# DD-649 U.S.S. ALBERT W. GRANT

By Terrence P. McGarty and Elaine (Carlson) Dorland

### **DD-649**

## Common Men, Uncommon Valor<sup>1</sup>

By

Terrence P. McGarty

and

Elaine (Carlson) Dorland

### DRAFT

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#### THE SECRETARY OF THE NAVY WASHINGTON

The Secretary of the Navy takes pleasure in commending the

#### THE UNITED STATES SHIP ALBERT W. GRANT

for service as follows:

"For outstanding heroism in action against enemy Japanese forces during the Battle for Leyte Gulf, October 24 to 27, 1944. Conducting a determined torpedo attack against a Japanese task force in Surigao Strait on the night of October 24, the U.S.S. ALBERT W. GRANT closed range to fire her first half salvo of torpedoes and succeeded in scoring hits on a Japanese battleship. Although severely damaged when heavy enemy guns opened fire as she turned to retire, she remained in the battle area and successfully launched her five remaining torpedoes, scoring hits on other enemy units. With all power gone, fires raging, compartments rapidly flooding and over one hundred casualties to care for, she fought throughout the night to remain afloat. Finally, assisted by a tug from Leyte, she effected the repair of her crudely patched holes and the pumping out of excess water and oil, resolutely continuing damage control measures until she could be taken in tow to an anchorage in Leyte Gulf. Crippled but undaunted, the ALBERT W. GRANT, superbly handled by gallant officers and men, rendered distinctive service and upheld the finest traditions of the United States Naval Service."

All personnel attached to and serving on board the ALBERT W. GRANT from October 24 to 27, 1944, are authorized to wear the NAVY UNIT COMMENDATION Ribbon.

/s/ John L. Sullivan Acting Secretary of the Navy

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#### **Preface**

In June of 2006 on a trip to San Francisco I was travelling to see a former student who worked in the banking district. On I 80 I was to exit at the last exit before the Bay Bridge, but in classic style they had closed the exit and there was a small sign after the exit informing drivers of the now belated fact. Thus I was on the Bay Bridge but suddenly I knew what to do, turn off at Treasure Island and then swing back to my destination. So there I was sixty two years latter in front of the Treasure Island Naval Yard entrance. I just parked there for a few minutes and looked at the gate and tried to remember back...though to do from sixty three to one, but one could try. My father was stationed out of there in World War II and my mother had moved from New York to Berkeley to be close so that he could have a chance to see me whenever he could.

Upon my return to the East, I searched again for the Albert W. Grant and this time found quite a few hits. Two things struck me; first, I never knew it had ever been in any action at any time, second, the first name I saw on the ships registry was the daughter of the only friend from that time that my father had ever mentioned. Thus the beginning of this journey, back to 1944 and 1945.

This book is in many ways the collaborative efforts of many people. But more importantly it is a memorial to the men, its crew, who were from all parts of the United States, common men from common lives, who were gathered together in an uncommon time and performed uncommon acts, heroic deeds. Like their predecessors in the Battle of Salamis in 480 BC, in that early morning in October 1944 these men fought and persevered against tremendous odds against an enemy who viciously wanted to defeat them. As the Greeks saved democracy and humanity from the then onslaught from Persia, these men defended the same interests twenty five hundred years latter. The Battle of the Surigao Straight was in many ways the replay of the Battle of Salamis.

This book was written to better understand what transpired on the USS Albert W Grant from the early winter 1943 through the same period in 1945. It is based upon the written records made available to the authors from the men on the ship or their families and from oral interviews with dozens of the shipmates who were on board. These oral interviews were conducted over a period of a year and were done for the most part vat the residences of the shipmates. The interviews have been recorded and the quotes referred to herein are from those recordings. The written records used herein have, as best as the authors know, not been published. We have attempted to refer to each specifically as best as we can in each instance. The men thus speak for themselves. We have taken their words and placed them in a historical context. This book tries to blend together the crew as one organic entity. We were fortunate to obtain from family many of these first hand records which we have also reduced to electronic form along with the voice records.

The authors have also used other primary sources from US Navy Department records as well as from the US Naval Academy. Secondary sources are also used where appropriate to provide background and continuity.

We want to thank the men and their families for the time they spent with us. We have traveled across the country from Maine and Vermont, through Massachusetts, Maryland, Pennsylvania, Virginia, Tennessee, Kentucky, Florida, California, Nevada, New York, Ohio, Minnesota. We

have enjoyed many hours with the men and their families, having meals, saying prayers, and remembering those who did not survive and those who have already passed on. We have recorded hundreds of hours of interviews, and they are more than the war stories, they are tales of their lives and their families. Unlike many other books about the war, the men and their ships, this is a story of a specific ship and the men who came and went. It is a tale of two captains; Higginbotham and Nisewaner, two different men but capable and superb leaders who took their men into harms way.

For the senior author this is all new since his father had never really spoken to the family about this. Recently in talking with an old friend from grammar school and high school the senior author did find out that his father had relayed details about Saipan and Tinian to this person, a fact that was unrevealed for fifty years.

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#### **1 PROLOGUE**

When you flew into the old Athens airport, the flight frequently came in over a small island just to the west of Piraeus, where the airport was located. Piraeus is just a few kilometers from the city of Athens, a short cab ride into town. The island that the flight passes over is generally innocuous, a small piece of land with a small inlet. Nothing much to look at. In the heat of a Greek summer day, the person arriving at the old airport could have looked out of the cab window as they drove to their hotel and have seen ships, cargo and oil vessels, in the harbor and the small island and inlet just rising in the background. In the heat of the Greek summer there is a slight haze but the view is unobstructed.

The island that one flies over and which one sees as a backdrop to the harbor is Salamis. If one has no knowledge of history, then this island is a meaningless lump of rock and soil between the mainland and the Peloponnesian peninsula. If one understands history then this piece of land is one of the most important landmarks in our Western history. It was where the squabbling Greeks managed to assemble together under the leadership of Themistocles in September 25 of 480 BC and destroy the Persian fleet and their army. Xerxes the Persian king sat on his portable golden throne and watched the rabble of democratic Greeks demolish his fleet. This action by a democratic people against the ravaging hordes from the east was pivotal in the development of Western democracies and thought. If Greece had fallen, the concepts we now hold from Greek democracy would have fallen and the works of Aristotle and Plato, not to mention the great Greek dramatists, would most likely have perished as well.

Sitting at a bar at the Hotel Grand Bretagne in Athens on September 9, 2001, I was engaged in a discussion with a couple of Greeks and a Russian. We got around to Salamis. The Russian commented that we hear about Themistocles and Xerxes but we never hear about the Xenophon and other shipmates who were on the Greek triremes. Who were these men who dropped all their responsibilities to family and farm and joined in to protect their land. These men came from waring elements on the Greek mainland and the Peloponnese. My Russian friend went on to talk of many men who went to war, not the Generals, but the fighting men who are often not only forgotten but whose lessons have not been brought to the present. My two Greek friends agreed. At that time I had nothing to add to that conversation, war for some is a singular affair, for others it is a family matter.



Figure 1 November 1943, just before shipping out to join the ship, the author is the small guy.

One of the observations of the poet Auden in his poem on "Hodge Looks Toward London" is the recognition that in England until the First World War no soldier's name was ever remembered from a battle. In the United States the Civil War was out first War with the remembrance of the deaths of soldiers, and those remembrances were in the centers of the small New England Towns whose sons and husbands went to fight. One finds no such remembrances south of New England. The classic remembrance of course is the Wall for the Vietnam fallen. That is truly the first, a remembrance of the fallen men and women in Vietnam. In a strange way the newer WW II memorial is a throwback or possible even worse, it is a monument with few names, and names must be bought to subscribe.

In hometowns there are monuments to this War with names, at colleges there are walls with the fallen, but at the national monument one cannot find those who have won distinguished service crosses or navy crosses. Okinawa, Iwo Jima, Saipan, Guadalcanal and the others are missing, the men, and the women, are missing. Just as Themistocles is the sole player remembered at Salamis, the national monument memorializes a few. Furthermore, monuments as we see them today remember the dead.

One may ask, why not also remember the living, as they lived, not just as they fought. This period was a transition period for our society, a period where men from the hollows of Kentucky and Tennessee met the men from the Mountains of Vermont and concrete canyons of New York City to become one functioning element, in the case of the Grant a ship of the line. The ship is

comprised of all the men, those who perished in its defense and those who carried forth its memory, as told their children and grandchildren, or as kept in the silence of events past.

This history is one of a specific ship, from the time it set sail until when it returns after the War. It is a tale of the ship and its men. The classic phrase, that ontogeny recapitulate phylogeny, is one that states that by looking at one thing over its entire lifetime one can understand many things across one moment of time. Namely by looking at the life of a single ship one can understand the entire War and the men and forces in it. There may be some truth in that and this appears as we go through the story of this ship and its men.

#### 1.1 Planning and Character

The Second World War had several characteristics which made it different from many others. Like the Civil War there was a massive draft, a sweeping of men into the service from all corners of American life. Unlike the Civil War and World War I it swept men from College campuses, some of whom were prepared and some of whom were trained quickly into positions of command. Unlike the other wars many if not most of the enlisted men had excellent High School educations, in many cases the equivalent of today's colleges, they had four years of math, languages, sciences, history, they were capable, and there were lots of them. There was no education crises in the 1930s, there was an oversupply of competent teachers.

The United States had a population of about 100 million in 1941, one third that of 2007. It was a diverse population; immigrants from Europe and elsewhere, and many of the young men were second generation Americans. They were Irish, Italian, Scots Irish, Polish, German, Scandinavian, Greek, Hispanic, and covered fairly well the map of all of Europe. There were a few Chinese, and even African Americans and Philippinos, although the services were still segregated at the time the War began.

One prime example of the preparedness was the development of the Naval Reserve Officers Training Corps (NROTC). This was initially the responsibility of the then Captain Nimitz, who was in charge of the first effort at the University of California. The response from the University and the students was exceedingly positive. The University provided room and academic support and the students participated in numbers far exceeding those anticipated. This program expanded into almost fifty of the top schools in the United States including the likes of Harvard and MIT. It became a highly selective program and provided the Navy with talent that it would not have had access to otherwise.

The acceptance of non Naval Academy graduates into the officer corps did create a bit of a problem, and thus these men were made officers in the Naval Reserve, USNR, and not the regular Navy, USN. There was a strong Academy resistance to those who had not gone through the rigors, and some say hazing and bonding, of the Academy. However, many if not most Naval officers who were Academy grads would accept as soldiers in arms the men from the outside. This created a different world and environment than any prior war. An influx of highly educated and in most cases better educated men than what the Academy had produced. It was a challenge to absorb them and to integrate them into a common command corps.

The Navy in 1941 was different than the Army in may key ways. In 1941 almost all Navy officers were Academy graduates. That was not the case of the Army, even the Army chief of staff Marshall was not a West Point graduate. The Army had VMI, the Citadel, Texas A&M and other schools which fed the Army officer corps. The Army had a tradition of their being many exceptional schools which educated Army officers, regular Army officers. VMI in Lexington, Virginia had a long tradition going back before the Civil War. It graduates were in equal ways men of the same caliber and competence as the West Pointers.

The Navy had only Annapolis. That made the Navy officer corps very insular. The officer corps was a closed club. As Spector states, the Academy graduates were as midshipmen expected to understand and demonstrate, integrity, leadership, judgment and most importantly loyalty to the service and each other. The issue of loyalty to each other was a key factor<sup>2</sup>. We shall see how this was to change. But first we see how it was at the beginning, especially with Hunt Hamill and his first captain who had a visceral hatred for non Academy officers, and equally for any non regular Navy, and in may ways was a Captain Queeg like character from the Caine Mutiny<sup>3</sup>.

The Naval Academy was less an academic institution than a training school for officers. It did not teach the sciences needed for performing the tasks which the Navy would find itself as much as it built a Naval officer corps. Academically there were better trade schools. It was a far cry from being a college and it took the establishment of the Naval War College to create even the semblance of understanding warfare and naval strategy. The Academy graduates could man pumps, manage motors, and sail a ship, perhaps even dock one, but to understand the fire control problem or even the hydrodynamics of a destroyer there was no way.

The Navy changed and changed dramatically when the new breed of non Academy officers arrived. One example provided by Spector is the case of two firemen, one from New York and one from Boston, becoming officers. In 1942 Burke and Kildruff joined the Navy as officers<sup>4</sup>. Both had been professional firemen and on their repective ships they trained and drilled their crews using non Navy approaches. When both ships were hit by enemy fire the techniques used by these men were key to saving the ship and the men. There are thousands of other such example; radar, radio, fire control, and many other areas.

Spector notes that the selection of non-Academy men to serve on carriers for example brought with them a well educated sense of reality and team work as well as an ability to innovate and deal with complex new situations as arisen on the handling of the landing of many aircraft under war conditions<sup>5</sup>. Academy men would have to follow the book, the new men solved the problem.

<sup>&</sup>lt;sup>2</sup> Spector, Eagle and Sun, p. 19.

<sup>&</sup>lt;sup>3</sup> Herman Wouk, 1951 Pulitzer Prize winning novel. Wouk had joined the United States Navy at the beginning of the War. He served in the Pacific and he is quoted as saying "I learned about machinery, I learned how men behaved under pressure, and I learned about Americans." Wouk has served as an officer aboard two destroyer minesweepers (DMS), the USS *Zane* and USS *Southard*, becoming the XO of the Southard.

<sup>&</sup>lt;sup>4</sup> Spector, Eagle and Sun, p. 557.

<sup>&</sup>lt;sup>5</sup> Spector, Eagle and Sun, p. 309.

That is not to say that the Academy men were dolts. In fact we see Nisewaner and Higginbotham as great stars in the category of leaders and we see other men like Wylie who conceived of and implemented the CIC concept. In fact if Wylie had not been an Academy man then most likely the CIC would not have evolved as it did.

On the enlisted men side it was even more complex. The growth in the Navy from a mere 150,000 men in 1939, to 350,000 in 1941 at Pearl Harbor to over 3.6 million in late 1943 required drastic efforts. The Navy, unlike the Army, required trained specialists for more than half the enlisted men positions. Whereas the Army and the Marine Corps could effectively mold almost any man into a soldier, a buck private or even a PFC, these were E1 and E2 ratings, the Navy required millions of Petty Officers, E4, 5, and 6, trained specialists, to do jobs with high pressure steam turbines, Fire Control, Radar, Radio, Torpedoes, and other highly technical areas.

This meant culling the best men and frequently older men, men who were to be specialists and in many cases of the same age and even older than the junior officers, and men have a great deal more practical experience. These men were also married and had families and their values had matured a great deal more than even the junior officers who were fresh out of college and single.

There is then one final issue about the men. This is the men at the top. FDR had been Assistant Secretary of the Navy under Wilson. He viewed himself thus as a Navy man. It was a similar view of himself as a person skilled in the ways of the world, international affairs, based solely upon a trip to Europe when younger. FDR had his views of things and they were molded all too frequently less in factual experience and knowledge than in FDR's personal view of himself. This became an essential element in how the leaders of the campaigns in the Pacific were chosen. Nimitz was assigned to replace Kimmel in late 1941 after Pearl Harbor. Nimitz was head of the Bureau of Navigation, the Navy personnel bureau, and as such was responsible for assigning and managing the promotion process of all officers in the Navy. Harry Hopkins, the right hand man of FDR, befriended Nimitz. FDR personnel selected each and every Navy Flag officer, Admirals<sup>6</sup>.

Nimitz would be his conduit and effectors of the choices. It was for this reason that Hopkins would recommend to FDR that Nimitz replace Kimmel, despite the fact that Nimitz was almost a hundred persons lower for the choice in line of succession. But it was a brilliant choice even if it may have been for reasons other than the fact that Nimitz was the best. Then there is MacArthur. MacArthur was a direct threat to FDR. Republicans wanted to have him run for president. FDR knew it<sup>7</sup>. MacArthur was grand strategist and a hero at home. Despite the fact that he had single handedly lost the Philippines after having been warned, it would be Admiral Kimmel and General Short who would be court marshaled.

MacArthur, refused to give General Brereton the order to launch his B 17s in the Philippines, knowing the Japanese were coming, and this gross negligence by MacArthur resulted in the death of ten times the US troops as were lost in Pearl Harbor. MacArthur was an icon.

<sup>&</sup>lt;sup>6</sup> Spector, Eagle and Sun, p. 21.

<sup>&</sup>lt;sup>7</sup> Spector, Sun and Eagle, p. 144.

MacArthur was feared by FDR. MacArthur was beloved by his troops, as long as they did not know him from the Philippines. Those from the Philippines called him derogatorily "dugout" Doug". The tales of the Grant is a tale of going back and forth between these two men. It is clear from Hamill that he though highly of FDR and MacArthur. It is clear talking with many of the men that MacArthur was less well thought of than a carbuncle in a sensitive spot.

#### 1.2 The Pacific Battle Theatre

In December 1941 when news of Pearl Harbor came across radio sets in the United States very few people had any idea where Pearl Harbor was. In fact, almost everyone had o idea as to the South Pacific in any way at all. A few may have heard of Australia but by and large almost no person knew of the Marshalls, Gilberts, Solomons, Marianas, or for that matter the Philippines, despite the fact that the Philippines was an American protectorate at that time. Geography becomes destiny. The United States borders both the Atlantic and the Pacific, and this war brought that fat home very quickly. Even though the schools in the 1930s were probably exceedingly better than today, geography, especially world geography was not a strong suit. A visual view of the world would become an asset. One had to be able to "see" the Pacific, not as a vast Ocean but as a set of interconnectable stepping stones. One had to have an understanding of how to get from one point to another, and to support the logistics of these stepping stones, In a sense the Pacific war was walking backwards over the steps of the Polynesian and other Pacific Ocean people who went east, and sail west.

To understand the Grant and its men, their actions and acts, it is essential to understand the map over which the sailed, and the battles in which the fought. The following simplified map of the South Pacific gives a simplified understanding of the key locations, their relative size and their relative location. The names that we will find on the journey of the Grant will be the Admiralties, the Marianas, the Philippines, the Palaus, Borneo, and then Japan. Islands all, hot, humid, overgrown in many cases. But in all cases they are islands and stepping stones to Japan, the ultimate island.



Figure 2 A Simplified View of the Pacific War Theatre

The above is a play board of sorts. In December of 1941 it starts with Japan controlling almost all of the pieces, but not Australia nor New Zealand, but they are threatened. The game then is simple; win back all the pieces. This story starts in late 1943, when some of the pieces had been won back but there was still great uncertainty and even greater threat. The game, again was simple, but had to be won. There would be many playing pieces on each side. The Grant would be just one, and its men a mere few of the many involved, but the Grant would make a difference.

The following is a true view of the locations shown in the prior graphic. The distances are tremendous. The span of sustaining the ships, repairs, provisioning, fuel, ammunitions, and even the transfer of men is enormous.



Figure 3 Map of the Pacific War Theatre

When one looks at the scope of the war, remembering that there was also a war in Europe of as large if not larger a scale, as well as in Africa and in Burma and southeast Asia, one would wonder how the forces achieved what they did in so short a time. From nothing to completion in less than four years. As one reads through this history perhaps some of these reasons will come out. However, some were quite evident as one looks at the history.

The end game was clear; total unconditional surrender. The tactics were clear; whatever it took; to annihilate the enemy and to deploy and support the forces required to do that. The leadership was focused: if a general or admiral did not work, they were gone, replaced with another. It was not like Lincoln and McClellan, there was no general who could hold the victory off because of fear and indecision. FDR knew how to play them all and the only one he was concerned about, MacArthur, he managed to play his ego brilliantly and avoid a political conflict. This was not to be the case in some latter wars; Korea and Vietnam to be specific, Mogadishu, Somalia and Iraq as of late. End games, tactics, resources and leadership are apparently the four elements needed.

#### 1.3 The Pacific War and War Plan Orange

The United States military, both Navy and Army, had been considering war plans since the 1890s. The plan which had focus in the Pacific was War Plan Orange, WPO, which was based upon an assumption that Japan would be the aggressor and attach the United States' outlying interests. The plan was a naval plan, namely the assumption was that the attack would be navy to resources, namely ground resources. There was limited inclusion of aircraft in the plan even as it was modified through the 1930s.

The plan in many ways was an offshoot of the strategic thinking of Alfred Thayer Mahan, one of the first heads of the Naval War College located at Newport, RI. Mahan had developed various theories of warfare, including naval warfare, in the latter part of the nineteenth century. Mahan had an approach which looked backward at past battles and then using the facts as presented to him at the time attempted to do two things; (i) develop some generalizable principles which could be employed to secure victory, and (ii) develop strategic scenarios for potential wars. In essence Mahan was a war gamer. He developed the principles and through his tremendous writings popularized this concept. He had many adherents including President Theodore Roosevelt.

Mahan had a concept that there were six principal conditions which affected the sea power of a nation; (i) its geographical position, (ii) its physical conformation, (iii) the extent of its territory, (iv) population, (v) the character of its citizens, and (vi) the character of its government. These principals were to many today obvious but that the time it was Mahan who started such strategic thinking, trying to incorporate in some manner a set of measurable elements in assessing war. Rather than just saying the classic "I think....", Mahan approached the problem by saying "The facts are....." And to Mahan facts were frequently better than ones opinion, informed or otherwise.

The Naval War College, as founded and a for a while run by Captain Mahan, would on an annual basis bring up and coming officers in for training in naval strategy. As part of that training, the group would participate in a war gaming exercise. There were many such War plans, including war with Great Britain and Canada. However one of the generally more interesting was War Plan Orange, WPO. WPO had three phases as a continuing part of its execution. The Phases included:

Phase I: The US had many remote outposts in the western Pacific and these outposts were generally lightly defended. The Japanese would attack these distant outposts. This would be the opening gambit. The question would be where, which ones, and how critical would they be.

Phase II: The US would then attack westward using its then existing naval and air power. The inclusion of air power was introduced in the 1930s. The naval and air power elements, excluding large troop engagements in this phase were political decisions made by Roosevelt, FDR, during the Depression. The country could not afford nor would the politic and tolerate a large standing Army. Some ships and some aircraft were acceptable so much of the defense bet was on naval and air capabilities because they were viewed at less expensive than large scale troop elements. Also they did not require a draft or other such unacceptable political move. Phase II would then be a holding action until the US could respond.

Phase III would take time and resources; men and materials. It would the island by island hopping phase and this meant that a great deal of troops and logistics would be required. However, the strategy and assumption in Phase III was that by acquiring the islands and bases and by choking Japans sources of oil, food, and other strategic elements, Japan would surrender without having to ever set foot on Japan itself. To get to Phase III, military planners relied upon conscription. Large numbers of men would be required and they had to be trained and supported. There were several observations of the WPO. First, there was a recognized need for an expeditionary force. Namely a readily deployable Marine Corps integrated with the Navy. The Army may or may not fir in but in a Naval war game the Navy was the prime player. Integration of forces was at best a distant forethought. Second, was the total lack of integration of Japanese culture into the plan. The Japanese with Bushido would never surrender short of total annihilation. The plan did not account for the culture, a key element in the Mahan set of principals. Third, the plan included what would become the principle of strategic bombing, namely that the air power could have an end in itself. All throughout World War II air power would have limited strategic impact, Japan and Germany lived through Dresden and Tokyo fire bombings. It was only Hiroshima that began to get Japanes attention.

Expeditionary versus massive forces was a Navy versus Army strategic difference. It would be the difference between Nimitz and MacArthur. Nimitz effected his island hopping via expeditionary forces whereas MacArthur used massive troop deployments. In both cases however they had overwhelming numbers of troops.





Figure 4 War Plan Orange, see Miller

Ironically Hawaii does not even appear in the WPO of the 1930s.

In 1925 an English writer, Hector Bywater, who was a journalist living in Japan, was a military journalist who had developed an excellent knowledge of all the capabilities of the worlds naval powers. After a brief while in Japan he came to see that Japan could after World War I become a strategic threat. In 1925 he published a futuristic book about a futuristic war, one in 1931-1933, initiated by Japan against the US. In certain ways the book would presage Pearl Harbor. The attack was on the Philippines, and in a manner which almost mirrored what actually happened on December 8, 1941 and following. If MacArthur had read and understood Bywater then perhaps he may have learned something. The Japanese attack the Panama Canal, rather than Pearl, and the IS forces via their naval resources retaliate. The book alleges to cover only the first two years of the war.

Bywater was republished in early 1942. It is interesting to see how a college student newspaper responded. The following is from the MIT Tech, the MIT newspaper, in 27 March, 1942;

"Bunker Hill Bushido is what wins in this Hector Bywater his **The Great Pacific War** which has just been published again. It was fiction in 1925, but now it reads just like the newspapers, only too much so. Seems the war then was all imaginary, but Mr. Bywater's Japs did all the things pretty much that Hirohito's boys have done and had Uncle Sam hanging on the ropes. He gets smart, though, just before the bell. Should have been required reading at Annapolis, 1925 to date. (Copy to Admiral Kimmel.) A new life of Edgar Allan Poe there is, by this Arthur Hobson Quinn. It is Scholarship, First Class, and has all the Facts. It's the kind of biography J. Edgar Hoover could have written if he'd had two of his best men tailing Poe every minute of his (Poe's) life. You can find out all about Poe except How and Why."

Even more interesting is the paragraph which preceded this one:

"Funniest reading of the week, says Brother Alpha, was this Nippo, general his letter to General Wainwright on Bataan. Seems the slanteye was giving the U. S. general a chance to be a hero like the boys at Hong Kong, Singapore, and Java and that surrender would be a Beautiful Thought, on account of Bushido. No matter how you slice it, says Alphie, it's still Bushido, but no Nippo has got an exclusive patent to make, use, or sell same. We got Bushido, too, Bunker Hill model, right there on Bataan."

This is MIT, not Harvard nor Yale, nor Columbia. However the response at that time was common. Unbeknownst to many of the students at the time, there was already a large wooden set of shacks constructed on the campus at MIT, called the Radiation Lab, which was designing and producing the radars to be used on the ships contained herein. These would become as strategic to the victory as so many other elements in that War.

Mahan thought strategy, he changed his views frequently as he obtained new information. He relied on "facts". This is what he tried to inculcate in the Naval War College. Facts can and do change. Thus Strategy is not static, it has to have a dynamism which is reflective of reality, namely the facts. It is not a religion with unchanging tenets. It must reflect the reality of the time. Mahan at first could not envision any country other than Britain threatening the US since only they had a true comparable naval power. But that was in the 1890s. The assumption was large naval power and fact at that time was Britain. However as things changed the facts then allowed for the inclusion of Japan as a threat and the reality of WPO became more as every day passed. WPO became in many ways the road map for the journey the Grant will take.

It would be fair to say that most likely none of the men on the Grant had read Bywater and probably never heard of Mahan, with the possible exception of Nisewaner and Higginbotham, and even for them it would have been as an Academy student at best in some class where they had to memorize, not think. As Nisewaner would say; "Act, don't think!" that was the dictum of ship command. However there were others doing the thinking; it was Nimitz, a believer in Mahan, and a strategist who did just that work. His actors were Halsey, Kinkaid and Spruance, albeit Spruance was also a key strategic thinker as well.

Miller recounts further details on WPO. He makes certain statements which further clarify the strategy in WPO. Specifically Miller states amongst others the following four observations as to the Naval mindset just before the War:

"The American strategists war objective simply stated was to win. They rarely reflected on the chance of a US defeat."

There was no perception of defeat or of any form of compromise. Thus the attack at Pearl was to be an electrifying shock.

#### "The goal of unlimited war was unlimited victory."

This principle evolves into the construct of unconditional surrender, total unmitigated defeat of the enemy and total and complete subjugation. The goal is critical to the way the men thought. This goal would be promulgated downward to every man, every able bodied seaman knew what they were fighting for. There was not political battle in the background, victory was total and complete.

"The strategy the planners adopted was....unlimited economic war."

The economic element may have been what some historians contend started the war. The FDR embargoes of July 1941 turning off oil to Japan may have been a "last straw". However the facts speak otherwise, Japan was invading Borneo and Brunei, taking the Dutch oil fields, and the embargo may frankly have been superfluous. It became an excuse for Japan, and a weak one at that.

"The perception of a limited public endurance goes far to explain the ....vigorous counterattack....expect a long war but...operate to gain victorious conclusions in the minimum possible time..."

Roosevelt was first a politician, and second he wanted to be re-elected. He knew as did the military that the public will allow war for just so long. Thus the public must be given victories, on a periodic and continuing basis. Getting stuck in any swamp will not allow any war to continue. The public will revolt. FDR knew this well which is one reason for the attacks on North Africa, the Germans were far and few between, the US was untested, and many small victories were achievable. The island hopping strategy could, if successful, achieve these small continuing victories. The public would be there to support the effort.

#### 1.4 A New Method of Warfare

The War in the Pacific, especially the Naval aspects, and most importantly the destroyer elements, introduced a dramatic change in warfare tactics and strategy. Technology played a great role, not just the technology of bigger and better weapons, but the technologies to use information better. This in many ways was the beginning of what we now call the information age. Our fathers, grandfathers or great grandfathers in this War and on these ships had at their disposal a wide set of technologies that even today we are just beginning to understand. Radar,

radio, computers, fire control system, not to mention intelligence systems and the like. In the CIC the XO and the captain would have command of the battle action in real time. IFF, identification friend or foe, was a VHF radio system which allowed for the ready and secure identification of friendly ships or aircraft. It reduced the errors resulting in death due to friendly fire, the euphemism which excuses all too frequently gross negligence.

Secondly, the tactics and strategies developed in this War are not those of a past generation but of a future one. We consider here the concept of swarming, a strategy which is currently viewed as a major threat in a world of terrorists. However in the Battle of Surigao we argue that Smoot, who led DESRON 56 of which the Grant was a key part, deployed the first swarming attack against the oncoming Japanese fleet. It was a brilliant move and little understood by the classic Naval Strategists at the time<sup>8</sup>.

As one looks back over sixty years on the battle of Surigao Strait, and especially as one looks at the new strategies of war such as the proposed concept of swarming, one can see that Surigao Strait was NOT the last great Naval Battle, but frankly the first battle of a new way of warfare, namely that of swarming<sup>9</sup>.

Swarming has been characterized by Arqilla as follows. It has the following set of Basic characteristics:

- 1. Autonomous or semi-autonomous units engaging in convergent assault on a common target
- 2. Amorphous but coordinated way to strike from all directions
- 3. "sustainable pulsing" of force or fire
- 4. Many small, dispersed, inter-netted maneuver units
- 5. Integrated surveillance, sensors, C4I for "topsight"
- 6. Stand-off and close-in capabilities
- 7. Attacks designed to disrupt cohesion of adversary

"Swarming has two fundamental requirements<sup>10</sup>. First, to be able to strike at an adversary from multiple directions, there must be large numbers of small units of maneuver that are tightly internetted—i.e., that can communicate and coordinate with each other at will, and are expected to do so. The second requirement is that the "swarm force" must not only engage in strike operations, but also form part of a "sensory organization," providing the surveillance and synoptic-level observations necessary to the creation and maintenance of "topsight." Swarming relies upon "the many and the small," as well as the notion of a command element that "knows" a great deal but intervenes only sparingly, when necessary. These two fundamental requirements may necessitate creating new systems for command, control, communications, computers, and intelligence (C4I)."

<sup>10</sup> From Arquilla.

<sup>&</sup>lt;sup>8</sup> McGarty, Swarming and Naval Warfare, 2007, MIT LIDS Working Paper. <u>http://mit.edu/mcgarty/www/MIT/Swarming%20in%20Warfare%20Paper.pdf</u>

<sup>&</sup>lt;sup>9</sup> See Arquilla et al at Rand.

But when the Grant and Oldendorf's entire group assembled in Surigao there were several key technological changes as well as attack strategy changes. First, technologically the whole attack body had a communications system facilitated by the TBS, the between ships radio system, it had highly effective radar for determining where the enemy was, it had very sophisticated computers for targeting and fire control, especially of the torpedoes, and finally it had the strategic element of the Combat Information Center. This was the first battle where all the elements came together for the first time; command, control, communications, computing and intelligence. The C<sup>4</sup>I scheme of Arquilla for what he perceives is the next generation of warfare using C<sup>4</sup>I was there in Surigao for the first time. Unlike Jutland, Midway, Coral Sea, or any of the prior Battles, C<sup>4</sup>I was active. Furthermore the weapons were now effective.

Torpedoes were used extensively and then backed up by the battle lines big guns. The PT boats and the Destroyers, DESRON 24, 54, 56 literally swarmed the Japanese fleet of Nishimura. The Pts at the entry to the Strait and the Destroyers as it come through. The swarm was in constant communications, and there was, with the exception of the Denver, constant and effective command and control via the CIC. Where the arrogance of a captain, on the Denver, overruled the CIC control element, there was damage, where there was not, such as the Pennsylvania there was success. Thus it is argued that understanding Surigao is understanding swarming warfare. Understanding the Grant and its sister destroyers and their coordinated action, highly linked via the CIC with the entire attack group is understanding the future of naval warfare.

#### 1.5 Prelude

In the context of the Second World War, there were elements which helped facilitate the ability of the commanders at Surigao to effect a swarm. These elements range from a long range process of war planning, called at that time War Plan Orange, which envisioned a war between the US and Japan. There were many other such War Plans but this one by the late 1930s seemed to be the one of the most interest.

Thus many commanding officers, especially Naval officers, had the opportunity to work the war game elements of WPO. Second there was a change in technology, and one which was all too quick; in weapons, communications, sensors such as radar and sonar, and most importantly the beginning of a systems view to warfare. Third, and this we believe is a critical change, there was a blending in the Navy of Naval officers with Academy training and NROTC and V7 USNR officers. Thus there was a mix of new people and new ideas. For example, Nimitz personally headed the first NROTC unit at UC Berkeley<sup>11</sup>. He had been very successful there and the men coming from those units eventually became a key set of players in evolving war strategy.

#### 1.6 The Weapons and Technology

The canons of the man-o-war or even of the World War I battleships ships were replaced by integrated command, control and communications systems and computer controlled guns towards the end of World War II in the Pacific. The destroyer was designed for fast but lethal

<sup>&</sup>lt;sup>11</sup> See Potter, Nimitz, pp. 142-143.

attacks in a divers set of wartime environments. It is designed to deal with aircraft, submarines, other ships, land support, and whatever else may come along. It may be used as a picket ship where it has the duty to guard at a distance an aircraft carrier, it may act as a torpedo launcher, attacking enemy vessels, and it may play the role of antisubmarine warfare vessel searching out enemy subs and attacking with its antisubmarine weapons such as depth charges.

All of the weapons on a destroyer in World War II were supported and/or facilitated by what at that time was high tech support systems. The figure below depicts how the destroyer as a weapon system was operated in late 1944. It was an integrated complex system which was to be inter networked via the CIC.



Destroyer Weapons Systems Command, Communications and Control

Figure 5 Weapons Systems Elements and Architecture

#### 1.6.1 Radar

The Destroyer had three types of target sensors; radar, the Fire Control System, and sonar. Radar is generally thought to be the most prominent, however the Fire Control System was truly a marvel and went to the heart of this new approach. Radar on US Naval ships in World War II used the generation and transmission of extremely high frequency pulses to send out from an antenna and to get reflections from targets and then using this information to ascertain certain information about that target. New generations of this equipment were issued almost monthly and upgrades were a continuous process as the developers themselves learned more. There were several such radars, each for a separate purpose. One was for long range detection of aircraft (SG), one for integrating with the Director and fire control system (Mark 4) and one for surface scanning (SG<sup>12</sup>).

Battleships and Cruisers used different types of fire control radars. These were the Mark 3 and Mark 8 fire control radars and they are compared in some detail the table below. The system are critical to the understanding of this battle. The Mark 3 and Mark 8 were used in conjunction with the Mark 38 and Mark 34 Director respectively, the optical unit combined with the stable platform or reference plane.

The battle line of the US in Surigao Strait was composed of the six battleships were evenly split between Mark 3 and Mark 8 radars. The battleships with the Mark 8 did most of the shooting since they could acquire the target faster and had better accuracy.

#### 1.6.2 Fire Control Systems

Fire control systems were undoubtedly the most complex systems on board a ship. The problem that a fire-control system solved was an extremely complex problem of spherical trigonometry, estimation, identification, and prediction<sup>13</sup>. The fire control system in a Fletcher class destroyers was in many ways the first <u>electronic warfare system</u> ever deployed. It was a harbinger of what electronic warfare has become today. The seamen on the destroyers did not fully appreciate where they were in the development of new warfare systems, they were using their brains more that any warriors in the past. They were not just the oarsmen at Salamis, but each played an integral role in the fully integrated system. It consisted of the following three elements:

1. Director: The Director was an optical-mechanical device which allowed for the determination from a defined point on the ship of the targets range, azimuth and elevation. This meant that with a good Director and an experienced fire control man operating the Director the ship could at least fire where they should if they could see the target.

2. Stable Platform: This has also been called the "Stable Element". This was an imaginary platform or plane which was created by the use of a gyroscope. If one recalls a gyroscope from childhood, the spinning wheel of the gyro tends to exert a force if one tries to rotate it in any direction. The force tends to keep the gyro in an orientation which remains fixed relative to where it was when it started rotating. Thus, if we start a gyro rotating, and we move it we would not e force trying to send it back to the original position. If we have a gyro with three

<sup>&</sup>lt;sup>12</sup> Regarding the history of radar refer to Buderi, or Price, or McMahon, or Friedman, or Fisher or Hezlet; each of the authors provide some insight. The work of RV Jones is critical also in understanding this issue. The author worked with Eric Ackerman, who worked for Jones. Ackerman was the author's deputy while in Washington and the author has a slightly different view, of course from the British perspective. In addition the author worked in the remnants of what were the Rad Lab at MIT and is also influenced by many of the views there as well. The books referred to in this footnote have their own spins on this issue. In reality it appears that the Naval officers in battle were the ones to best understand applications and integration. The details of the design are in the MIT Rad Lab Series, Ridenour. The Navy documents are the US Navy Ordnance and Fire Control, Radar Electronics, Radar Systems, Fire Control and Radar. It was Wylie who saw that one could get lost just looking at all the PPI scopes and not obtain critical information and more importantly act upon that information, Furthermore integrating the radar information with other data as may be available over the TBS was critical.

<sup>&</sup>lt;sup>13</sup> Clymer presents a simplified review of the mechanical and electro-mechanical systems. The US Navy Torpedo Fire Control document is an excellent overview of the torpedo side.

independent axes, we can measure movement in all three axes, namely pitch, roll, and yaw. If we put little sensors, called synchros, on each of the axes, we can measure the attempt to move them and we cane then control a platform or element to keep it in the same configuration it was in originally. This feedback type of system was used to create the Stable Platform or Stable Element.

3. Computer: The computer was at the heart of the fire control system. The computer aboard these vessels was an electromechanical system which allowed for several functions:

- First, the computer would estimate a targets range, range rate and other key parameters and from these estimate where to send the shell.
- Second, the computer would determine what the elements of the coordinate systems each gun was in which it was required to fire. Each gun was in pitch, roll and yaw, and it also has a powder load, air humidity, wind direction, and other factors. These would all be estimated based upon inputs.
- Third, the computer would calculate the time to fire and the angles for the guns to be in at that specific time so that the target could be hit with reasonable accuracy.

The computer was a brilliant design. The synchros used allowed for the conversion from mechanical to electrical and then from electrical back to mechanical. The "programming" of this computer was somewhat fixed because it was solely for use as a ballistics aiming device. The computer used for the torpedoes was all mechanical and in many ways it was even more ingenious.

The Director for the guns, located on top of the bridge or for the torpedoes which was literally on top of the torpedo tubes, was an optical mechanical device which could calculate range, range rate and similar target parameters. It required seeing the target. The radar could also be used in firing the guns but not the torpedoes.

From the Director one could determine where the target was in range, azimuth and elevation. In addition if the target was moving we could estimate its velocity in all three parts as well, namely range rate, azimuth rate and elevation rate. This was sent to the Computer. The job of the Computer was to now tell the Gun where to point and how to fire to hit the target. Thus the computer had three jobs.

• First, it had to know where the target was and where it would be. This job required that given the information from the Director it could project where the target would be when the gun fired so the gun would be pointing at the target. In a simple example if we had movement in just one direction, and we knew the distance at one time and the velocity, then we could tell where the target would be at some future time. We could assume that it takes two seconds to fire the gun, and that the target is moving at 300 mph, or 440 fps, we would then aim at 880 feet ahead of where it is now. But it takes the shell a short while to get there as well, we have to factor that in as well. For example if the shell is going at 880

fps we then have to know where the target is not just two seconds from now but 2.5 seconds from now! All of these details must be kept by the Computer.

- Second it had to know where the gun was really pointing at the time of the firing. The gun was on the ship. The ship was moving, it was pitching, rolling and yawing. It was bouncing all over. The system knew where the Stable Platform was, by use of the gyros. The system then had to determine where the gun really was and more importantly where it would be when it fired the gun. Therefore the gun had to have its own gyro tracker and it had to relate its position to the Stable Platform.
- Third, the computer knowing where the target would be when the gun fired and where the gun was when the gun fired, it would have to tell the gun what azimuth, elevation and speed it had to be loaded at to hit the target. At that point the Computer fired the gun. Hopefully it would hit the target.

#### 1.6.3 Weapons

The weapons on board the ship fell into four categories:

- 1. Sea Targets
- 2. Land Targets
- 3. Aircraft Targets
- 4. Submarine Targets

The land targets were hit using the 5" guns in most cases. They were tied into the Director and the guns were then targetd to specific land targets. The aircraft targets were hit using the 40mm and the 20mm cannons. They were very effective with these targets and could create a screen around the Destroyer and the vessels it was monitoring. The submarine targets were hit with depth charges.

The sea targets would be hit with guns or torpedoes. The Destroyer evolved from a torpedo ship and this was its earliest missing before the War. In World War II the torpedo function remained.

The fire control problem is thus seen to be extremely complex. It requires sophisticated understanding of the ballistics of shells, the multidimensional changes from one platform to another and the ability to operated a mechanical analog computer to make these calculations. It also requires the understanding of estimating and predicting the movement of complex targets such as attacking aircraft. It means that the fire control personnel must be able to "think " real time in multi dimensional space.

The fire control men and officers must have skills to do all of the technical tasks and to do them at a time when they are being attacked and if they are not successful in their work the result was death. The group of them were educated in high school, even the college educated officers were all too often liberal arts graduates, the technical grads were sent to more complex technical tasks. Yet they all had the strong educational base to handle these complex problems.

The first and largest gun was the 5". There were five of these guns, two fore and three aft. They could be controlled by the Computer or if the Computer was down they could be manually aimed. A gun crew fed the shells into the gun from below and the gun was manned internally. The gun, when under Computer control was fired remotely. There was a separate gun crew in the five gun mounts during General Quarters.

The next largest gun was the 40 mm guns. They could be used for sea, land or air. However they were intended primarily as anti aircraft weapons mainly. An example of one is shown in the Figure below. The sighting mechanism was somewhat complex and it was moved by powerful electric motors at its base. It took a gun crew of eight, mostly ammunition passers. One can see in the picture the pointers sight which was aside the gun barrel.

Using the 40 mm to defend against aircraft meant filling the sky with flak, fragmented metal burst apart and meant to incapacitate any aircraft that went through it. A direct hit was near impossible, the aircraft moved at speed in excess of 300 mph and moved in directions which had limited continuity so as to pick and follow a track. In addition the 40 mm was somewhat sluggish as a weapon to hit such fast moving targets.

The 20 mm anti aircraft guns are shown below. Like the 40 mm they were intended for air protection. However the gun crew was only half that of the 40 mm. It required only 4 men. The sighting was visual. A typical 20 mm is shown in the picture below.

These three types of guns were the total armament on a Destroyer.

Torpedoes were historically the mission of a Destroyer. There were two torpedo mounts on a Destroyer with five torpedoes in each mount. There were no spare torpedoes and the loading on the tubes was a fairly complex procedure. As shown in the Figure below, which is a fur tube mount from the USS Cassin Young, the tubes are mounted atop ships and could rotate in all directions. The torpedo is composed of about 500 pounds of explosive and on the Grant they were all configured for contact explosion. Namely they had to hit their target to explode.

The torpedoes were gyroscope controlled and their control was a sophisticated combination of manual sighting and homing on by means of the internal gyros. The torpedo was driven by a motor fueled by pure ethanol, alcohol, which had a pink hue and was called "Pink Lady". The alcohol was oxidized by means of compressed air or latter by using hydrogen peroxide, which generated oxygen. The torpedo once set on a course, held the course and depth by using the gyro for an initial course reference and using a pressure measuring device to maintain depth. This once a torpedo was launched it went in a certain fixed direction and at a certain fixed depth.

The torpedoes, the Mark 15, were 21" in diameter and 24 feet in length and carried about 500 to 800 pounds of an explosive called Torpex. Torpex was composed of 45% TNT, 37% RDX and 18% Aluminum. Torpex at the 500 pound load had the explosive power of 1,000 pounds of TNT. Thus on a single torpedo mount there was from 5,000 to 8,000 pounds of TNT in explosive power. A single hit here could be the death knell for a Destroyer.

The targeting of the torpedo can be performed via the Director. The target ship is moving in some direction relative to the Destroyer and it is moving at a certain speed. The Destroyer must the fire the torpedo so that when the torpedo reaches a certain point the ship is also at the same point. Thus knowing the direction of the ship and its velocity one can determine what the line of movement the target is on. Also knowing the angle of the torpedo and its speed one gets another line. To get them to meet a certain set of equations must be equal. This process is performed by means of an elegant set of gears in the ranging and targeting device which controls the torpedo.

There are a few studies which depict the potential accuracy of the torpedo but many of them relate to aircraft and submarines at closer range. As will be seen, if one looks at a battle condition of nighttime, long ranges, and fast moving ships, the effectiveness of torpedoes in that case is quite limited. One study by Morse and Kimball at MIT considered several attack patterns<sup>14</sup>. These were typically for in close attacks by submarines. If one were to extrapolate these numbers for the ranges used by Destroyers one would see that the chance of ever hitting a ship target was very small.

The following Chart does depict the kill probability for a certain configuration as a function of range and dependent on the number of torpedoes fires. At close range it is a cake walk. As the range increases the chance gets smaller and smaller. If you have three destroyers and each has five torpedoes, then with 15 torpedoes and at 6000 yards and with good targeting you get a high chance of one hit.



Figure 6 Torpedo Kill Probability versus Number Fired

The implications of this above analysis to the swarming approach are quite clear. Let us assume that a small swarm of destroyers, say three, can attack the enemy elements, in this case Admiral Nishimura's flagship the Yamamoto, then if they can get within 6000 yards of the target 15

<sup>&</sup>lt;sup>14</sup> See Morse and Kimball Operations Research, pp 114-122.

torpedoes should yield a 98% kill probability. Indeed this is what happened. The high kill probability was a direct result of the flexible deployment strategies on the part of the DESRONS as well as the ability to make changes on a fully distributed manner within each section, and finally the TBS allowed a fully inter-netted communications system. Also the accuracy of the Torpedo Director fire control mechanism allowed each ship to achieve substantially higher kill ratios per torpedo, they torpedoes were aimed and targeted and nut just judged to be on course.

There were two types of torpedo firing: (i) salvo firing where the torpedoes were all fired sequentially at the same direction and (ii) pattern firing where the torpedoes were fired at a determined angular offset. There are also several well known errors; (i) aiming error due to the failure to get to the center of the target and (ii) ballistic error which spreading of the torpedoes from the pattern as they go towards the target.

Simply put if the target is close and if one can get a good fix on the target and if the torpedoes go true and straight in the water then there may be a chance. Otherwise the facts speak differently. Submarines were the most successful with the torpedo, aircraft the second. Surface vessels especially the Destroyer were the least. This is strange since in many ways the Destroyer was designed and intended as a torpedo launching platform.

#### 1.6.4 Communications

Communications of a ship was done in a variety of ways. One of the most developed and used in a battle action at the time of Surigao was the Talk Between Ships ("TBS") radio system. This was a VHF (60-80 MHz) low power system which perforce of its limited power was not readily intercepted, at least that was the idea since it was generally line of sight. This listening in or direction finding were not readily achievable with the use of TBS. In addition to this flags during daylight and high power directional flash lamps at night were also used. The lamp was a small hand held device which used a Morse code for transmission and was highly directional. It could provide long distance communications at 10-30 words per minute and could cover a distance of 10,000 yards or more and would be generally secure of one knew where to send the message.

Other communications related systems were the ships VHF system, the direction finding systems, and the IFF (identity friend or foe) system. These systems were all dependent upon an active radio and antenna environment. IFF was key to many battles but it was almost secondary to the proper management of the CIC, and knowing who is to be where and when.

#### 1.6.5 Control

The control element was the fifth and final element layer of the CCC system. It centered around the ability to communicate between ships in the attack group and to internal manage all of the flow of information and commands to deploy the weapons systems on board.

The radio system was just coming to its own in the War. In WW I there was limited Morse Code links but the radio in that war was secondary to the battle effort. It was for limited reporting and the concept of command, control and communications ("CCC") had not evolved. The CCC idea in World War II had now expanded into
The Combat Information Center on a Destroyer was a small and tightly outfitted room shown in the following Figure. The CIC collected all combat related information from all the sensors and then coordinated that information and directed the overall weapons deployment on a real time basis. The CIC worked hand in hand with the bridge, as a Destroyer went into action, the CIC would coordinate with the other ships in its group by means of ship to ship radio, not breaking radio silence, and using other signalling means and methods such as flags and lights. These inter ship means of communications were very low data rate channels but they had evolved over centuries into effective tactical ship to ship means of coordinating during times of battle. Instead of information overload the systems dealt only with the facts and responses necessary to effectively execute the battle.

The following three Figures depict the CIC as specified in Navy document by Wylie in 1943<sup>15</sup>. The first chart is an overview showing all of the elements of interface in a CIC.

These figures clearly depict the command, control, communications, computation and intelligence functions. The CIC and Wylie's effort to disseminate the concept and operations from the bottom up made for a major change in Naval Warfare. It was appreciated at the destroyer level and amongst the younger officers. The older officers oftentimes dismissed it leading to tragic consequences.



Figure 7 CIC Overall Architecture

The next Figure depicts the CIC as viewed internal to a ship. As expected it was integral. Also its use was evolving. The captain usually was at the bridge, ensuring the security of his ship. The

<sup>&</sup>lt;sup>15</sup> See US Navy, Combat Information Center, 1943.

Executive Officer was at the CIC in communications with the Captain. This became a critical relationship. In reality during a battle all command and control was effected at the CIC NOT the bridge. If the captain was at the bridge attempting to be captain as pre World War II CIC, he would just be a blind boat driver, not the captain of a war ship. The Captain must be hand in glove with the CIC. Destroyers understood this and since Wylie was a destroyer man, he viscerally understood this.



Figure 8 CIC On Ship Operations

The Figure below depicts the relationship between Flag and all the other elements. Flag functions via the CIC and all of his elements. It is highly distributed, it is NOT hierarchical.



#### EXTERIOR INFORMATION FLOW

#### **Figure 9 CIC Flag Operations**

In modern warfare the use of the term, command, control, communications and intelligence (C<sup>3</sup>I) has come to characterize how modern warfare takes into account in an integrated fashion all of the elements of the weapons platform to maximize the potential to achieve the desired goal while minimizing the risk to the humans on board. Such systems require well educated and trained members of the crew, both officers and enlisted men, and it requires the best in management skills to ensure that these activities are carried off without error during times of extreme duress. It is critical to understand this concept and how it was employed in the Destroyer fleet in World War II. It was the first time in history that Naval warfare combined high state of the art technology with well educated and trained crews. And in addition, the crews were all assembled and trained in record times, and had to act in a coordinated fashion not only within their own ships boundaries but also in large fleet actions. It can be seen when looking at the battles that the Grant was involved in that their very survival was a tribute to the system and to the training.

In summary the integrated CIC system of a Destroyer is shown graphically below. There are five layers in this system:

- 1. Sensors: These were the radar, sonar and Directors. These sensor elements detected targets and provided the information as to their range, azimuth, elevation, or bearing and depth.
- 2. Reference: The reference elements or elements were the gyros. In a ship, and in a ship attempting to achieve a hit on a moving target, it is essential to know both where you are and where the target is. The gyro based stable platforms or elements were critical to this mission.
- 3. Computer: The computer was a first. In prior wars at best one may have had ballistic plotting tables, where recalculated settings were used and then the his or miss approach was

employed to zero in on a target. It allowed for evasion and also expended excessive amounts of ammunition. In the Destroyer environment of World War II the first real time computer allowed for real time targeting. The computer used the sensor data and employed the reference planes of the stable elements to calculate the required firing patterns of the guns.

- 4. Weapons: The weapons systems of a Destroyer were capable of dealing with land, air, sea and submarine targets. The computer then directed the guns for land, sea, and air targets. The submerged targets were still handles as somewhat of a hit or miss approach using depth charges. This of course has been eliminated in today's Destroyer fleet. The weapons were the 5" guns, the 40mm and the 20 mm weapons, the torpedoes, and the depth charges. They were used at times as an integrated weapons system, and at times individually. The Destroyer could handle submerged threats, surface threats, land threats as well as air threats, and do so in a simultaneous fashion.
- 5. CIC and Communications: The introduction of the CIC, Combat information Center, was a brilliant move at this time. Apart from the bridge and the control of the ship, the CIC was the heart of the weapons systems. It in many ways became the bridge for the weapons, whereas the classic bridge retained its role over the ship. The two could function almost independently. In aircraft carriers this separation occurred between the aircraft and the carrier itself, as ship.

## 1.7 The War and its Progress

The War by early 1944 when the story of the Grant begins, has been progressing in two fronts; the Arm one and the Navy one. The Navy was island hopping with the objective to grab land and effectively play checkers and eliminate Japanese pieces across the board. The Navy by this time had perfected the amphibious landings and had the Marine Corps as a highly effective and aggressive attack force. The Marines were ruthless in their attack, fast, forceful, and focusing on a ready victory. In contrast the Army war was looking more at land masses.

MacArthur looked for New Guinea, and to the extreme of moving his personal belongings and residence to Hollandia as if he were there to stay. MacArthur was in many ways a travelling emperor. The Marines would move from mud hole to mud hole and MacArthur would move from Presidential Suite to Royal Suite. MacArthur was focused on the Philippines and did whatever he could to achieve that goal.

As Spector states, the strategy differences between Nimitz and MacArthur were difference driven by personalities rather than any grand plan. The Navy wanted to have there territory and the Army theirs<sup>16</sup>. Thus by early 1944 there was progress on both fronts but it was clearly a different approach by both forces. The Army was much more plodding in the deployment of their forces and it is alleged that MacArthur was always concerned about minimizing Army casualties. The Marines were ruthless amphibious attackers. Tarawa was a bloody Marin battle, New Guinea was to be the Army's first major campaign. MacArthur's approach in New Guinea was to

<sup>&</sup>lt;sup>16</sup> See Spector, Eagle against the Sun, p. xiii.

go where the enemy was not and then sweep around. He was an Army strategist at heart. The Marines were all too often a direct assault force, as in Guadalcanal.

Thus our story begins in the middle of the War. Almost two years into the War, the Grant sets to sea, and it will travel for another two years. It will be essential to understand the difference between MacArthur and Nimitz, because each paints a different picture of the War, MacArthur the self promoter par excellence, and Nimitz the strategist and effective user of good men. Where MacArthur had General Sutherland as his Chief of Staff, a Cardinal Richelieu type of character, sinister and calculating, Nimitz had a rotating staff, men who came and then went back to the War. In many ways the tale of the Grant is a tale of floating back and forth between these two men.

Laid down:	20 December 1942			
Launched:	29 May 1943			
Commissioned:	24 November 1943			
Decommissioned:	16 July 1946			
Fate:	Scrapped			
Struck:	14 April 1971			
Displacement:	2050 tons			
Length:	376,5 ft			
Beam:	39,7 ft			
Draft:	13,9 ft			
Propulsion:				
Speed:	35.2 k			
Complement:	329 officers and enlisted			
Armament:	5 - 5", 10 40mm., 7 20mm., 2 dct., 6 dcp., 10 21" tt.			

### 1.9 Battle Stars of the Grant

- 1. Hollandia Operation (Aitape Humbolt Bay Tanahmerah Bay) 21-24 April 1944.
- 2. Asiatic Pacific Raids (Truk, Satawan, Ponape Raid) 29 April to 1 May 1944.
- 3. Marianas Operation (Capture Saipan) 15 June to 29 July 1944.
- 4. Tinian Capture and Occupation 24-29 July 1944.
- 5. Western Carolines Operation ( Capture and Occupation of Southern Palau Islands) 6 September to 14 October 1944.
- 6. Leyte Operation (Leyte Landings) 10 October 29 November 1944.
- 7. Borneo (Brunei) 7-17 June 1944, (Balikpapan Operation) 23 June to 7 July 1944.

#### Other:

Occupation Service Medal 7 September to 15 November 1944.

# 2 COMMISSIONING AND SHAKEDOWN

The Navy is a unique institution. It has a long history and in 1943 it was in the middle of a war, a war which was changing the Navy dramatically. In many ways the Navy was an outgrowth of the British Navy, there were certain trappings which were holdovers from that time, and in many ways it was a unique American institution. One element of that uniqueness was Admiral Ernest King, both Chief of Naval Operations as well as COMINCH, which made him commander in chief of all Naval fleets. King was an abrasive, hard drinking, womanizing, American commoner from Ohio, an old salt type who gave no praise and expected perfection. Captains under him were not to loose a ship and were to always go in harms way; often a difficult task. King also was a remnant of the racist past of the United States maintaining the separate positions of blacks and Philippinos in the navy to stewards and manual laborers.

The War required that the Navy go from some 350,000 officers and men to over 3.5 million is less than a year and a half. This ten fold growth was unprecedented. King oversaw this process in detail. King was born in 1878 and by 1943 was already passed the retirement age for Admirals, then set at sixty four. King was appointed by Roosevelt and managed to survive two Secretary of Navy, Knox and Forrestal, and had a direct access to Roosevelt whenever he so desired. King had two problems to deal with in staffing the Navy; the officer corps and the "enlisted" men. Most of the "enlisted" men were draftees. Thus the challenge was how to get all of these people and keep the Navy what it had been, at least in Kings mind.

Before continuing it is interesting to go back a bit on King's career. King arrived at Annapolis in August 1897 and graduated in the Class of 1901. There were only eighty seven classmates in that entering class, and much fewer graduated. This meant a small number of officers were produced each year, but then the Navy was small. In those days the graduate was a midshipman and did not receive an Ensigns commission until passing tests, that took King, and others, another two years. By 1903 King was an Ensign. Promotion in the Navy at that time was quite slow, if one made Captain by fifty five one was doing well. The Academy taught seamanship, Naval tradition, command, and most importantly following orders. The navy has a phrase, "a place for everything and everything in its place" The Navy is an operations type of organization, it takes something from one place to another and does it repeatedly over and over, the same way with the same result. Thus on a ship there are two key elements which matter; what some one does and who someone reports to. One does what one is supposed to do and you respect the chain of command. Furthermore there is the "book", and everything is done by the book. The book may evolve but it tended to do so slowly. Creativity was not rewarded, and inventiveness was frowned upon. Admirals became Admirals by not making any mistakes and not making any mistakes meant taking no chances. It was like working for the phone company.

King had early sea duty but he was generally a combative and outspoken junior officer. Notwithstanding this he was eventually promoted to Lieutenant and assigned to the Naval Academy in 1906. King became the officer in charge and head of discipline. His commanding officer was Commander Albert W. Grant. He and Grant were like matches and gasoline. Grant wanted to have discipline from his discipline officer but King wanted to be right all the time no matter what. Grant eventually reported him to the head of the Academy. King actually became hostile to Grant as time went by. One could say it bordered on hatred. King was never one for forgetting what he perceived as an attack on him. And Grant had become one of his enemies, albeit a senior officer. This trait was to follow King through his career. One may wonder why Roosevelt made him CNO, with Marshall his counterpart in the Army. If one knows Roosevelt, he was one of the most manipulative human beings ever born, and he managed people by manipulation; King managed by abject terror, both downward and upward.

Grant was born in Maine in 1856 and graduated Annapolis in 1877. He was twenty two years older than King. He had just been promoted to full Commander when he arrived at Annapolis and in charge of the Seamanship courses. King reported to Grant in 1909.

In July 1909 Grant was promoted to Captain. He was fifty three years old, and was on schedule for such a promotion, especially during a time of peace. Grant in World War I assumed command of Battleship Force 1, Atlantic Fleet, with the additional duty of command of Squadron 2 and Division 4. He was promoted to the rank of vice admiral. In December 1918 he took command of the Atlantic Fleet. In the spring of 1919, he became commandant of the Washington Navy Yard and superintendent of the Naval Gun Factory. Grant retired from the Navy in 1920 and died in 1930 at the age seventy three. In those days and even until the beginning of World War II there were only four full admirals, the top of the command structure was quite thin. And full admirals were typically in their sixties and served about two years. Thus if one looked at the Academy graduates as a class of say sixty, then two of the sixty would make full admiral. King would be one of them.

King, as a man in control of everything, undoubtedly had to approve the naming of all ships during his tenure and it is amazing that the Grant was so named, especially for one who King still had a grievance against, at least in his own mind.

The War in the Pacific was complex. It was divide into two almost equal levels of responsibilities, a Navy war and an Army war, except the Army needed the Navy to get it to where it had to go. In addition, the Navy did not need the Army and the Navy used its Marines very effectively. For it was the Marines who went island to island in many cases. The Army was under the control of MacArthur and the Navy under Nimitz. Nimitz reported to King and MacArthur to Marshall, a one time subordinate. However as most people may know, MacArthur reported to no man, he set his course and followed it. As one looks back over the years MacArthur conducted his actions in a manner which almost always was done to minimize the casualties to his men, and the record speaks well of this result. MacArthur was mercurial, was arrogant, but was also a brilliant strategist as well as tactician. He knew the Pacific like not other human. Unlike Eisenhower and the European theatre, MacArthur had spent his life understanding and living in this theatre of war. It was his back yard, he grew up there, as B'rere Rabbit would say to B'rere Fox, "I was born in the Briar patch" so was MacArthur born in the Pacific theatre.

Any new ship will have yet to be fixed parts and pieces, and the new crew must start to act as one. BUPERS, the Bureau of Navy Personnel, assemble the people from what is in the pool,

volunteers, draftees, reserve and regular Navy. It is a mix of all types, electricians, young seventeen year old kids, college grads, lawyers, an Annapolis Grads.

The Navy during the war was staffed by many draftees. These men were listed as USNR, or US Navy Reserves. On the original complement of the DD 649 as it left Charleston there was a crew of 288 of which 63 were USN and 225 were USNR. Even of the regular Navy USN crew, very few were in the Navy prior to the beginning of the War, and even then for just a brief period.

It is also interesting to note than on departure from Charleston, there was a crew of 288 men of which 63 were enlisted and 225 were drafted, or USNR. Of the fatalities in Surigao, 2 were from regular Navy, USN, for a 3.2% fatality, whereas 26 were from the USNR or draftees, for a 10.6% fatality rate. Namely one would be almost four times more likely to be killed if one were drafted as enlisted.

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### 2.1 The Captain

Commander Nisewaner was born in Claremore, Oklahoma on 29 April, 1910. The family moved to Boise, Idaho when Andy was nine months old. He lived on an aunt's farm and his mother worked in Boise.

Two Annapolis men addressed his high school and Nisewaner then wanted to enter the Academy. He applied to Senator Borah but received an appointment to West Point instead. He then decided to enlist in the Navy, so he could attend the Naval Academy Preparatory School (NAPS) in San Diego. He passed that course and entered the Naval Academy in 1928. At the Academy he boxed, played Lacrosse and Football. He completed his studies and was commissioned in the class of 1932.

His first duty was on the light cruiser USS Omaha. He then served aboard the destroyer USS Breese and then was assigned aboard the destroyer USS Gilmer. Then aboard the USS Sirius he was first lieutenant, first division officer and gunnery officer.

Nisewaner then went to the Post Graduate School in Annapolis in 1939. When war broke out in Europe he was assigned to the cruiser USS Astoria. After a year tour of duty there Nisewaner went to Annapolis as first lieutenant of the Athletic Department. In June 1942 Nisewaner was ordered to the USS Butler, which was being built in Philadelphia. He became the executive officer (XO) on the Butler. The Butler was in action on her convoy duty in the Atlantic. After a short tour aboard the Butler he was ordered to be Chief of Staff for Admiral Dashiel Livingston Naderia, who flew his flag from the destroyer USS Nelson and saw action in the North African campaign and in the Sicily campaign. In 1943 Andy was ordered to put the Albert W. Grant in commission. This was his first command



Figure 10 Commander Nisewaner, this picture is taken after he had made Captain

Nisewaner was thirty three year old destroyer captain, most likely one of the youngest in what was becoming a younger Navy. He was now in charge of a Fletcher Class destroyer and had the responsibility of assembling a crew and shaking the ship down so that it could enter the Pacific as a Navy fighting vessel. He had taken up residence in Charleston with his wife and watched the construction on a day by day basis, for this was his ship and he knew he must know it inside and out. This knowledge may very well mean life or death as the ship was to go into harms way.



Figure 11 Commander Grover Higginbotham

Captain Higginbotham was the second Captain, coming aboard in the winter of 1945 at Mare Island.

Higginbotham recalls his childhood:

"I was born 11 January, 1915 in Pleasant View in Amherst County, Virginia, in a small house located on my grandfather's farm. At the time, my father was working the farm. My grandfather, who fought for the Confederacy in the Civil War, died before I was born. My grandmother still lived on the farm. My Dad's two younger brothers and a sister left the farm for other occupations. When I was a couple of years old, my Dad also left the farm to work for the State of Virginia as a maintenance supervisor for road building equipment. My grandmother continued to live on the farm, but the land was leased to a neighboring farmer....."

...... finally the letter came from the Navy Department. The passing score was 2.5 out of a possible 4.0. I received a 2.50 in both math and English...My principal had passed the exam, but the other principal and all other alternates had failed, so I received orders to report to the Naval Academy on 1 July, 1931 for a physical exam.....The physical exam posed another problem. At the time, I only weighed 105 pounds and the minimum weight for admission was 115. In spite of stuffing on bananas and drinking all the water that I could hold, I was only able to tip the scales at 105 lbs. The examining doctor asked me my age, and when I told him I was 16 he wrote down 115 on the chart. So I was in - just by the skin of my teeth.....

The Naval Academy had a somewhat unique system of education in those days. The system depended heavily upon the student educating himself from the books provided to him. We were given study assignments for each class and were required to recite what we had learned at each class, either by a written quiz or blackboard exercises, and we were given a grade for our performance at each class. Once a month we were given an hour's exam in each subject. The exam grade was averaged with the daily grades according to some formula and monthly grades were posted for each of us in each subject together with our class standing in each subject. At the end of the year grades in all subjects were averaged and relative class standings computed. This made for a very competitive environment which was designed to weed out about a fourth of

each class in the first year..... The year wore on until June rolled around and the class of 1932 graduated, and the ordeal of our Plebe year was over. Not that it was so very tough, but it was a nice thing to have behind one.<sup>17</sup>"

"At last the great day arrived, 6 June, 1935, and we graduated with commissions as Ensign, United States Navy. After graduation I went to Poughkeepsie with the crew squad before going on a short vacation at home prior to joining my first ship, the battleship U.S.S. Arizona (BB-39)."

### 2.2 Officers

The officers fell into four groups; the Academy men, the NROTC men, the college crowd (those having gotten rapid officer training) and finally the few "mavericks" who had made it from enlisted to officer. Nisewaner was Academy type, he was supported by an Executive Officer a Lt Cmdr Bland, and he was also and experienced Academy graduate who would soon have his own command, he would be with the grant for but a short while.

Lt Jerry Marsh was the maverick, have been a Chief Fire Control man he worked his way up and now headed the Gunnery Department on board the Grant. Marsh was a salty character who would be well respected by officers and men. He knew the gunnery operations backwards and forward and he was able to get his men, both officers and enlisted, to work as a well oiled team. This team work would become an element in saving the ship.



Commissioning Exercises A. W. GRANT Charleston Navy Yard November 1940

Dr. Mathieu 2nd row left. Crissy just right of "Mike", BB Lyon just right of lecturn, Jerry Marsh, 2nd row between Crissy and Lyon. I'm on the far end front row.

<sup>&</sup>lt;sup>17</sup> It should be noted that the hazing class, that of 1932 was Nisewaner's class!

The NROTC man was Hunt Hamill. Hamill was from Winnetka, Illinois. His father was a prominent psychiatrist and Hamill had attended Harvard. He was Harvard class of 1940 and was the head of the NROTC and also had played football with Jack Kennedy who was of the same class. Hamill joined the Navy full time in 1941 before the War began and was assigned to the destroyer USS Jenkins. The most memorable recollection is when he meets his first Captain, an Annapolis grad who has him enter the ward room and has a 2 ½ inch binder of Navy regulation in front of Hamill. The Captain enters and says:

"Hamill, these are the Navy regs, I hate them and when I get through with you, you will hate them. And Hamill I don't like you. I don't like you for three reasons. First, you are from Harvard. Second you are NROTC. Third, Hamill, I just don't like you!"

Needless to say this was not the best introduction to the Navy one wants to see. The process goes downhill from there until he joins the Grant. Then with Nisewaner and subsequently with Higginbotham he becomes a great officers and a well respected XO.

Hamill, as an NROTC grad had four years of Navy training, he had experience on ships perforce of his summer cruise, but he was distinctly different in that he had a university degree, a university education, a university environment. He was in many ways what the typical Harvard graduate would be in the 1930s, well educated, dedicated to country and family, having a sense of duty, history, and a breath of understanding of the human spirit. Perhaps it was this that made it more difficult to be accepted by the Academy types, who in many ways came from a cloistered and regimented world. However, with the Grant he had found a place where there was teamwork, albeit with the chain of command.



Figure 12 Executive Officer Hunt Hamill

Ed Pfeifer was the V6. That meant he had graduated from college and he went through the ninety day wonder school for officers. In actuality he went and was trained at Notre Dame. He was born in Michigan and lived in Vermont, just outside of Burlington. He graduated from St Michaels College, a small Catholic college in Burlington and he had a degree in history. In early 1943 he enlisted as a V6 candidate and took his training. He then was sent to Newport to be further

trained as a Torpedo Officer. The V6 training gave him the fundamentals of Navy officer knowledge and Newport gave him the fundamentals of managing the torpedo crew.



Figure 13 Ensign Edward Pfeifer, Torpedo Officer



Figure 14 Dr Mathieu

Dr. Mathieu, Lt (jg) was the ships first medical officer. He was killed in the Leyte Action.



Figure 15 BB Lyons



Figure 16 Ensign Chrissy

#### 2.3 The Enlisted Men

The enlisted men came from all over.

There were the old salts, the men who had been in the Navy before the War. This included men such as Walter Gilbert, the Signalman, Zangrelli the Fire Control man, and ....

There were the young kids like Olson, Elkert, Borowkowski, Fuson, .... who were just about eighteen, unmarried and free for the first time.

Then there were the married men with children, they were as old if not older than the officers and had been married and had children. They were in many ways the old men, even older than the old salts who were mostly still single. Some were college graduates, many had some college, and many were skilled in various ways. Whereas the younger men went to be deck crews and seamen, the older men went to be trained as torpedomen, fire control men and the other demanding specialties such as radio and radar.

Finally there were the Chiefs, the true backbone of any ship and the Navy. The Chiefs had years of Navy service, had seen many a Captain and officer, and had trained hundreds if not thousands of seamen, and in some cases may have even served in the first War.

The enlisted men each have a tale to tell. Several of them are presented here and others will walk their way in as the story evolves.



Figure 17 Borowkowski

The there was Borokowski. He was born in Hartford, CT. Also seventeen from rural Connecticut. A trade school student. In those days a trade school taught someone a trade instead of the more classic academic High Schools. Borokowski's trade was electricity, and how to install it in homes and other places. He is eighteen, jus about to finish trade school, but not quite, and he gets drafted. It is 1943. Off he goes to Bainbridge, Maryland. This is his boot camp. Learning how to march, shoot a rifle, swim, and learn the Navy way to pack your sea bag. Each part of your clothing rolled the Navy way, so that when unrolled it is neat and creaseless. Neatness, cleanliness, and being ship shape was the Navy way. After Bainbridge the Navy in its wisdom sees a good electrician and Borokowski goes off the electrician school at Detroit. Then after that he goes to gyro school in San Diego.



Figure 18 Arnold Olson

Arnold Olson grew up in an orphanage in central Pennsylvania. His mother had died when he was young and his father had sent him to a local church orphanage. At the end of his senior year in the orphanage High School, in March of 1943, he get a draft notice. Off he goes to Bainbridge, MD. He turns eighteen at the end of March of 1943 and then enters the Navy, before even finishing High School at the orphanage. He is bright, aggressive, a good worker, and the Navy recognizes this quickly. He then enter Quartermaster school after boot camp. The Quartermaster is a key position on a ship. He stands at the helm with the Captain, manages the overall navigation of the ship, keeps the log, a tireless and essential Navy duty. He must be able to deal with the "adults" the older officers and handle the stress of real time command situations. Olson all of eighteen was seen to have that depth of character. He had that youthful round face with blond hair and a smile which revealed not only a good sense of self confidence but a view of this new world outside of the orphanage which was looking at it as all new and exciting. He was the type of young Quartermaster any Captain would like to have. As the Quartermaster, fresh and new, he also obtained an view of the Captain and other senior officers which no other crew member would, even the Chief Petty Officer, those old salts who filtered their views through years of experience.



Figure 19 Homer Burns (Townsend, TN)

Homer Burns was born in 1918 and was drafted in 1943 while twenty five and married. He was from Townsend, TN, a small town in eastern Tennessee on the western side of the Appalachians. Townsend is not near the ocean, and in those days was not near anything other than a weak radio signal from Knoxville. There are small farms, a stream which floods and at that time not a great deal of transportation unless getting to Knoxville by a long bus ride would count. He went off to boot camp in Norfolk and was then sent to Charleston to meet up with the Grant. At the time he was in Charleston his son was born and he went back while on leave. The only way to get there

was by bus, over the mountains and through *New Found Gap*, in an old bus, to Knoxville and then get a ride down to Townsend. It took him three days but he accomplished it. No sooner there than he had to return on the same bus. Then off to sea.



Figure 20 Toy Fuson

Toy Fuson is from Tennessee, close to Nashville. He had graduated from High School in 1943 and had an appointment to West Point. He got drafted in August of 1943 and was sent to boot camp in Bainbridge, MD. He was bright and hard working and eventually became Store Keeper 2C. For Fuson as one of the younger men his adventure would involve listening and learning from the men on board.



Figure 21 Shelton (Fayetteville, TN)

Shelton was from Fayetteville, TN, just above the Alabama border in south central Tennessee. The area becomes flat, not the hilly eastern part of the state but not yet the flat and humid western part which adjoins the Mississippi. He had graduated in 1938 from High School and joined the Navy. He was regular Navy, and had spent considerable time at sea before the War. From 1939 thru 1940 he was on a Navy oil tanker the USS Rapidan (AO-18) and sailed to Casablanca and Oran. This sailing both before the War and during its early days on tankers presented high levels of risk. Although not a fighting ship the tankers were targets. They carried high test fuel and even a single shell from a surfaced U Boat would mean instant destruction. So Shelton knew very well what this War was about. This time at least he was on a fighting ships which could defend itself.



Figure 22 Sam Carchidi (Brockton, MA)

Sam Carchidi was EM 3C at the time the Grant set to sea. He was from Brockton, Massachusetts. The town is fifty or so miles south of Boston and in the early part of the twentieth century was a manufacturing town. It made shoes, then electronics and always kept its deep ethnic roots, a town with a mix of new Americans and their offspring. He volunteered in 1942 just after High School and delayed his entry until the beginning of the winter since he found that he and his friends could go to boot camp in Ocalaca, Florida. Never having been to Florida, he found this enticing, and besides it beat Great Lakes in January. He then went on to study for an Electricians Mate and found himself at the Grant in November 1943 as EM 3c.



Figure 23 Emmet Crump (Paris, KY)

Crump is from Paris, Kentucky. He had a brother who at 17 was at Pearl Harbor when the Japanese attacked. He decided he would enlist and did do in September 1942. He went to Great Lakes for his boot camp and then onto Pier 92 in New York and reported to DD 341, a 4 stacker going on patrol duty to Iceland. He spent time on patrol in the North Atlantic during the most perilous period of U Boat attacks and then in November 1943 reported to Charleston and the Grant.



Figure 24 Kelly McGinnis (Lynchburg, VA)

McGinnis was born on June 1, 1926 in Lynchburg, VA. He enlisted in the regular Navy on August 10, 1942 at the age of 16 and arrived in Great Lakes, IL on August 11th and was assigned to company 719. His Boot Camp training was cut short due to the shortage of men to man the new ships being built. On September 27th he was given a 7 day leave and orders to report to Boston for duty on the USS Doran, DD634. The Doran left Boston for New York and on to Norfolk, VA. On October 23rd we sailed from Norfolk screening transports for the invasion at Safi, French Morocco, arriving at Safi on November 8th. We assisted the invasion forces in the landings. The Doran also screened transports for the invasion of Scoglitti, Sicily. We arrived Sicily on July 10, 1943. We provided fire support for the landings. This was the last voyage aboard the Duran.

On September 28th, he along with 3 of his shipmates; John C. O'Neil, Jr., Lorenzo Moncevais, and Dorman Hoskinson were transferred to the Albert W. Grant, DD649. As the Grant was not ready we were sent to Norfolk, VA for destroyer training. On November 20th we were ordered to Charleston, SC. We were allowed to board the Grant on November 24th at which time she was put in commission. He was Seamen 1st Class when he boarded and Coxswain when he left the ship. He was a deck hand in the 1st division and Mr. Crissy was his division officer. His watch and battle station was forward on the starboard side. Judson Howard was his Gun Captain.

When the Grant returned to Mare Island for repairs he was transferred on February 15, 1945 to the Naval Air Facility at Litchfield Park, AZ. He was appointed Master of Arms of the base. He remained here until he was honorably discharged at Bainbridge, MD on June 1, 1946 as Boatswain Mate 2nd Class.

He returned to his hometown of Lynchburg, VA. He met his wife Kathleen Cash in the spring of 1947. They were married on November 23, 1947. They raised 3 daughters and 1 son in the Lynchburg area. They have 8 grandchildren and 2 great grandchildren, with another great grandchild on the way. They remained in Amherst County, VA until the summer of 2001 at which time they relocated to Bonita Springs, FL where they currently reside. He was honored in May, 2003 at Disney World, Orlando, FL as the World War II Veteran of the day. He was Grand Marshall of the Disney Parade, along with his family participating and looking on proudly. He also assisted in the lowering of the Flag at the evening ceremony



Figure 25 Bert Farley (Kentucky)

Bert Farley (TM 3C) was from eastern Kentucky, along the West Virginia border south of Wheeling, coal country. Lots of hollows and streams, lots of coal mines and lots of heavy work. He finished High School in 1943 and was immediately drafted. He did his boot camp at Great Lakes and then on to Mare Island for his torpedo school.



Figure 26 Ralph Natali

Ralph Natali was from the Pittsburgh area. He was a fire control man on the Grant.



Wesley Bugge (QM 2C) was from Drake, North Dakota. He entered the Navy Dec 16 1941. He left Duluth, Minn. and on Dec 15, 1941 for Minneapolis, Minn where on the evening of Dec 16, he was sworn into the U.S. Navy. He was then transferred to the Great Lakes Naval Training station and arrived there on Dec 17 and was immediately put thru of process of receiving naval issue. He was then put in Barracks "T" and assigned to company 229. After a week at Camp Barry he was transferred to Camp Bronson. He received his first liberty on Jan 6. On Jan 25 he was transferred to Barracks 304 and on Jan 26 he began Ouarter Master School. On June 5 he left Great Lakes for New York. He arrived at Pier 92 on June 6, 1942. He received his first liberty June 8, 1942 and looked the city over. On July 7, 1942 he reported aboard the U.S.S. Quick (DD 490). On Oct 23 he left for Africa in largest force ever to cross. After a nice trip with a few days rough weather. On the morning of Nov 8 at 4.28 he entered Safi. It was the first battle and very exciting. It lasted until 11.30 then there was a lull in battle. He were off for half hour when the alarm rang for an air attack. He are believed to have knocked one plane out of the air. He then left Safi to attack sub outside which he damaged and run up on the beach. He then returned to Safi for a day and then left for Casa Blanca and partook in sub attack, 19 subs are believed to be in attack on harbor. The ship had fun amongst them dropping depth charges. In late 1943 he "married to the sweetest gal in the world" and left the same day. His new bride came with him as far as Chicago. I reported aboard the USS Quick (DD 490 a Gleaves-class destroyer) and he went up to Casco Bay on maneuvers. On the 19<sup>th</sup> of August he pulled into New York. He was transferred to Norfolk to await the commissioning of the Albert W. Grant. Oct. 24 he left for Charleston Nov 20 and arrived the 21<sup>st</sup>. On the 24<sup>th</sup> the Grant was commissioned. On Dec 27 he left for Bermuda on our shakedown. It was a rough trip. He had a rugged shakedown not only in ship crew also. He had each 1 liberty there in Bermuda. He returned to Charleston on Jan 29, 1944 for our yard period. On the 9<sup>th</sup> of Feb he left for Norfolk. Arrived the February 10 1944. He left Norfolk for San Diego. Feb 19<sup>th</sup> He arrived at Panama and 20<sup>th</sup> went thru the canal.

Feb 27<sup>th</sup> he arrived in San Diego. Visited the Fox Theatre, the nicest I've ever been. S Feb 29<sup>th</sup> left San Diego for Pearl Harbor.



Figure 27 Timothy Williams

Williams was from Virginia, was a GM 3C, and from Matoaca Virginia. He joined the Navy in 1942 and served aboard the USS Ballot. He also served on several other ships in the Atlantic and joined the Grant in Charleston.



Figure 28 Harold "Baldy" Carlson TM 2C, (Worchester MA)

Harold "Baldy" Carlson was born on Sept. 28, 1919 in Worchester, Massachusetts. His father, Erick Levi Carlson, was born in the region of Varmland in Sweden. His mother, Ellen Sophia Malquist, was born in the US, also from Swedish descent. In the early part of the twentieth century, Worchester was a busy and thriving industrial city in central Massachusetts. It was the home to many similar industrious and hardworking immigrants who found their fortunes in this new country in the manufacturing and related businesses in this part of Massachusetts. Baldy had a brother and three sisters, and was one of five children of Erick and Ellen Carlson.

Baldy's father was a frustrated young brakeman on the railroad in Sweden, which was a family tradition, when he decided to test the waters of America and set out to make his claim in US via Ellis Island. His first two jobs in proved disastrous, first, employed by a Pig Slaughter house and second at a Stone Quarry. His disappointment led him to return to his native land, but this

restless young man ventured a second time to the US and this time to Worcester where he became a blacksmith for US Steel until retirement.

It was there that he gained some sense of belonging and met his sweetheart and wife for life, Ellen Malquist. They were married July 26, 1917 and gave birth to 5 children. One of their children, Harold Carlson, was a mischief maker, and his father and he took many instructional drives past the prison with his father pointing a finger and saying, "This is where you will end up if you don't behave." Needless to say this left a lasting impression of Baldy.

He ended up beating those odds, and graduated from Commerce High in Worcester, MA in 1937. He was Captain of the debating team, and a member of the Blackfriar Dramatic Society. It was there that he met Helen Walker, a friend whom he once dated, and who, after high school, she made the trip to Hollywood and signed a contract with Paramount Pictures. Harold moved on to study at Wentworth Institute of Technology in Boston, MA. Wentworth was and remains to this day one of the most respected and competitive technical schools in the United States. During the 30s and 40s, many a Wentworth grad became a master tech at one of the newer high technology firms in the Boston area and during the War the Wentworth grads were the key techs in such places as the MIT Rad Lab, the placed which perfected the radar systems used during the War.

Harold was married to Janice Breatt in December 1942. Bette Jayne was born the next October, 1943. Harold was able to defer the draft for a while due to his employment; however, on June 22, 1943 he was inducted into the Navy, sworn in at Fort Devens in MA. By this time he was both married and a father, he was in many ways typical of that group of new draftees, older, educated, married and heads of families. Devens was located in central Massachusetts and was primarily an Army training base. It was in those days stuck between thousands of acres of central Massachusetts apple field, descendent from the times of Jonny Appleseed, and one of the major crops of the state.

He left his new wife with child. He spent a brief time at Fort Devens until he was transferred to Newport, Rhode Island for boot camp. Newport was at that time a boot camp, an officers training facility and also the headquarters of the Navy's Torpedo activities. Several days before graduation, he was informed of his new daughter's birth, yet devastatingly, a Red Cross letter appeared a few weeks later saying that his wife was ill, and he was allowed to be at her bedside. Janice had contracted Tuberculosis and died in the hospital after giving birth. The road to CA by train was lonely. All his graduating boot camp buddies had graduated and already moved together to CA. Harold had that lonely trip to California, now a widower, a father, and off to War.

He was assigned to Torpedo school in San Diego, perhaps because of the Wentworth training, but this required significant skills understanding gyroscopes, the targeting and control of the torpedoes and other deck weapons such as depth charges, and the overall maintenance and upkeep of these devices. Finishing the school, he was just in time to join the Grant after its passing through the Canal and before it set out on its first Cruise.



Figure 29 Terrence "Terry" McGarty FC 2C (New York City)

Terrence "Terry" McGarty was born in Brooklyn in January of 1919. He was the second oldest of a Irish father and a Dutch/English mother. His father was from Ireland, the family having arrived in New York in the late 1800s. His father's sister was the first to arrive and she had prospered quite well in Brooklyn real estate. When his father decided to come to the State, his sister sent him a second class ticket and he had sailed from Glasgow, where he had been working. When he arrived in New York, she had a car ready to pick him up at the dock and he was sent to work on the following Monday as a policeman in Brooklyn.

McGarty's father was a New York police officer and was re-stationed to Manhattan. He would take the subway from Brooklyn to Manhattan every day and return promptly in the evening. His mother was a Morris, a descendent from one of the old line English families on her father's side and a Van der Voort, one of the oldest families in Brooklyn, having arrived from Amsterdam in 1643 as a Dutch farming family.

After having six children, McGarty's mother died, in the early 1920s, and the seven children were placed by their father in an orphanage, Mt. Loretto, on Staten Island. Three boys and four girls were sent off after a bitter legal battle between the father and the maternal grandmother. The father wanted to control the children as did the grandmother who was quite well off. The courts in New York ruled that the parent has total control over their children and that grandparents had no rights, even if it meant the children be sent to an orphanage rather than being raised in a more edifying environment. It also was a battle over religions, the father being Iris Catholic and the grandmother being Dutch Reformed, and the judge being an Irish Catholic judge, but the ruling was the ruling and off they went.

And there they stayed for over ten years until their father re-married, and his new wife was what could best be described as a true shrew. The children entered the local Catholic schools and young McGarty graduated from Saint Peter's High School in 1937. He had a scholarship for Manhattan College but being the middle of the depression and now having no place to live he needed a job instead. His fist job was as a Spanish translator in an import/export firm. He would spend his days translating from and to Spanish bills of lading and other documents for the firm.

At night he took the International Correspondence School, ICS, course on electricity. He studied this for a couple of years and by 1939 he landed a job as an electrician at the Bethlehem Steel factory on Staten Island, they were tooling up to build Destroyers for the war.

He worked there for four years. He got married in 1941 to a Dorothy Maynard, the daughter of the Harbor Master of New York Harbor, and who mother, Hattie Kruger, was the former head of the Socialist Party in New York, and also the first woman in New York to run for US Senate, albeit on the Socialist party ticket. Ironically Dorothy's father was a Dutch Reformed Protestant and Hattie was an avowed atheist, making for rather interesting Sunday dinner conversations.

In 1943 McGarty's had their first child, a boy, and the War was now drafting even husbands and fathers. He found himself at the Draft review Board in the Whitehall Recruiting Station, in downtown Manhattan for his final draft physical and selection to a service branch. His two younger brothers had already been drafted, both were in the Army, one in the Pacific and the other in the Army Air Corps. The brother in the Pacific would win the Distinguished Service Cross at Okinawa in 1945 as his uncle had won the DSC in France in 1918, both Sergeants and both in the most heroic of circumstances.

At Whitehall he completed his physical along with a line of hundreds of other lean and lanky naked young men, having this checked and that, depositing urine in cups with dozens of men waiting in line, walking with some small remnants of clothing but butt naked, and then it came to the selection process. There were Army, Navy, Marine selectors, to look at these men and to determine which service wanted which men. The Army really wanted the youngest, they would be more fearless, the Marines wanted volunteers if they could get them, and the Navy wanted skills. The Navy selector, a CPO, looked at young McGarty's record, scores, and saw electrician. Before any one else could speak he said: "McGarty, you're Navy now, go left, down the hall and you will be processed. Welcome aboard sailor. Next" That was the first CPO that McGarty would meet and it would also be the first command he was to get in the Navy.

McGarty returned home to his wife, who was terrified beyond belief, although she was terrified about everything including the rising of the sun in the morning, and she was now really terrified, since she was due any day and he was now off to War. Her parents had said she could move in with them and that there would be no serious financial burden. To McGarty he wondered what was the greater threat, fighting the Japs or leaving his son with "that socialist-atheist!". But in mid 1943 McGarty goes off to boot camp at Great Lakes, set to become a firecontrolman, whatever that was, he had thought they would make him an electrician, he was never interested in being a fire fighter. So off he went, new father and new Navy recruit. He thought to himself "at least in the Navy I can get a clean bed and a bath every night". He would soon find out that wishes do not always come true, at least as we may have thought.



Figure 30 Tom McIntruff

Tom McIntruff was from Tennessee and a close friend of Homer Burns. Tom was killed at Leyte. He and Homer would spend many hours enjoying the time at Pearl and recorded their songs which have been digitized for posterity. So Tom and Homer are know to all as the "Tennessee Sailors".....heard on Knoxville's country music station...

Armand Caouette was 2nd Class Torpedoman Petty Officer from Winchendon MA and was killed at Leyte.



Figure 31 Chief Roy Williams Jones

Chief boatswain mate Roy William Jones was born in 1912 in Server County, Tenn. near the Smokey Mountains he grew on his fathers farm working the land with his family behind a mule and plow. Another of his chores was milking the cows.

He would get up early in the mornings in the harsh winters and hot summers to take care of his jobs and then walk to a one room school with grades one through twelve. He was one of eight children and he was especially close to his grand father, Henry. His Grandfather was a tall slender man with a mustache that he was proud of. It stuck out on each side of his face. One summer day Roy was sitting with his grand father on the porch talking and just watching the mules graze in the front of the house they noticed a bumble bee landed on the mules rump and the mule swatted the bee with it's tail.

He let out gas and a beller all the way down the hill. They laugh so hard it just about hurt. That was the highlight of the day. When he was about twelve to fourteen his family sold the farm and he moved to Bumble Bee town which was later taken in by Knoxville, Tenn. He remembered seeing signs that said go west young man go west. He dreamed of being a cowboy and the adventure of being on the open range. He never made it to the open range but he did find his adventure and it was further west than he would ever imagine. When he went to his Uncle Charley Russel's house his uncle had a chest with his old army uniform and two pearl handled pistols. Yes he was one of Teddy Roosevelt's Rough Riders.

This was very impressive to him as he was showing him his war relics. The Chief all his life loved to read he would read anything he could get his hands on. When he was young he loved westerns. He got his mom to sew big buttons on his shirt so that he could look as close to a cowboy as possible. At age sixteen in 1928 he worked in a pipe making plant in Knoxville, sun up to sun down. Around this time some of his friends joined the military. When they came home in uniform they seemed to attract the girls. At sixteen he got his mother to sign a work permit stating that he was seventeen and he was on his was to the recruiter's office.

When he signed up for the navy his hands were so warn from work, they could not get finger prints, so he had to quit work and take it easy for a while and go back to be reprinted. So off to boot camp he went. When he came back home he walked around to his Uncle Charley Russel's house, and as he walked up his uncle was sitting on the porch and he said talking through his nose with a slow southern draw hey Roy I heard you joined the army as he got closer he told him that he joined the navy. Charley let him know that it was OK and that he was proud of him. The first ship he was assigned to was the Battle ship Oklahoma it was in the winter after a snow.

The men were marched out to the ship one of the sailors said where is the ship and the soil or that marched them out said you're standing on it you dam fool. The Oklahoma was not fitted with her big guns but with a blanket of snow it looked like part of the dock. During his stay on the Oklahoma he learned to be a loader. During target competition against other battle ships she won the E Award for accuracy and firing speed. The men were loading the gun so fast that they could see red embers dancing in the chamber while pushing another projectile and sacks of powder. At this time in his life he was thin enough to fit in the Oklahoma's sixteen inch guns and did so while cleaning the guns. On the Oklahoma they sailed to France.

The sailors went on liberty. At that time the sailors had the name of the ship Oklahoma on their caps. A large group of them were in a French bar drinking with the French men and women. All of a sudden a fight broke out it may have been over a French woman but never the less it caused a running battle all the way back to the ship. The sailors were out numbered and were getting beat pretty bad. All the French men were looking for any sailor with the Oklahoma on his cap and they would go after him. This caused some minor diplomatic problems at this time. After the Oklahoma he was assigned to the John D. Erickson 440. The John D. Erickson 440 helped to convoyed supplies threw the Atlantic to friendly nations before we entered the war. In 1934-1936 he was assigned to the Asiatic Fleet aboard the U.S.S. gun boat Tulsa.

He had been trained in navigation. He learned to navigate the rivers in China. He once took a motor launch of officers on a duck hunt down the Yangtze River there were so many of these small ducks they darkened the sky. Needless to say they had duck dinner that night. He noted that the tides dropped several feet on the Yangtze River, this could strand your boat. So he left a man on the launch to let out or take in the rope while they were hunting. The sailors in China had a nick name for a barge that the Chinese took up and down the water ways, they called it a honey barge. It was loaded with human waste that they carried to their rice patties for fertilizer. The sailors could smell it coming down the river for miles.

While on liberty the sailors visited local bars. While at old Shanghai on liberty he went to some of these bars with a buddy, they went every where by Rickshaw. By the time they were ready to go back to the gun boat they were plastered. So being drunk as they were they got onto a rickshaw and kept telling the Cooley to go faster laughing like crazy. As they went over one of the Soochow creek bridges know as Suzhow creek now the Cooley was going so fast the front of the rickshaw was coming up and the Cooley had to skip a foot at a time. Unknowing they crossed the military line on to the Japanese side. At this time we were at peace with Japan. This was the International settlement (France, England USA, Japan). The Rickshaw crashed and they were picked up by the Japanese by Gun point and taken in to custody.

Later they were turned over to the American side and because they didn't know where they were and were so intoxicated at the time they were let off with KP and paying the Cooley about double for his rickshaw. In china he served with old navy sailors whom taught him about rigging sails. The Tulsa used steam and sails. Men such as Hank Watson who lived most of his life in the navy. Hank was a ship pilot who could dock a ship as if it were a motor launch. Another older friend Bull Malvacenie was a tough sailor his nick name was Bull due his fighting style. In a fight he would go in leading with both fist swinging and could deliver a knock out with ether hand.

The navy put on smokers from time to time the men fought for navy champion ships. Roy liked Bull because he was a good friend and you could count on him. These men were the old salts. Their home was the ocean. Their saying was if you couldn't beat ten chinamen your not an American sailor. After the Tulsa he was assigned to the U.S.S. Henderson. The chief said that it was a man of war. On the Henderson they were heading back to china. The Japanese were getting more aggressive at this time around 1937. The Henderson entered Chinese waters and were approached by a Japanese ship that demanded to board her but the captain refused so the Japs fired a salvo across their bow to stop them. Then the Captain sounded battle stations and trained his guns on the Japs and told them with a bullhorn that you will not board us we are a Man of war. they backed the Japs Down that day. The Chief said it made him proud to be an American sailor. One evening Bull and the Chief were bar hopping in China looking for some action. they sat down at a table to have a few drinks at a gun boater hot spot. About that time a tall big red headed gun boat sailor walked in the bar drunk and mean.

He started going from table to table saying this is my chair the man said you can have it. Then the monster of a man threw it and he would go to another table each time and once threw one in the Chinese bar tenders mirror. Jones said to Bull do you want him or do you want me to take him. Bull said who's chair that he grabs can take him. They knew he was coming their way and Roy was back to him so he slowly took his belt off and wrapped it around his fist.

The man came up behind Jones and put his hands on the back of his chair and said this is my chair. Jones was already poised with his weight on his feet, he said you can have it and as the big man snatched it from under him The 5'7" Jones sprung up with a hard fast blow to the mans jaw and knocked the man down. The man was laying on the floor and said who hit me who hit me. Jones grabbed the man by the collar before the man could get up and get to him and said I did do you want some more. The man said that's all I want to know that's all I want to know. Then they sat back down and the bar tender was grateful for him stopping the man from wrecking his bar. He gave them free drinks but he was so shook up they had to go. The chief said if you go to a Chinese Barber shop do not go to sleep while getting your hair cut because it was normal practice to shave the eye browse. This happened to one of his Buddy's and he was madder than a hornet and tried to go on the Barber but his ship mates would not let him. He also said look out for the chinamen with a sock and a bar of soap in it.

They used for a weapon he had a friend that was asleep and was hit in the mouth with one. It knocked his teeth out and the chinaman stole his shoes. When Pearl harbor was attacked the chief was in New York city when he heard the news. A few days later in December he married his fiancé Elizabeth parker from gates co. n.c. He met her in Norfolk V.A. while she was visiting relatives. The Chiefs next assignment was on The U.S.S. Albert W. Grant.



Figure 32 Raphael Del Toro



Figure 33 Anthony Adornato

Anthony Phillip Adornato (EM1) was born on July 4, 1921, in Susquehanna, a small rural town in the northeastern part of Pennsylvania. His parents, Carmelo (or Teddy, as he was known to his close friends and family) and Marina Adornato emigrated from Italy in the early 1900s. Teddy worked for the Erie Railroad. His interests were broad and varied, but one in particular to which he devoted much of his time was music. He played in the Erie Railroad band as a clarinetist and traveled to numerous venues in the Pennsylvania and New York state areas. Marina was a housewife and spent her days raising five children, of which Anthony was the eldest. In 1932, when Anthony was eleven years-old, his father passed away from acute appendicitis. As the eldest male child, this left Anthony with the sole responsibility of supporting his family. He left elementary school to work on the same railroad that employed his father. At this time, the country was in the throes of the Great Depression, needless to say Anthony's wages were a pittance, nearly a dollar a day. In a few years, Anthony moved to Port Jervis, NY to live with his uncle and work at a shoe factory, all the time sending money to his family. His employment with the shoe factory was short-lived as Anthony moved to Newark, NJ to pursue a job as a machinist at Mrs. Wagner's Pie, Co. During his tenure with this company, Anthony learned the trade and skills that enabled him to enlist in the United States Navy and was trained to be an electrician on his assigned ship, the USS Grant. Anthony served for four years in the United States Navy and at the impressive age of 86 still regales over the experiences he shared with his shipmates.

### 2.4 Training and Boot Camp

The enlisted men went through one or two steps of training. First was boot camp and then through a specialty school depending on how boot camp progressed. Carlson details his experience at boot camp which gives a typical view of what the men went through as part of their Navy training<sup>18</sup>:

<sup>&</sup>lt;sup>18</sup> See Carlson Diary.

"So, in June, 1942, I left Worcester by bus and I was taken to Fort Devens to be inducted into the service. At that time, I had a 1934 Chevrolet 2-door auto with a rumble seat. I eventually sold it to my uncle for 50 dollars.

While at Fort Devens we were I was sworn in. After being fully examined, I had a choice to either choose the Army, Navy or Marines. I chose U.S. Navy. I don't know how long I was at Devens, but finally we sailors must have been taken by bus to Newport, RI.

While there, called "boot camp" we had numerous injections and were actually quarantined for I guess 11 or 12 weeks. During "boots" I'll try to list the different things that occurred:

1) My company number was called Company #128. (Photos at home). (We had an excellent company commander sailor who trained us.)

2) I've forgotten whether or not we had bunk beds or hammocks.

3) We were issued all sorts of clothing: sailor bats, black socks, black shoes, white uniforms, blue uniforms, skivvies (under shorts), jerseys, navy tie, navy bag, boots (laced leggings). All this stuff had to be stenciled with our names and Co. # 128. We also bad practically all our hair shaved off. We were called skinheads.

4) Every so often they had Captain's Inspection in the gym and everything had to be laid out Navy style.

5) The reason for stenciling is we were fortunate to have laundry service and in this way you would get our own clothes back.

6) Every morning about 6:00 A.M. we had to quickly get dressed and line up outside the barracks in order for muster. After muster we had to run for 15 minutes around the grounds. After this was finished, we returned to the barracks and showered. The next deal was a hearty breakfast.

7) 1 don't remember when, but several times during the day we also had physical exercises.

8) Everybody had to pass a swim test and anyone who failed, they put them in some other branch of service.

9) Every so often we had classes for identifying enemy aircraft and also friendly aircraft. I never was too good at it. I was glad when I got aboard a ship. They had radar .

10) We also bad to memorize and do the Navy flags because they represented the alphabet from A to Z.

11) I think it was either on Saturdays or Sundays, all the boot camp companies had to have the Captain's Inspection by marching with a rifle on the front lawn area of the Captain's residence on the Island. I remember his name as Captain MacGruder. The U.S. Navy furnished band music for

us to be marching to and some officers would come by and ask to inspect our rifles. It was so hot and standing at attention so long that very often quite a few sailors would faint to the ground and no one would bother to bring them back on their feet until we started marching again. This was called Goat Island. The best music to march to was "Stars and Stripes Forever" by John Philip Souza.

12) I vaguely remember a small "obstacle course."

13) Many times during the day we had to learn how to march correctly and how to handle the order points for parading different positions on handling a rifle.

14) I believe we went to firing range somewhere for a few days to learn the correct way to handle a rifle and shoot a gun.

15) Sometime, while there, we had aptitude tests so they could find out where they thought you were fitted for .

16) I should mention here that if you ever cross the bridge from Jamestown to Newport, you can always see Goat Island on your left just before Newport, and you'll also see the Captain's quarters which is now called the War College Building and just in front of his house it was where we had to march for Captain's Inspection.... I attended Torpedo School."

# 2.5 The Ship Organization

The initial crew consisted of 288 men and 18 officers. The crew consisted of most of the elements for a fully deployed destroyer. To understand how the men on the ship interact it is important to understand the ships organization and command structure. To the men at that time this may very well have been the farthest thing from their minds, it is clear in talking with them that it is now. However it is critical to understand the structure since it defines the interactions and defines the relationships between the men. There were of course other factors but the Navy and its way of doing things dictate so much of the form.

On a Navy ship the structure of command is divided into Departments and then Divisions. Departments and Divisions are headed by officers and the Department officers report to the Ex-O and the Division officers report to the Department officers. Also there is frequently a Chief Petty Officer for each Division. The major Departments on a destroyer are<sup>i</sup>:

Executive: This generally includes the captain and the executive officer, and it may include a master-at-arms if such was available. However in the case of the Grant this was not the case. The Ex-O was the equivalent of what in the business world we would call the Chief Operating Officer, he was the eyes and ears of the Captain and his right hand in ensuring the proper functioning of the ship.

Navigation: This includes the Quartermasters and navigation officer which is responsible for the ship steering and its overall navigation. There was a CPO Quartermaster in this Department as well as two officers.

Gunnery: This includes all the ships weaponry and its control, thus encompassing the torpedoes, guns, fire control, sonar, and radar. There may be special Divisions for Fire Control, Torpedoes and Radar. There was a CPO for Torpedo and no other CPOs as of the initial complement. Both guns and fire control had experienced senior petty officers.

Hull : The Hull Department was responsible for the entire ship structure, its maintenance, repair, cleaning, painting, rigging. There was a CPO Boatswain. This is also the position of First Lieutenant and also Damage Control. This position was responsible for all the management of the ship as a vessel.

Communications: This was radio and other signalling such as flags and lights. At this time flags and light signal were still key elements in communications. Communications also included the Yeoman who were responsible for all record keeping and written communications on the ship. There was a CPO Yeoman and a CPO Radio. There generally was a Comm Officer and a junior officer.

Engineering: This includes all of the engines and boilers and support to them. Thus this includes all machinists and firemen (who maintained the boilers), water tenders electricians, and boilermakers. There were 3 CPO MM for the machines and Chief Watertender. There was also a Chief Electrician. There was a Lieutenant Commander as head of engineering and two junior officers.

Medical: This was the doctor and pharmacist mates. There was a Chief Pharmacist. In addition there was a physician on board.

Supply: This Department took care of the ships stores and other related matters. It included storekeepers, cooks, bakers, stewards, and the like. There was one supply officer, generally a junior officer.

There were in total 11 Chief Petty Officers, three of whom were MM (Machinists) in charge of the two engine rooms and two boilers. The Ex O would generally direct the six major Department heads, the Medical being separate. There may have been up to twelve Divisions in the Eight Departments. For example the forward and aft engine and boilers may have been separate Divisions under the command of separate junior officers.

Simply put, there were a few key functions on a ship; sailing the ship, operating the engines, guns and weapons, maintaining the ship's structure, and communications. Within those functions there were specific tasks and each man was trained for those tasks. There was little if any cross training, a machinist was not even trained as a fireman, they never even worked in the same room. Fire controlmen were not cross trained as gunners, and torpedomen just stayed with the torpedo. The rule of a place for everything and everything in its place was followed. Only officers if in the Navy for a while may have seen cross skills as officers, never really being

trained in the actual execution of the skill. The engineering officer may have no detailed knowledge of the boiler or the engine. He commanded the team. Frequently the knowledge stopped at the Chief level.

How were these men selected and why did men get assigned to different rates and positions? To some degree there was a randomness element but frequently the men had some background in the areas. For example if one had an amateur radio license and had knowledge of Morse code and radios then most likely one would end up as a radio man on board the ship. It would be a great deal easier to deal with the code if one already knew it well enough to pass the FCC testing for a license. If one were an electrician then becoming an electrician or firecontrolman was a reasonable choice. If one had mechanical expertise then machinist was a good match.

Youth, typically fresh out of High School warranted seaman status in many cases.

The following Table is a summary of the crew distribution on the Grant at the time it set to sea in November 1944. It took on more crew when it reached Californian and from time to time as it came back to port. The Navy was always changing crews and officers. This was part of cross training and moving good mean ahead and less than good men aside.

Rate <sup>19</sup>	Description	Details	Number	Percent	Department
Seaman					
		Know naval drill duties knots steering			
		and signaling. Stand watch and			
		gunnery duties.	128	44.44%	Hull
		Fit pipes, make repairs in boilers.			
		Know construction of marine boilers			
B	Boilermaker	and fireroom safety precautions.	1	0.35%	Engineering
Bkr	Baker		1	0.35%	Supply
BM					
00					
> 6					
		Work with canvas and hoisting with			
		and anchor chain Handle power and			
	Boatswain	sail boats Steer ship and chart courses			
	Mate	Direct salvage.	2	0.69%	Hull
СК					
120					
X					
SO					
	Cook		5	1.74%	Supply
		Use hand and power tools. Take charge			
		of ship ventilation, painting, watertight			
	Carpenters	control, drainage. Understand shoring			
CM	Mate	and drydocking.	2	0.69%	Hull
COX					
> 4					
A.C.					
The second					
(SX8)					
		Work with canvas and handle boots			
	Coxswain	Know signaling.	3	1.04%	Gunnery

<sup>&</sup>lt;sup>19</sup> See <u>http://abbot.us/DD629/ratings/</u>
Rate <sup>19</sup>	Description	Details	Number	Percent	Department
EM					
Del		Use electrical tools and repair electrical			
		equipment. Charge storage batteries.			
		gyrocompass and in main control room			
		of electrically driven ships. Repair			
		telephone circuits. Apply first aid in			
	Electrician	case of electrical shock.	9	3.13%	Engineering
F					
13					
XT					
(-2)					
		Fire and tend boilers. Operate, adjust	25	10 1 50 (	<b>.</b>
EC	Fireman	and repair pumps.	35	12.15%	Engineering
гC					
34					
T		Stow, inspect and repair fire control			
NA.		instruments. Take charge of fire control			
	Eine Control	equipment. Know electricity - A.C. and	0	2 1 2 0 /	C
GM	Fire Control	D.C. Man fire control stations.	9	3.13%	Gunnery
Ulvi					
1					
AKE					
X					
		Take charge of gun and crew.			
		Handle ammunition Handle mines and			
	Gunner	depth charges.	12	4.17%	Gunnery

Rate <sup>19</sup>	Description	Details	Number	Percent	Department
М					
1					
¥					
		Make plans, time and cost estimates.			
		Work in copper and brass. Temper			
	Metalsmith	watertightness.	1	0.35%	Hull
MM		Operate main and auxiliary engines.			
		Adjust, repair, and overhaul engines.			
		Be familiar with ship's drainage systems distilling plants evaporators			
_ ● _	Machinist	and pumps.	10	3.47%	Engineering
MoM					
		Operate machine tools. Operate and			
(7)		maintain internal combustion engines			
	Matan	and engine auxiliaries. Knowledge of			
	Machinist	with electrical apparatus.	4	1.39%	Engineering
Ph					<u> </u>
V					
		Take charge of sick bay. Do minor			
	Dharmiaist	surgery and administer simple	2	0.60%	Madiaal
QM	Tharmietst	inedicines.	2	0.0970	Wieulcai
_					
XX					
<b>XX</b>					
•					
3.4					
		Stear ship and take soundings. Use			
<b>送</b>		range finder. Plot bearings. Know			
		signal control and navigation. Send and			
	Quatermaster	receive International Code by blinker,	3	1.04%	Navigation
RM	Quatermaster	searchinght and semaphore.	5	1.04/0	inavigation
W					
	D 1	Stand radar watch and operate radar	0	0.700/	C
	Kadar	equipment.	8	2.78%	Gunnery

Rate <sup>19</sup>	Description	Details	Number	Percent	Department
RT					
1th					
A North					
N. A.					
ALC IN					
	Radio				
	Technician	Maintain radio equipment.	2	0.69%	Communications
50	Caal		2	1.040/	C
SC SE	Соок		3	1.04%	Supply
51					
24					
*					
(A)		Use hand and machine tools for steel			
		metal work. Bend, repair and fit pipes.			
		Operate fire extinguishers and rescue		0.050/	TT 11
OT.	Shipfitter	breathing apparatus.	I	0.35%	Hull
51					
20					
	Storekeeper			0.00%	
SK	Storeneeper			0.0070	
20					
$\omega$					
•••					
20					
		Take charge of ship's storeroom. Issue			
	Storekeeper	and account for stock and clothing.	4	1.39%	Supply

Rate <sup>19</sup>	Description	Details	Number	Percent	Department
SM					
<b></b>					
		Stand signal watch on bridge Identify			
		flags. Use blinker, searchlight and			
A×6		semaphore. Use range finder,			
	Signalman	searchlights, signal apparatus.	4	1.39%	Communications
SoM					
-					
.0.					
- 2 2					
200					
$\sim$					
V	Sonar	Operate special sound equipment.	7	2.43%	Gunnery
	Steward,				
StM	Officers		3	1.04%	Supply
TM					
2-1					
Y		Lubricate assemble shares and fire			
-		torpedoes. Lay mines and dron depth			
	Torpedo	charges.	9	3.13%	Gunnerv
WT				2.20/0	
3.4					
(T)					
	Watar	Take charge of fireroom when under			
	Tender	boiler system	6	2.08%	Engineering

Rate <sup>19</sup>	Description	Details	Number	Percent	Department
Y X					
X	Yoeman	Take charge of ship's office. Take dictation, write Navy letters. Prepare reports and keep personnel records.	3	1.04%	Communications
СРО	Chief Petty Officers		11	3.82%	

The Navy had developed a training system which took each of the specialties, created a school, created training materials, and managed to staff them to handle the millions of new recruits. One is amazed at the scale of this issue. This is not the Army, training troops on using a rifle or machine gun. This is training to use early and complicate computers to train on tracking aircraft, training of using, modifying and maintaining gyroscopes, maintaining aircraft, maintaining high pressure steam engines at sea, operating sonar and radar, operating complex netted radio networks, and doing all of this with at best a high school graduate in less than several months. These men were not computer literate, in fact no one was at the time. They were taking radar units from the research labs at MIT and in months putting them into battle operations by the thousands, and having their lives depend upon it. The war was started and over during one presidential term. Vietnam and Iraq lasted two or more!

Not only did these enlisted men learn the new techniques and have their lives depend upon it they also managed to fit into the system as defined by the Navy. Each trained seaman managed to connect like a well oiled cog into the next, the collection of them becoming a well working ship. No twenty first century corporation could near claim this triumph. Politics was limited to Admirals and Generals; seamen and junior officers were apolitical, focused on their job, survival, and a safe return home.

# 2.6 *Commissioning, Shakedown and to the Pacific*

Charleston harbor in November is clear and cool, but it is working at a feverish pace. The Navy Yard located in North Charleston has been outfitting ships day and night to meet the demands of the War, more ships, more men, more places. Located on the Cooper River, the shipyard was founded in 1901 and had become one of the Navy's main ports for building destroyers for the War. The Cooper River is lined with dry docks, covered with ship fitters and craftsmen, assembling rows upon rows of destroyers. The ship is commissioned on 24 November 1943.



Figure 34 USS Albert W Grant Commissioning

The Navy commissioning ceremony is filled with tradition. However during this period of the War the rate of new ships being commissioned had been accelerated dramatically. Notwithstanding this speed there traditions were followed.



Figure 35 Captain Nisewaner at USS Albert W Grant Commissioning

On 24 November, 1943, the destroyer Albert W. Grant is commissioned as DD 649, a Fletcher Class Destroyer destined for the Pacific. She is about 377 feet long, slightly longer than a football field, and has five 5" guns, ten 40 mm canons, seven 20 mm canons, and can deploy torpedoes and depth charges. Her deck is flat, from stem to stern, one can run from one end to

the other and there is no need for climbing or descending any ladders, there is nothing to slow you down, this is a first for a destroyer.

The ship has two engine rooms, fore and aft, and two stacks slightly bent, one on top of each of the engine rooms. She is sleek, strong in speed, but light in protection against enemy shells. She was designed to attack, not defend. She is the total opposite of a battleship.

The destroyer is one of the new Fletcher Class ships. She has five 5" guns, used for shelling and attack. She has two torpedo mounts mid ships with five torpedo tubes each, the torpedo is her most deadly weapon, if it works. She is also equipped with the latest radar as well as a small room behind the bridge which had just been approved called the Combat Information Center, CIC. This room had been developed by Commander Wylie, a classmate of Nisewaner's from the class of 32' and would make a dramatic change in the way ships utilized and war would be fought. It was the command, control, communications, computing, and intelligence center, or as is known today the C<sup>4</sup>I center.



Figure 36 Albert W. Grant Leave Charleston, SC

But first, the shakedown cruise, taking the ship from its berth out into the Atlantic to check for leaks, operational defects, and any other problem which may in any way detract from its ability to be a key element in the battle against the Japanese Imperial fleet.

At the helm is Commander Andy Nisewaner, an Oklahoma farm boy, a graduate of Annapolis and a veteran of the war in the Atlantic. This is his first command. He is in the captain's position as the destroyer slid under the bridge on the outer side of the Charlston harbor, a clear day, a smooth sea. He will take the Albert W. Grant, never called the Grant since there was already a ship called that, taking the Albert W Grant out into the Atlantic, out to Bermuda and then return, testing all of the vital parts of the destroyer, in what could be considered somewhat benign conditions.

However, Nisewaner knows quite well that just ten miles off the coast at Charlston is a swarm of German U boats, the Navy is finding and sinking them on a continuing basis. So Nisewaner is as cautious on this cruise as he would be in any battle station ready situation. He has a smaller crew for shakedown, but he has selected the best men he can, they will be with him when he takes this ship into the Pacific.

## 2.7 Shakedown Cruise

On board the ship, especially during shakedown, the men apply themselves to the daily routine. This is a new crew, some old hands and many new men. They have to learn to work together. For all of them this is the first time on a Fletcher Class destroyer, the first time with this Captain, and the first time to war. The ship is state of the art, with the newest technologies; radar, radio, fire control, and even the boilers and turbines are the newest of the new. The ship can cruise at almost 40 knots, like a large speedboat, and can fire its 5" guns at the same time.

Life on the ship is controlled by the watches. There were generally seven such watches:

0000-0400 Midwatch 0400-0800 Morning Watch 0800-1200 Forenoon Watch 1200-1600 Afternoon Watch 1600-1800 First Dogwatch 1800-2000 Second Dogwatch 2000-2400 Evening Watch

The cycle of life onboard a ship is the cycle of the watches. During each watch a Watch Section, the group of the crew standing watch for that specific period, works together to perform whatever function is required.

The men would look at the posted ship's bills, the list containing what they are to do where and where. The large piece of paper prepared daily would list the watch, quarter and station, or the classic who, what, when and where of each man on each watch on each day. There was no ambiguity aboard a ship like the Grant.

With the Grant underway, each man on this shakedown would stand 6 to 8 hours of watch a day. There were four major watches: Bridge and Deck Watch, Engineering Watch, Communications Watch and what we now call the CIC Watch. As we will have seen over and over again the CIC watch was there except the men had not yet fully understood its import. They would at Leyte.

#### 2.7.1 Bridge and Deck Watch

The Officer of the Deck, OOD, was in charge of the Bridge, the focal point for the ship. He is in charge of the ship for the Captain, he issues all the commands for the men on the bridge and elsewhere to execute so that the ship goes where it is supposed to and when it is supposed and not go where it is not to go, like aground. The OOD position would change from watch to watch. It would give the Officers an opportunity to know the ship, to become true sailors. All ships officers except the captain and the XO are subordinate to the OOD. The OOD must know and understand the navigational position of the ship at all times. As one officer leaves as OOD another moves in, it is a seamless process, for each and every watch, for each and every day. There is no room for slip up. In some cases there may be also a Junior OOD, the JOOD, which may have been viewed as a training position. On the Grant, with a complement of fifteen

officers, including the Captain, and four major watches, this mean four on and four off watch schedules, and one officer per watch. There was little training time.

There would be several enlisted men in this watch. The Boatswains mate was the principal one. He was responsible for making all the announcements at the orders of the OOD and he is also a qualified helmsman, namely he can maneuver the ship. The Boatswain is critical since he has the experience and competence to bring a ship in and out of port and follow in whatever maneuver he is asked to participate in. However the boatswain only follows the OOD, thus the OOD had better know what to ask for, it ultimately is in his hands.

The Quartermaster is assigned form the navigation department. The quartermaster keeps the log of the ship. The log is the legal record of what the ship did and when. We will see how important this is for the Grant latter on as well as for the other ships we encounter on the journey of the Grant.

The Helmsman is typically a seaman from the deck or weapons department. He steers the ship as ordered by the officer who has the conn, the OOD.

There may be others, messengers, and phone talkers, and lookouts. The Bridge is watching out for everything. Men may come and go, but the OOD and the crew must stand fast, hour upon hour. On the shakedown, the hours pass by, as they sail out to Bermuda, several hundred miles, doing 25 knots a little more than a day of sailing, and several watches. Then into a foreign harbor, and buoys and channel markers, a nightmare for anyone not experienced.

The OOD, JOOD, and the other enlisted men of about five to six, and three watches per day per group may mean a total of six officers and eighteen men on this watch.

# 2.7.2 Engineering Watch

Engineering assures that the ships propulsion system (boilers and turbines), electrical power, fresh water, and assures the prevention of flooding, fire, and associated emergencies. In addition the engineering watch is responsible for the sounding patrol, who are the men who walk the entire ship, looking for leaks, for improper conditions, for anything which may weaken or impair the integrity of the ship.

Finally there is the after steering watch. There is always a secondary point on the ship where it may be steered in the event that the bridge is in any way impaired. This watch requires a qualified helmsman, such as a quartermaster from the deck to man this site. A Machinists Mate or an Electricians Mate is also required to assist in the shift of steering.

The Engineering Officer of the Watch may be a Chief Petty Officer or similar but it requires extensive experience and competence. The Grant had BB Lyons as its engineering officer, and he had both the experience and trust of the captain to carry out this task.

The Grant had two boiler rooms and two turbine rooms, and each had crew. They were the Wartertenders and the Machinists, boiler room and turbine rooms respectively. These were the "black gang" from the days when coal was used. These were the hottest places on the ship, the boilers using fuel oil and generating superheated steam at 600 °F and at pressures of 1,000 psi, going into the adjacent room where the turbines would convert the steam into the rotating motion of the turbine blades. A break in any one of the superheated steam pipes would create a death beam, blasts of the steam would melt human flesh in milliseconds, blasting anything away in its path. The water going into the boilers must be clean, no impurities, so taking care of the water generation was critical. Any mishap in the belly of the ship cold wreak havoc, there was no room for any error and the environment weighed down on the men watch after watch. The only advantage was that when you were near the equator it was actually cooling to go on deck, where the temperature was still in the 100s.

The engineering crew was small compared to its demands. Two men at all time in the boilers, three to five in each turbine. This would demand 35-40 men in the engineering crew. A grueling task, work that had to go on in the same monotony day after day, locked in the bowels of the ship, and then off duty, in the sack, exhausted and trying to catch some sleep, then back on watch. Also down with those high pressure steam lines you are in one of the most exposed parts of the ship, especially for torpedo attack or any attack which would burst those superheated steam lines.

## 2.7.3 Communications Watch

The communications watch is directed by the CWO, the communications watch officer. The CWO is assisted by the petty officers, the radiomen, who know the equipment and the signalmen who can assist with communications via visual means. There is a VHF radio which is used for secure long distance communications. There is also the newer TBS, the talk between ships radio which is a low power radio also at VHF which allows meshing of the communications between the ships in close proximity of one another. Then there is the visual or light signalling. This is a critical alternative, it use a high power light beam, which can even bee seen in the day time, and it uses Morse code to send the signal between ships. There may be one officer and three to six men per watch. Depending on how many watches, say day per day per man, there are anywhere from three officers and eighteen men required at this watch.

# 2.7.4 CIC (Gunnery) Watch

The gunnery watch, now called the CIC watch is where the radar, sonar, fire control, torpedo men and others focus their attention. It takes in all of the sensor data and is prepared at any time to respond.

The watches may be held under varying conditions. They were:

Condition I Peacetime Cruising Condition II Wartime Cruising Condition III Modified General Quarters Condition IV General Quarters For the Grant they were in Condition I most of the time and Condition IV from time to time. General Quarters requires the men to take alternative positions, even those who were not on watch. General Quarters means all hands on deck, it means each and every man takes a position to attack or defend, or to repair. Damage Control and the Damage Control Watch Officer becomes a key person at time of attack. We will see this evolve when we go onto the Leyte situation.

## 2.7.5 Memories

The crew has many memories of this early phase of their journey. Three events seem to stand out. The most significant was the storm at Cape Hateras. This may have been 15 February, 1944 and was at night. This was a horrific storm, a typical Atlantic Cape Hateras storm, one which has been sinking ships for hundreds of years. Then they remember Pearl Harbor. For many this was a chance to break loose in an American town and have a good time before going out to sea and face the enemy. The memories of the Cana with Colon on the east side and Balboa on the west are limited. The ship was escorting the Hornet and it had limited leave. Beside the canal was not as interesting as Pearl for many of the young men. Then there is the event on Bermuda where Nisewaner had to play heavy hand to get his men out of jail as a result of their excess of drinking. The result is a great love for the captain as one who is loyal to his men.

Captain Nisewaner recalls some parts of the early stages of the Grant<sup>20</sup>:

".....Captain D. L. Madeira knew that I wanted a destroyer command and immediately on arrival in New York went down to BUPERS (Bureau of Personnel) to check in and see what he could arrange. On his return he said, "You'll soon receive orders to put the ALBERT W. GRANT (DD-649) in commission." Then, he added, "It took a bit of talking because you will the youngest Commanding Officer of the new 210Q-ton destroyers in fleet,. Don't let me down." He must have talked up a storm because five of the new .skippers for DESRON 56 ships (nine of them) were Class of '27, five years my senior. The others were out of the classes of '29, '30 and '31.

The ALBERT W. Grant was building in Charleston, the last destroyer that they built in that shipyard, and after two weeks at the Fleet Sonar School, Key West, finally reported to Charleston in October 1943... The ALBERT W GRANT (DD-649) went into commission the day after Thanksgiving 1943, had its sea trials off Charleston and then went to Bermuda for our Shakedown of four weeks.. There I again ran across my old friend Capt. D.L. Madeira, who was in command of the Shakedown Unit. with the completion of the Shakedown Training we headed back to Charleston for a final Shipyard check, refueling, picking up ammunition and in :late December we were headed for the Pacific escorting the carrier WASP through the Panama Canal, up to San Diego and thence on to Honolulu."

Williams recalls in his diary that the shakedown was from 25 November to 27 December 1943 to Bermuda and then back to Charleston on 28 January 1944. The ship went from Charleston to Bermuda and then return. Some of the men had memories of spending time in Hamilton and

<sup>&</sup>lt;sup>20</sup> Nisewaner letter to daughter Sherry.

enjoying themselves. Some actually may have over-enjoyed themselves. On 8 February 1944 the ship went to Norfolk and then on 14 February left Norfolk for Panama.

The crew remembers the trip down to Panama through Cape Hateras. There was a tremendous winter storm and the ship was accompanying the Hornet, a carrier. The sea state was well above sea state five. Sea state is a measure of the severity of the surface of the ocean. A sea state 0 is a smooth lake. Not seen very often. A sea state 5 is one where the wind speed may be about 25 knots and the wave height about 10-12 feet. The length of waves may be 100-120 feet. That starts to give a rough ride. The destroyer is about 300 feet long so the ship is now bouncing up and down cutting its way through all of the hills and valleys. It would have to work very hard to keep up with the carrier which is about five times as large, and the carrier just cuts through the waves.

The storm at Hatteras was about 70 mph winds, giving a sea state 8 and the waves were 50 feet high. The Grant was raising up and then smashing down, it was up 50 feet at one second and then fall 50 feet the next. The Number 1 gun turret was smashed out of its base. The hulls was cracked, and it had to slow down and force the Hornet to slow so it could make it through. There was not a minute of silence, the ship was pitching, rolling, yawing, and men were sick everywhere. This was a harrowing moment, many ships had been lost here over the past 400 years, it was a graveyard of dead mariners. But the Grant got through. Her crew had passed its first test.

From Bugge's diary:

"Dec 27 we left for Bermuda on our shakedown. It was a rough trip. We had a rugged shakedown not only in ship crew also. We had each 1 liberty there.

We returned to Charleston on Jan 29 for our yard period. Ann came down and had a grand time together. On the 9<sup>th</sup> of Feb we left for Norfolk. Arrived the 10<sup>th</sup>. Ann & I were together again Feb 14<sup>th</sup>. We left Norfolk for San Diego.

Feb 19<sup>th</sup> We arrived at Panama and 20<sup>th</sup> went thru the canal.

Feb 27<sup>th</sup> we arrived in San Diego. Visited the Fox Theatre, the nicest I've ever been. Saw the picture "Jane Eyre" Feb 29<sup>th</sup> left San Diego for Pearl Harbor. Arrived in Pearl Harbor

March 4<sup>th</sup>. Began operating around the islands. Boiler broke down and entered Navy Yard P.H. Had one liberty and visited Waikiki Beach and The Royal Hawaiian Hotel. The beach isn't as beautiful as they say but the Hotel is really wonderful. Left P.H. Navy Yard

Mar 24<sup>th</sup> and out to sea for a weeks shore bombardment. Today is the 29<sup>th</sup> and we are having day and night exercise.

Mar 30 we were assigned to escort USS Bataan on maneuvers. Returned to port

April 1 and stayed over Sunday. On Monday with the USS Pemry? And Bataan left for the"

## Elkert remembers<sup>21</sup>:

"The Director was on the flying bridge and radar was secondary used Mark 37 optical rangefinder. That was my station. When we went on to Cape Hateras the deck was breached during violent storm; there was a strong diesel fuel smell; Then when we passed Hateras and headed to Panama there was lots of heat in bunks. Dolan was Ensign and Zangrelli was CPO of FC. Gilbert always teased me and always made me shine his shoes. On the Canal trip I had liberty on both sides of Canal."

#### Olson recalls:

"We went from Norfolk to Panama, worst storm on Cape Hateras in record occurred, we had some damage, the bow plate was torn loose, and a staunchion bowed. Captain Nisewaner was "Fearless Fosdick" during it all, apparently that was his nickname at the Naval Academy. The XO Bland then XO was Hamill. When we were going through the canal I was in awe of the gates, their size and they way the opened and closed and we just seemed to move effortlessly through the whole canal; San Diego some more crew cam on and some went to other ships."

#### Pfeifer recalls<sup>22</sup>:

"At Cape Hateras we had storm, we were trying to keep up with Hornet, that Hornet replaced one lost Midway, the older one was the one which was the Doolittle ship. A destroyer is a small ship and bounces in heavy storm. The carrier went smoothly, we could not keep up, there was lots damage. The Grant nucleus crew formed in Norfolk at Naval Training Center and we just moved some men in and out."

#### Carchidi also remembers:

" I joined the Grant at Norfolk. We had Liberty in Hamilton, Bermuda. They had ice cream on Bermuda which was icy and not creamy. It was like eating crunchy mush. They also had lots gin mills on Bermuda as well and we had lots of liberty. At one time just before we were to leave we had 18 of the crew arrested and put in Bermuda brig. Captain Nisewaner got on the radio and called police station and said "If I don't get my men back ...." the men were returned promptly. When we went on to Cape Hateras with the Hornet we faced a very severe storm. At Colon in the Panama Canal we tried our guns and then thru canal. In San Diego lost the XO Bland and got Hamill as XO."

<sup>&</sup>lt;sup>21</sup> From Elkert oral history.

<sup>&</sup>lt;sup>22</sup> From Pfeifer oral interview.

Crump recalls:

"The Deck buckled when in the storm off Hateras and the No 1 Gun Turret was also broken. In San Diego we found hotel on shore and we slept on couch."

# **3 CROSSING THE EQUATOR**

The ceremony of "crossing the equator" most likely dated back to the British Navy. In the US Navy it had become a sometimes brutal ceremony and at times led to men being severely injured. There are several characters in this drama. Those who have already crossed the equator are nicknamed Shellbacks, and are often referred to as Sons of Neptune, The ones who have not yet crossed the Equator are nicknamed Pollywogs. The collection of masters of ceremonies include King Neptune and his Court (usually including his first assistant Davy Jones and other similar dignitaries, who are all represented by the highest ranking seamen) who officiate at the ceremony. In this ceremony the Pollywogs undergo a number of tests, ordeals, and initiation steps (wearing clothing inside out and backwards; crawling on hands and knees on nonskid-coated decks; being swatted with short lengths of fire hose; being locked in stocks and pillories and pelted with mushy fruit; crawling through chutes and large tubs of rotting garbage; kissing the Royal Baby's belly coated with axle grease, hair chopping, etc), largely for the entertainment of the Shellbacks. Once the ceremony is complete, the new Pollywog receives a certificate declaring this new status.

The Grant was no exception. For many of the men this was another step in their Navy introduction and frankly was a day off from the tedium of their daily tasks, many of which involved the chipping of paint and the swabbing of decks. However, this was an egalitarian ceremony and included all, and that mean all officers as well. On the Grant all officers except one participated freely, and that one apparently had to be dragged down to meet Davy Jones. Carchidi recalls that the one dragged was Ensign Ted Merril, who was in the Gunnery Department. Ultimately Merrill along with all others went through the induction.



Figure 37 Pollywogs in mufti

Baldy Carlson remembers:

"Somewhere along the way before we crossed the equator, garbage was saved and I think it was kept in our motor whale boat'. which ordinarily took US for liberty from ship to shore. They were saving this "stuff' for initiation in crossing the equator for the first time. I should mention here we also had another boat but that was for the Captain's use only and it was called "Captain's Gig." For your information in crossing the equator: Before crossing the equator for the first time you were called a "pollywog." After the finished initiation, you were then called a "shellback."

I still have the certificate at home signed by "King Neptune." Believe it or not, even during war, the Captain allows someone from the crew to take over the ship, "King Neptune," who runs the show -Navy tradition, but I've read somewhere that someone got hurt and this practice is frowned upon. As said before, the garbage saved you had to lie in, submerged, off and on for a few seconds. you were hosed down completely and had to go through sailor legs spread and you were paddled as you went through. I should mention that the day before crossing the equator you, as a pollywog, could do anything to a shellback you wanted to, but who would as you'd really get it the next day.

They had a throne set up for King Neptune and you had to kiss his greased belly. Another chair was also set up and you were given a wide-spaced haircut through the middle of your scalp. And, if that wasn't enough, as you sat in the seat, someone gave you a short of electricity. You were fully clothed during this whole initiation process. That's all I remember of this escapade. I was glad when it was over."



Figure 38 Pollywogs eating a hearty meal

Sam Carchidi has his pollywog certificate on the wall of his home in Massachusetts after all of these years. However he still remembers the electrical shocks from the batteries he got on the wet deck during this process. The process of this initiation left bitter sweet memories, on the one hand it was a tradition from the deep dark past and it was that initiation into a club where everyone was an equal and on the other hand it did from time to time verge on the homicidal.



Figure 39 Pollywogs in a row

Harold Carlson TM 2C recalls:

"Somewhere along the way before we crossed the equator, garbage was saved and I think it was kept in our motor whale boat'. which ordinarily took US for liberty from ship to shore. They were saving this "stuff' for initiation in crossing the equator for the first time. I should mention here we also had another boat but that was for the Captain's use only and it was called "Captain's Gig." For your information in crossing the equator: Before crossing the equator for the first time you were called a "pollywog." After the ceremony, you were then called a "shellback."

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Carlson's card indicating his induction into the Domain of King Neptune is shown below. One can see these certificates and cards proudly displayed in many of the veterans of this period. As Carchidi said:

"War stopped for one day ... "



Figure 40 The Sacred Green Card

## 4 HOLLANDIA AND TRUK

Dutch New Guinea	Hollandia	4/21/44	4/29/44
East Carolines	Truk	4/30/44	5/2/44
Marshall Islands	Majuro Atolls	5/4/44	5/6/44
HI/Pearl Harbor	Oahu	5/11/44	5/29/44
Marshall Islands	Eniwetok	6/9/44	6/11/44

This would be the first time out as a ship, as a crew, and into harms way in the Pacific. It would involve two battles and would earn the ship its first two battle stars. The first would be Hollandia, on the north shore of New Guinea. Hollandia was part of the MacArthur invasion strategy and the Grant would be the "junior ship" on the line, unproven, and just there to support. Hollandia was integral to the MacArthur strategy. MacArthur was in charge of the southern command forces, and after he had abandoned the Philippines he fond a home in Australia. Hollandia was a breakout for him on his way back to the Philippines and ultimate victory.

Truk was part of the Navy operations under Nimitz. In MacArthur's mind the Navy would "assist him" in his ultimate goal, victory over Japan and the Navy would cover his flank by moving on and capturing the Gilberts, the Marshalls and Truk.

There was a rapidly evolving strategy of the war. In MacArthur's mind, it was a southern strategy going from land mass to land mass with the Army troops slogging it out against land based Japanese troops. To Nimitz, he began to see that the Navy could fight and move in strategic ways. The carrier fleet had introduced an element of being able to attack the enemy at any location. The choice of those locations were to be dictated by the other new strategic weapon, the long range bomber, specifically the B 29.

The new bomber just needed to get closer and in the theory of strategic warfare by air, all it would take would be the ability to control the sea and the air and enemy could and would be pummeled. Thus there was a conflict in strategic visions. The choice of invading the Philippines in retrospect, a choice to have been made in July of 1944 by Roosevelt personally in Pearl, was one which was purely political, he wanted to keep MacArthur and his friends out of the 1944 election. MacArthur would be tied up and bogged down in the Philippines and not be a threat to Roosevelt. Politics always trumps strategy.

The map below depicts the Marshalls and the Gilberts in relation to New Guinea. MacArthur wanted to be certain that his rear echelon was protected by having the Navy neutralize the islands. However, Nimitz and the air force wanted Saipan and Tinian to establish the B 29 bases. The Grant was a small player in these moves but what it saw was telling.

The overall scope of the action is shown in the map below. To the east were the Marshall Islands, one of the key locations for recovery. Then to the South the Gilberts and then to the south west the Solomon. They all had to be taken to secure access to New Guinea. To the south of New Guinea was Australia and Japan would have desired that. But Japan was now blocked. The Navy would be assigned the island hopping and secure the shipping lanes and MacArthur would go

and slog it out with his Army troops. The Army was fighting the Japanese version of the War, the Navy would be redefining war and bring home the end to the Japanese by enabling the small airfield at Tinian.



Figure 41 Gilberts, Marshalls, Solomon Islands

Truk is in the Caroline Islands, now called Micronesia. To the north east is Eniwetok, and even further north east is Wake, the island lost in the early days of the war. The vast spans of ocean, many times tested with the Pacific typhoons, would be the backyard for the Grant and many other ships in the Navy.



Figure 42 Truk, Saipan, Tinian, Eniwetok

The Hollandia and Truk missions were during the periods of 21 April 1944 through 29 May 1944. Both actions, although receiving battle starts and being proximate to the enemy and harms way, were to be a prelude for the next few actions.

Dutch New Guinea	Hollandia	4/21/44	4/29/44
East Carolines	Truk	4/30/44	5/2/44
Marshall Islands	Majuro Atolls	5/4/44	5/6/44
HI/Pearl Harbor	Oahu	5/11/44	5/29/44

#### 4.1 Hollandia and New Guinea

Hollandia is on the north west side of Humbolt Bay which itself is on the north central part of New Guinea. New Guinea sits just north of Australia. The Japanese occupied this territory and from it threatened Australia and New Zealand. Hollandia was a "jump too far" and was part of the strategic plan of MacArthur to secure Australia and to position himself for the return to the Philippines. In many ways it was a southern looking strategy, not one targetd at the Japanese mainland and the Japanese fleet. It was an action to ensure that the back looking portions of the war theatre would be secure. The Humbolt and Tanahmerah area had three airfields, the strategy being to secure them and using US airpower they could begin to secure the rest.

This would be the first action for the Grant. The crew had returned to normal after the crossing of the Equator. They had left the Marshalls on Majuro Atoll on 13 April, crossing the Equator on the 16<sup>th</sup> and arriving outside of Hollandia on the 21<sup>st</sup>. This time it was for real.

New Guinea is a large island just north of Australia. The Japanese had occupied its northern coast and had entrenched themselves in there in a secure manner. It was defended by both land and air and it represented a gateway to Australia. MacArthur saw this as a way to step to the Philippines. New Guinea is shown in the map below. The Japanese presence represented a knife aimed at the heart of Australia and a path back to Manilla. It was essential for MacArthur to common all of New Guinea.

Hollandia is a port in west central New Guinea on the northern coast. It is now in Indonesia. The entire island of New Guinea is a thick jungle and the crew of the Grant recall almost to a man the thickness of the vegetation and often wondered how the Army would ever hack their way through that growth.



Figure 43 New Guinea

New Guinea looks like a bird, vogel in Dutch, and the head of the bird is facing west north-west. The landing areas are near the bird head, the vogelkop. This incursion would be a long jump for the forces and it would involve MacArthur. Admiral Kinkaid was the 7<sup>th</sup> Fleet commander and the Grant was under Admiral Oldendorf who reported to Kinkaid. Down the chain it went until it his Nisewaner and the men on the Grant. Hollandia and the other target areas were small beach fronts with sets of mountains behind them, and the mountains rose to over 6,000 feet, all green, covered with dense New Guinea vegetation. The inside of the Island was inhabited by hundreds if not thousands of small tribes all speaking different dialects, and rumors ran about that they were still cannibals. The Japanese occupied the strategic shore areas and airfields. That was the target. But the Japanese also were embedded in the caves and other tactically advantageous defensive locations. In addition they had aircraft to set upon the ships.

#### 4.2 Recollections

From the Wesley Bugge QM 1C notes is recorded:

"The 20th we had the planes shoot one Jap plane down. The same for the 21st and the air attack started over Hollandia. The 22nd we were sent in along the coast to pick up pilots but it was a blind to use us as a decoy to draw enemy gunfire. We went within 1 mile of the beach but there was no guns there.

The pilot gag was to make us go in close.

Today we have landed 7,000 troops and no resistance. We have been busy on bridge, got compliment from squad 23 today on good work. Just listened to radio Tokyo and Jap music, sounded like amateurs . Am hoping it won't be long before it is over. Heard good news, the invasion of Europe has started. Are now in plus 10 time. Expect to leave here soon.

April 24th. We have just gone to general quarter, 4 Jap raids coming in. Fighter planes from carriers knocked all down. We have completed our duty here and are leaving for destinations unknown. On the 25th we have more Jap raids. Saw one Betty hit water & burn. We are steaming on different courses and fueling from tankers.

We are doing the same on the 26th and 27th. Both days attacked by Japs. On the 28th we received word we are to secure Battleships in bombardment of Truck --- date unknown. The 29th fueled and --- has our mail and unable to receive until fuel again. On Monday the 24th at midnight nearly hit North Carolina, missed it by 25 yds. We have just set clocks here to -12 time and at midnight will change to +12 and will have two Saturdays the 29th."<sup>*iii*</sup>

The Grant was at Hollandia from 21 April through 29 April 1944. For the junior destroyer it was picket duty. To some this was lousy duty, it meant sailing around to ensure that there was protection from the Jap aircraft and supporting the landing forces under MacArthur. During this time the Grant was attached to the 5<sup>th</sup> Fleet under Admiral Spruance.

One of the more memorable events at Hollandia was after the capture the Grant viewed the ship carrying MacArthur's personal furnishings arrive. They were to go into his new residence in the newly captured city<sup>23</sup>.

At Hollandia there was leave ashore after the capture and some of the natives would trade shells with the crew. Also the natives sold sandals and it appeared that life had returned to normal in a rapid period.

*Hamill* recollects one event at Hollandia:

"Having seen what happened in the Solomons, I was very aware of the vast difference between our lives and our existence when compared to the horrors our troops were going through on the

<sup>&</sup>lt;sup>23</sup> From oral history of Sam Carchidi 15 January 2007.

beach. I could honestly say a prayer for them and thank God I was in the relatively safe confines of my ship. Other than a few red alerts and the appearances of attacking enemy planes, daily routines went off on schedule. Again, when there were enemy planes, their targets were the bigger ships so that we were in little or no danger.

GRANT did have one suspenseful experience. We received a report that an American plane had gone down just inland of the beach. There was reason to believe that the pilot had survived and GRANT was sent to investigate and if possible effect rescue. We were given coordinates which pinpointed the location and as it was in Jap held terrain Captain Andy was hell bent to bring that pilot to safety.

Our charts were inaccurate and, as the bottom was sharp coral that with the greatest of ease could pierce our 3/8" inch steel hull we had to close the coast with reasonable caution. As it turned out, we were able to approach to within 15 yards, guns trained, ready for an enemy effort to somehow damage us. It was an unusual scene with a destroyer, bow nearly on the shore with the Captain, bull horn in hand shouting, "Navy pilot, Navy pilot, come to the beach. We're here for you."

After roughly twenty minutes, we knew our mission was futile and Andy could no longer leave his ship in a vulnerable position. His despair at being unable to save the pilot was obvious to his crew and be was further respected for his caring."

*Fuson* recalls that there were several minor actions with star shells to support the ground forces. In addition there were several large area bombardments again in support of the ground forces.

*Olson* remembers the pilot rescue attempt a bit differently from Hamill. In Olsen's memory, and he was on the bridge as quartermaster at the time:

"...there was a plane shot down and Nisewaner wanted to rescue the pilot...Bland was the XO at the time and he was also on the bridge...Nisewaner backed the ship up to the shore in an attempt to get the pilot on board but the coral and other debris was so heavy that Bland yelled at the Captain to stop...."

Olsen continued:

"...Nisewaner had a nick name from the Naval Academy, "Fearless Fosdick" and he would always try to go to the edge..."

Williams recollects Hollandia<sup>24</sup>:

"April 21, 1944 We were sent pretty close to the New Guinea beach to look for our Japs that were shot down. Could see a - few .laps and our planes strafing them. (We did some things that was right dangerous. We went up in there to see if we could find any Japs on these islands hut we never did find anybody. We didn't get into any trouble either.)

<sup>&</sup>lt;sup>24</sup> From the Diary of Timothy Williams.

April 22, 1944 Troops landed at Hollandia, New Guinea. Lost one man in landing. We stayed out and screened carriers. (We were just sailing around beyond the battleships.)"

## 4.3 MacArthur and Hollandia

The question could be posed, why Hollandia? MacArthur was actually opposing his senior staff who wanted to land closer to attack the Japanese. Hollandia was poorly defended but it would take the troops a long hike to get to the opposing Japanese. The reason why MacArthur did this was consistency with his strategy of attack them where they are not. Hollandia was that opportunity. It was also to be one of the first joint Army and Navy missions and MacArthur was almost paranoid about what to expect from the Navy. In many ways. however, the MacArthur strategy paid off, the total loss of life for the US was 150 lives. MacArthur would continue this low loss strategy throughout his campaign. This was dramatically different from the European theatre and also from the Marines approach.

*Carchidi* remembers that on or about the last day at Hollandia there were ships coming into the harbor off loading MacArthur's personal effects. In fact, in Manchester's book on MacArthur, he tells the tale of this relocation from Brisbane to Hollandia<sup>25</sup>. It was done in almost the beat of a heart. His new home was majestic, seated on the edge of a mountain and furnished in the style acceptable to a Caesar.

"Picket duty was a lousy assignment as a "junior can" went down a river in the jungle to search for pilot with heavy jungle on each side also it was there that Grant assisted in dropping off MacArthur personal belongings when he moved from Australia In Hollandia there were natives who came up to ship and sold shells and sandals. Crew bought some for coins."

Carchidi also recalls the local natives and their merchant skills:

"Picket duty was a lousy assignment as a "junior can" went down a river in the jungle to search for pilot with heavy jungle on each side also it was there that Grant assisted in dropping off MacArthur personal belongings when he moved from Australia In Hollandia there were natives who came up to ship and sold shells and sandals. The Crew bought some for coins."

<sup>&</sup>lt;sup>25</sup> See Manchester, American Caesar, pp 348-349.



Figure 44 Local Sales Men

It was frequently just trading cigarettes and towels and the like for shells and other trinkets. For many of the crew they were looking of men from another planet. The inhabitants of the islands and New Guinea had established themselves here tens of thousands of years before the European had come. They were friendly and open people and were probably just as willing to trade with the Americans and the Japanese. They had the side rigger boats and all of them were loaded down with collections of shells and others items for trade.



**Figure 45 Hollandia Natives** 



Figure 46 Hollandia Native Salesmen

The locals would come out in volume, boat after boat after boat. They had side rigged floats to stabilize the boat and the shell or hull of the boat was a carved out tree.

#### 4.4 Truk

After eight days in Hollandia, providing picket duty and trying to even see through then heavy undergrowth, the Grant was assigned to assist in the mission at Truk to the north.

Williams further remembers Truk:

"April 24, 1944 Left New Guinea. Passed within 12 miles of Truk. Planes and cruisers attacked Truk and Ponape. One Jap plane dropped bombs near the fantail of North Carolina which was next to us. We got our first shot at a Jap plane. That Truk was supposed to be a pretty dangerous place.

There was a big Japanese airfield there and they just went in there before we got there, and our planes went in there and bombed the heck out of them, so we didn't have any problems. We still had a few flying around that would come in from other places I guess and they would either shoot them down or chase them oft. But that Truk, I was glad to get by that place. When asked by Sam McEwen, "who was directing your fire on your guns", Tim answered, We had to load the guns, but the radar room would do the aiming and control the guns."

The Navy strategy was to harass Truk but that there would be no action. It was to be neutralized and prevented from being an annoyance. Thus unlike Hollandia there was no major invasion which the Grant was in support of.

#### 5 SAIPAN, TINIAN, AND PALAU

Marshall Islands	Eniwetok	6/9/44	6/11/44
Mariana Islands	Saipan	6/15/44	6/29/44
Mariana Islands	Tinian	6/15/44	6/29/44
Marshall Islands	Eniwetok	8/2/44	8/18/44
Solomon Islands	Purvis Bay	8/22/44	9/6/44
Palau Islands	Peleliu	9/12/44	9/29/44
Admiralty Islands	Manus Island	10/1/44	10/12/44

Saipan is part of the Mariana Islands, a collection of small islands north of the Caroline Islands and west of the Philippines. The Marians include besides Saipan, Guam, Tinian, and a total of almost a dozen named islands, small but with the ability to have airfields. It was necessary as part of the overall Pacific strategy to get airfields as close to Japan as possible. Saipan became a strategic spot, especially with the introduction of the new bomber, the B-29. The B-29 had the range to get it from Saipan to Japan and return, with Saipan the US could strike Japan directly and continuously for the first time. This meant a strategic advantage.

Furthermore, the air bases which were to be constructed here were to be used by the new B 29 bombers and General Curtis Lemay had selected Tinian as a main point for departure. It allowed him to get to and return from missions over the Japanese mainland. Also Tinian would be the base from which the Enola Gay would be launched for Hiroshima. Thus it was both strategically critical for the well worn path of the aerial war and was even more strategic for the delivery of the new weapon.

The distance between Saipan and Tinian and Tokyo is about 1400 air miles, easily in the range of the B 29s. It was open ocean and the US felt it could have air superiority in this space and thus the B 29s would have ready strategic bombing access. The map below depicts this direct route. In addition having a US base which could be readily and safely supplied added to the need. The alternative was to use mainland China which had many logistical problems.



Figure 47 Saipan to Tokyo 1400 miles

## 5.1 The Saipan Invasion

The Saipan invasion was scheduled for June 15, that was just a week after D Day in Europe. Although not as all encompassing as the invasion in Normandy, the invasion of Saipan was critical to the US ability to strike the Japanese at their home targets, it created a secure base to bring the threat directly to the homeland.

The official Navy History of the Grant states:

"Now the time was ripe for an American' incurs ion in to the Jap held Marianas Islands. After a respite in Pearl Harbor during the month of May, GRANT proceeded on 11 June 1944, with Task, Group 52.12 for the invasion and capture of Saipan and Tinian in the Marianas. During this operation, 15-29 July, the ship covered the initial landings, fired an numerous targets of opportunity, and furnished illumination counter battery and call fire which succeeded in reducing to dust many of the concrete pillboxes and other defense obstacles with which those on the beach were forced to cope."

Saipan is about 3 nmi wide and about 9 nmi long. It is a mountainous island jutting out of the Pacific, with Mt Toptchau being the tallest peak. The airfield was on the southern side of the island, which was the least of the hilly sections, more amenable to having such a facility. The hills, and mountains combined with the vegetation allowed the Japanese to find cover in many ways. The Saipan invasion elements are shown below.



Figure 48 Saipan Invasion

Tinian and its invasion elements are shown below.



Figure 49 Tinian Invasion

The islands of Saipan, Tinian and Guam are all mountainous islands, with heavy vegetation, many caves and places for the Japanese to secure themselves. The Japanese had been fortifying these islands for many years and they had intended to protect them to the last man. This again would be a battle to the death. Unlike Europe, where the Germans would surrender if it was hopeless, the Japanese would never even consider this. The battles of Saipan and the other

islands would burn into the American Military psyche how difficult the attack on the homeland would be.



Figure 50 Saipan and Tinian

Saipan would be the first real test of the Grant as a war machine and a true member of a battle group. Until this time the picket duty and patrols were those assigned to a junior ship. The Grant had now reached a training level which had great competence. It had also reached the level where its actions or inactions would save or loose American lives. The men of the Grant would themselves be in harms way, yet that was what they had agreed to do, but they had a much higher duty and concern, to protect them Marines who were going ashore to fight the Japanese in brutal hand to hand combat. They would have a front row seat in that battle and moreover they would have a front row duty to assist as a platform for raining down death and destruction on the enemy.

On the 14<sup>th</sup> and 15<sup>th</sup> of July the Grant started to bombard the coast. There were many targets of opportunity. In addition, the Grant soon gained a reputation of the best gun in the fleet. Gunnery Officer Jerry Marsh had whipped the entire Gunnery Department into a first class firing machine. The fire control men were first class and could detect and aim on a target in a very short period and then using the Director get the 5" guns set and operating so that almost any enemy location would be vulnerable.

# 5.2 The Players

The overall commander was Admiral Spruance. He headed the Fifth Fleet, which was renamed the Third Fleet if Halsey were in charge. Spruance was the direct opposite of Halsey. He was quiet, delegated extensively, planned impeccably, and then let his men do what they were supposed to do. This would be the case in Saipan and Tinian. He knew his orders and followed them expressly. In so many ways he was the antithesis of Halsey.

Spruance was a Naval Academy graduate in September 1906 ans was 25<sup>th</sup> in a class of 209. He was twenty years old and was a "passed midshipman", still two years in the Navy before he would make Ensign. Spruance had by this time been successful at the Battle of Midway in June 1942, the Gilberts in November 1943. the Marshalls in January 1944. He would be successful in Saipan and the Philippine Se battle and more importantly in February 1945 thru April 1945 at Iwo Jima and Okinawa.

At Saipan and the Marians he faced 60,000 Japanese troops and Spruance employed 127,000 troops with 600 ships.<sup>26</sup>

The northern attack force was commanded by Admiral Kelly Turner and General Holland Smith and the southern force by Rear Admiral Conolly and Major General Geiger. Turner was a brilliant strategist and leader but he had a sever drinking problem, which frequently led his commanders to question his ability to continue.

The overall Saipan and Tinian organization is shown below. The Grant reported to Oldendorf as Unit 2 of five units under TF 51. The unit was commanded by Cmdr. Fitzgerald. In that case the Grant and Nisewaner reported to Fitzgerald who reported to Oldendorf. Oldendorf would be there in Leyte as well.

<sup>&</sup>lt;sup>26</sup> See Buell, Spruance, p. 257.



Figure 51 Saipan and Tinian Organization Fifth Fleet

The other destroyers in Unit 2 of TG 52.17 were the Robinson and the Bailey. Unit 1 had the battleship Tennessee, Unit 4 the Maryland and the Colorado. The flag for Oldendorf was on the heavy cruiser Louisville. Spruance was on board the heavy cruiser Indianapolis and Turner on the cruiser Rocky Mount. The mission of TG 52.17 was to provide fire support for the Marine landing forces.

At 05:42 on the morning of June 15, 1944 Admiral Kelly Turner ordered the amphibious assault. Massive amounts of landing craft with 6000 Marines in the first wave commenced movement to the shore<sup>27</sup>. This landing was nine days after D Day in Normandy, but was on a scale of that landing, many beaches, many troops, many naval and air forces deployed in support. The enemy on Saipan was entrenched in caves and they had a suicidal killer instinct. They also controlled the locals and as such had bulletin allies in the people. This landing and attacks was to be a bloody battle for the Marines and Army forces to follow them. The first on the beaches were the Marines, and the resistance was strong.

At the same time the Task Group 58, the fast carrier group was in the Philippine Sea. This group is shown below:

<sup>&</sup>lt;sup>27</sup> See Morison, New Guinea, p 190.



#### Figure 52 Task Group 58 Philippine Sea

In the battle of the Philippine Sea, Spruance in TF 58 would have 138 ships to the Jap force of 69. Spruance had 7 large carriers to the Jap 5. Spruance also had 68 destroyers whereas the Japs had 23. This battle would be an air battle at the same time as the Saipan landings would remains a land battle with Naval support. Thus this time there were many balls in the air all at once<sup>28</sup>. This battle would also be called the "Marianas Turkey Shoot" since the US aircraft held substantial superiority.

#### 5.3 Crew Observations

There are many books and papers written on the details of invasions of Saipan and Tinian. These other works look at the battle from an overall perspective. The ability to look at it from the Grant's perspective allows the reader to see parts which may have been lost in the larger overview, the things that worked and the things that need change. The view of a battle from the perspective of a single ship and using the eyes of many of its officers and crew provide great additional insight.

The Grant was just one of the many players in that action but for most of the crew it would be their first true war action. Half the officers had seen some form of combat and men like Hamill had been at Guadalcanal and prior battles where both landings and attacks from the Japanese fleet were dual threats.

Ed Pfeifer, for whom this would be a first enemy fire fight recalls, recalls<sup>29</sup>:

<sup>&</sup>lt;sup>28</sup> See Tillman, Clash of Carriers or Morison, New Guinea, for the details.

<sup>&</sup>lt;sup>29</sup> From personal correspondence from Pfeifer 11 January, 2007.

"We played a larger part in the seizure of Saipan and Tinian. In this operation we provided gunfire support for the landing forces. We achieved some distinction in this affair because the accuracy of our 5" gun support. We also had on board a war correspondent named Jim Bishop who wrote an interesting feature entitled Sniper Ship on our pat in the affair for the Saturday Evening Post<sup>30</sup>. The Grant was known for the accuracy of our gun fire.

The person most responsible for the accuracy of our gun fire was our gunnery officer Gerry Marsh, a mustang who had been commissioned before reporting to the Grant, Gerry was ultimately promoted to the captain and a commanding officer of his own ship<sup>31</sup>. Gerry's language was always salty and vivid but he was loyal to his men and considerate to them."

In fact it was during the Saipan and Tinian actions when the Grant managed to develop and perfect its gunnery prowess. It also obtained publicity for its prowess as a sniper ship, firing precisely at enemy locations. This battle showed how effectively the destroyer could be a precision firing platform. The use of the director, the stable element and the computer allowed the Grant and other similarly equipped destroyers to aim at and hit targets with amazing accuracy. In the Saipan and Tinian engagement the Grant had extensive opportunities to demonstrate its expertise and to fine tune it to the highest level. However this was not a battle for torpedoes.

<sup>&</sup>lt;sup>30</sup> See Sniper Ship, John Bishop, Saturday Evening Post, November 4, 1944, and November 11, 1944. Morison also recounts the Bishop story on p. 325 of New Guinea and the Marianas. The term sniper ship was used to characterize the role the destroyer played as a high powered sniper gun firing at large enemy encampments.

<sup>&</sup>lt;sup>31</sup> Olson, oral interview on 29 October 2006, also remembers how well respected Marsh was a the Gunnery Officer. The fact that he had made it up thru the ranks gave the enlisted men a sense of bonding that was very valuable and Marsh respected then having been one himself.



Figure 53 Sniper Ship Saturday Evening Post November 7, 1944<sup>32</sup>

From the book by *Hunt Hamill* it is recalled<sup>33</sup>:

"While off Saipan another noteworthy incident brought home to all of us at sea just how lucky we were to be there! During a relatively calm period for us, we spotted two LCI (Landing Craft Infantry) boats coming our way. When within hailing distance we were asked if we had a Doctor and, if so, could we help as they had a number of wounded Marines on board and only one medic who could not cope with all the horrendous wounds of his men.

Our whole crew turned to with a will, carrying the wounded men on board, setting up accommodations, running the Marines' filthy uniforms through our laundry, preparing as fine a meal as we could put together for them and all the while our Doctor and our Pharmacist Mates took over the medical chores. We did not know at this point that our great Doctor Charles A. Mathieu and our Second Class Pharmacist Joseph E. Martin had but four more months to live.

Once the wounded were patched up, they were all re-embarked in their LCIs and off they went. We were left to once again contemplate our good fortune in having GRANT to call our home and our haven. Also we wondered briefly just how our beaten up Marines really felt about us. We knew that they envied us our life style though they did say they'd be glad to once again be on dry land. Not so with us!

<sup>&</sup>lt;sup>32</sup> Obtained from Ed Pfeifer.

<sup>&</sup>lt;sup>33</sup> From Hamill's book.
The third incident, in retrospect not very pretty, took place off Tinian, Saipan's close by neighbor. On a bright morning, as we more or less drifted by, Jerry Marsh our irrepressible Gunnery Officer called from his gun director that he had a "target of opportunity" and could he "test" his gunnery with one five inch shell. The target he described was a small tin shack on the side of a lengthy hill. When given the location Captain Andy put his binoculars on the hill side as did I. There, racing up toward the shack were three Jap soldiers with guns slung over their shoulders. Without giving the matter too much thought Andy sent word back to Jerry. "OK Jerry, but just one".

That's all he needed. I heard Jerry's order, "Number five gun, prepare to fire." Our number five gun turret, located on the fan-tail at the stem of the ship, was far enough away from the bridge so that there was no muzzle smoke nor anything to interfere with our line of sight. Controlled by the director above us, #5 gun fired just as the three enemy were opening the shack door. We could see our projectile's tracer as it went through the door a second or two after the door had slammed shut. The shack and its contents disintegrated.

Interestingly, this incident, really a tragedy, seemed a huge joke at the time. Probably because life was then cheap and daily there were dead Japs floating about us. Not a pretty sight but at the time, commonplace. Jerry was ecstatic, complementing his gun crew and saying it looked like something out of a Tom Mix movie. GRANT again provided shore bombardment as the Marines stormed ashore on Tinian in an operation that was similar to what had just occurred on Saipan<sup>34</sup>.

Unfortunately Japanese shore batteries found the range of BB COLORADO and one of our fellow shore bombardment destroyers. The NORMAN SCOTT was mauled by heavy shells which killed her skipper and some 20 more of her crew."

The discussion by Hamill of the 5" fire procedures was also expanded in discussions with Crump and McGiness.<sup>35</sup> In their recollections for a period of three days, sometime during the 17<sup>th</sup> through the 21<sup>st</sup> of June the Grant bombarded the shore.

One of the shore targets was a large sugar mill. Jerry Marsh set this as a prime target and let loose with several of the 5" guns, sending shell after shell into the mill. Then is just exploded as a shell must have ignited some of the dust and sugar syrup that had been in the mill. The explosion blew the mill well into the air and as it began to fall back to earth another dark cloud began to rise from the mill of its own volition. The cloud was black and growing like some monster and heading out toward the ship.

The Grant had demolished the sugar mill but it had let loose the devil in the cloud, since the mill had been home to millions of flies, the largest most vicious flies ever known to mankind. They were "five pound flies", they came to the ship and for the remainder of the time at Saipan they were more of a hazard than the Japs. The only way to get away from them was to set to sea at 30 knots and hope they would get tired of following.

<sup>&</sup>lt;sup>34</sup> From Morison, New Guinea, there were approximately 9000 Japanese troops on Tinian.

<sup>&</sup>lt;sup>35</sup> From oral interview with Crump and McGiness in Orlando, FL, 20 January 2007.

But the story does not end there. The Grant had set loose a small plague. From Buell's biography of Spruance he recounts<sup>36</sup>:

"On 17 July King and Nimitz landed at Saipan to inspect the island, and Spruance went ashore with them....The guests ... assembled latter for dinner in Spruance's flag mess. The meal was a fiasco, owing to the gigantic swarms of enormous black flies that inundated the flagship.(Capt.) Moore remembered them vividly "It was the kind of fly you couldn't scare off" he recalled "You had to push it. It would light on your nose and you would practically have to pick it off....at mealtimes it was a horror because it would be in your food and under your spectacles and into your ears. You had kept thinking that the flies had all been eating dead Japs and were coming out to the ship for a little fresh air."

If only King, Nimitz, and Spruance knew that it was the Grant's fine shooting that let the horde of flies loose from the sugar factory a few weeks earlier, angering the millions of "five pounders" and setting them loose on the entire island and surrounding waters. They may have eventually been set loose to wander but they seemed to be happy eating the sugar, no sugar and they sought the less delectable alternatives, the Jap bodies. That was the thought that Moore recalled in the above quote.



Figure 54 Grant Gunfire at Saipan<sup>37</sup>

Hamill further recounts an efforts to save the Marines as well as dealing with the Japs:

"Saipan appeared to be a tranquil tropical island the morning of our arrival but after we had shelled her shores for several days she looked to be barren real-estate. It was always a shock as it seemed immensely immoral to so disfigure these bits of tropical paradise and make of them stark waste lands that more resembled Hades.

<sup>&</sup>lt;sup>36</sup> See Buell, Spruance, p. 196.

<sup>&</sup>lt;sup>37</sup> Obtained from collection of Ed Pfeifer.

Our shelling commenced June 14th or 15th and continued for several days. Our targets were Japanese artillery positions. sometimes located by seeing the muzzle flashes of their guns and sometimes by artillery spotters. First on Agingan Point and then in and around the major town and Jap command center, Charan Kanoa.

Toward evening the first day we ran close to shore in an effort to verify what we thought we were seeing. Sure enough, in the surf and under a long high ledge were hundreds of Japanese troops. They had been trapped there and our Marines could be seen some 60 feet above them below Mt. Tapochau. We managed to get through by radio and we described to the Commanding General just what the situation was. We explained that we could wipe out this potentially very dangerous threat.

We were asked, "Is there any danger to our troops?" Our answer: "None whatsoever." Next question: "How long will it take?" "One or two minutes"

We were told to "Wait," which was tremendously, frustrating as elimination of these trapped enemies would have been very easy. Time went by.

In the late afternoon a Jap soldier was seen to jump off the cliff. He must have been an athlete as he survived the jump and commenced swimming toward the GRANT. We were just out of range of the Jap mortars. Andy ordered the motor whale boat put over and with Coxswain McGinnis at the helm four men headed in toward the swimming Jap<sup>38</sup>.

Suddenly mortar shells straddled our boat. Emmett reacted quickly, swinging his boat away and back toward its mother ship. A subsequent shell blew up the swimmer! We felt this was a planned action and It gave us second thoughts when later we contemplated the length to which the enemy would go when their homeland was attacked.

Darkness came and still no answer from the Commanding General who obviously had a limited understanding of destroyer capabilities with our five inch guns. Andy Nisewaner, our skipper was concerned that these many troops would break out with resulting casualties to our marines. As darkness descended GRANT put herself at risk by periodically opening up her powerful search lights to make certain that the lap soldiers were not making a break. At roughly 2200 we were ordered back to picket duty without taking any action to eliminate these murderous enemy troops.

Tragically, before dawn these forces did break out in a Banzai attack that resulted in the deaths of over fifty U.S. Marines, so much for bull headedness and lack of inter-service understanding and confidence. When we heard what had ultimately occurred on that miserable hillside, morale aboard GRANT slipped to the lowest level I ever sensed it to be. There were tears of frustration and anger and helplessness"

<sup>&</sup>lt;sup>38</sup> From email of McGiniss on 18 March 2007.

Crump recalls the event in the boat as follows<sup>39</sup>. There was some Japanese soldier with what appeared to be a sword and other paraphernalia which made him look important. He was swimming towards the ship:

"The Captain figured he must be a high ranking officer, who might have some useful information. He called the whaleboat away, to go pick him up. The crew of the boat, reported to the boat and got it ready to be lowered. I was the coxswain, Hackett was the bow hook, and a motor machinist mate was the engineer. A gun crew of seven or eight men was selected and Lt. Crissy was boat officer. After all men were aboard the boat was lowered and we were on the way to pick up the *J*ap in the water.

As soon as we headed for the Jap in the water the Japs under the cliff opened fire at the boat with machine guns and mortar shells. I could hear the machine gun fire going over our heads, and the mortar shells hitting in the water around us. When they opened fire on us, the gun crew in the boat opened fire on the Jap in the water. The closer we got to the Jap the closer their mortar shells were coming to us.

I looked at the Jap in the water and he was waving us on. As the mortar shells were getting closer and closer I looked at the boat Officer hoping he would tell me what to do. His pistol had jammed and he was white as a sheet. I looked back at the Jap and he was going under water. I knew that our gun crew must have hit him. I still had not received any orders from the boat Officer. I knew if we did not get away from there that a mortar shell was going to hit us soon. I took it upon myself to turn the boat around and head back to the ship. The boat officer never said a word.

When I pulled along side the ship to be hoisted aboard the boat officer asked the Captain if he wanted us to go back. The Captain's reply was no. I think all that was in the boat were thankful to be back. What a close call. The next morning the Marines came out in a amphibian boat where we were the day before, and started firing at the Japs under the cliff until they wiped them out. We could have fired just one 5 inch salvo and wiped them all out in a matter of seconds. Guess the Marines wanted to be the heroes."

Regrettably Chrissy would also have a problem in Leyte, freezing while in charge of the helm during the attack.

<sup>&</sup>lt;sup>39</sup> Letter from Crump to the authors as of 20 January 2007.



Figure 55 Grant Crew at Saipan with Flags<sup>40</sup>

Nisewaner also recalls a great deal about Saipan. In his first set of recollections he states<sup>41</sup>:

"The Albert W Grant) arrived at Manus Atoll where we were assigned to the "Little Beaver" squadron under CAPT Arleigh Burke and a Japanese base in New Guinea<sup>42</sup>. As a plane guard, we picked up pilots who had carrier mishaps. One had his tail hook break and he skidded over the side: he was picked up in the wreck of his plane completely unconscious.

<sup>&</sup>lt;sup>40</sup> Obtained from collection of Harold Carlson.

<sup>&</sup>lt;sup>41</sup> From Nisewaner report in Annapolis Alumni bulletin.

<sup>&</sup>lt;sup>42</sup> Burke eventually became the Chief of Naval Operations. He was Naval Academy Class of 1923. One of his more famous sayings as reported by Potter, Burke, p. 73 is: "Son, can you tell me the difference between a good officer and a poor one?" the young ensign looked at Burke answerless and Burke replied "The difference between a good officer and a poor one is about ten seconds." This statement is very akin to the Nisewaner statement to his young helmsman OOD Ensign "Wilson", "Wilson! ACT, DAMN IT, ACT DON'T THINK, ACT!" On a ship one has to act not start thinking. Thousands of tons of metal and explosives are moving and they don't stop and wit until the answer can be confirmed. It is like a field surgeon, when the arterial blood is pouring out you must have the plumbing in your hear well enough to act and clam the right spot, the wrong one and the patient is a goner. At the time of Saipan Burke was the staff officer for plans for Spruance and TF 58.

.....Next came the invasion of Tinian and it was interesting listening to the voice conversations of the Marine tanks talking back and forth. I remember well one commander calling out, "Get over here and cover me, it's getting damn lonely on this hill!" Later we heard a Marine captain say to his command; "I've got about a dozen Japanese Marines holed up in a picket. What should I do with them?" Back came the order, "Shoot the S.O.B.s." Then a reply, "Can't, they've just surrendered."

Homer Burns remembers the small things<sup>43</sup>. He could actually see the cattle as the grazed on the hillsides on Saipan. He remembers the seamen being on continual alert in the event of any attacks by enemy aircraft. The crew always was watching out for Jap planes. For most this was their real first experience with war, a war where in a mere second you could end up dead.

Then, Burns remembers, there was a floating mine spotted, and this sent all the crew to battle stations and General Quarters. The mine had to be disposed of. The Grant used its own weapons to fire upon the mine and exploded it. After that Burns recalls Captain Nisewaner coming up to him and saying: "Who reported this?" and someone said; "Burns" and then Nisewaner replied; "You will get a big medal, good job!". That made Burns feel great and that was typical Nisewaner.

Then at night, off the high cliffs the Japs were waiting the start a fight. The Grant sent tracer shells along with the 5" shells and you could see the lights from the tracers screaming across the darkened sky towards their targets. Then there were tracers coming towards the Grant, but the Grant was out of range.

As the sun rose you could see women carrying babies on the cliff and they were jumping off committing suicide. Apparently the Japs had convinced the locals that the Americans would commit atrocities on them. The water was soon filled with bodies, 75 to 100, floating, women, children, babies, and as the days went on they bloated up and just remained there. It was a human tragedy, the Japs were viewed as totally inhuman.

On D Day off of Saipan, June 15, 1944, the Grant was stationed off Yellow Beach part of Fire Support Unit 2. She was in front of the Robinson and on her south side was the battleship Tennessee. To the north of the Grant going along the beach, now into Blue Beach was the N. Scott. The north was Green Beach and finally Red Beach. At then end of Red Beach was the California. Two battleships, two cruisers and seven destroyers<sup>44</sup>. The invasion was to be on the southwest coast, near Charan Kanoa, over the coral edges of the outcrops, and onto the heavily held island of Saipan. The Yellow Beaches which were being partly supported by the Grant on invasion day lay stretched out under a clear sky and a warming sun. Behind the beaches were acres of fields of sugar cane, that insidious plant which allows for the enemy to hide and encumbers forward movement and no protection. Cane fields would become killing fields. The sugar mill in Charan Kanoa would become a major target. The mill was almost directly ahead of the Grant on the coast.

<sup>&</sup>lt;sup>43</sup> From Burns oral interview 9 December 2006.

<sup>&</sup>lt;sup>44</sup> See Hoffman, Saipan, pp. 46-47.

Saipan's temperature ranges in the 80s during the period of the invasion and the island gets about 125 inches of rain per year. As a comparison New York City gets about 42 inches. The major industry on Saipan was sugar production. There were three large plantations and two sugar producing factories on the island<sup>45</sup>. The south side of Saipan was flat and the Japanese had an airbase. The north side was quite mountainous and had a small single mountain, Mt. Topotchou. Along the northern coast lines there were high ledges sat many tens of feet above the water line.

The overall action was under the command of Admiral Turner and the Marines were under General Holland Smith.

The plan of attack for Naval bombardment commenced on the afternoon of 11 June 1944. There would be three and a half days of bombardment not only of Saipan but also of Tinian, Guam, Rota and Pagan<sup>46</sup>.

This battle was also one of the first to aggressively employ underwater demolition teams (UDTs) who would swim ashore and attempt to clear the approach. This was done under cover of darkness and was both extremely hazardous and risky and was also very difficult. However the UDTs were totally successful. Their positive report came back at 0400 on 15 June. During the first few minutes 8000 troops and 700 LVTs, landing vehicles, were on the beach.

Wesley Bugge, QM 2C, reports in his detailed log many additional facts<sup>47</sup>:

" June 9<sup>th</sup> we arrived in Eniwetok, Marshall Islands. We stayed there for two days. On June 11 we left for Saipan in the Marianas.

We arrived off Saipan on the evening of June 10<sup>th</sup>.

On the June 15<sup>th</sup> the invasion started. The invasion of Saipan, at midnight we picked up Saipan on the radar. At 03:00 the Robinson and Grant were sent ahead to test beaches and open fire to clear beaches.

At 04:58 we went to G.Q. As we were nearing the island not a shot fired. At 05:40 we closed the beach, received no fire so did not open up. The battleships were doing the firing on Charan Kanoa. Planes are bombing and the town is in smoke.

At 06:25 the transports closed assigned area and at 06:59. The tanks commenced moving in at 07:11. The Japs opened up on us. Shells fell near our starboard bow. At 07:15 ceased maneuvering and headed to support fire position. At 07:20 the big boy stated the landing, would

<sup>&</sup>lt;sup>45</sup> See Hoffman, Saipan, pp. 7-8.

<sup>&</sup>lt;sup>46</sup> Hoffman, Saipan, p. 35.

<sup>&</sup>lt;sup>47</sup> From Wesley Bugge personal log.

take place on time. 07:30 the USS Tennessee ceased firing. USS Norman Scott opened up. 07:32 USS Tennessee opened up.

We took station behind USS Bailey. 07:44 We opened up on boats near beach. 07:50 ceased fire. "H" hour delayed 10 minutes. 08:07 We commenced firing. Hit building. We are now within rifle range of beach, 700 yards, firing 5 inch and 40 mm. This is prearranged fire to clear beach as Marines and soldiers are moving in. 08:17 The Japs got a plane over Tinian, both pilots bailed out into water, picked up Japs shooting at them in water. 08:30 first wave hit beach and terrific fighting commenced. We are firing into Jap lines.

They are firing back at us. 08:53 another one of our planes down. Pilot bailed out behind Jap lines. 08:57 Another plane, no pilot. Japs concentrated heavy fire into our tanks. Firing into hills.

09:14 The Tennessee was hit by shells from Tinian. She headed for Tinian all guns blazing. She has a hole forward of fantail, fire out. 09:43 We are ordered out of range of shore batteries. 10:05 Second and third wave moving in.

The Japs are firing into the tanks but at 11:10 Japs are driven inland 2 miles. We ceased fire waiting for new target. At 11:26 another plane shot down, at 12:01 we moved in to open up on shore batteries.

Cannot contact own S.F.P. Killed in first landing. Contacted other S.F.P. and opened up on target at 12:16. 12:24 We knocked out target, moved out. 13:20 landing barge came alongside with Marines and Army casualties 8 badly damaged and shell shock.

16.40 Leonard would receive our casualties, continued firing all afternoon. 18.20 Firing let up. Hell in battle. 18.42 Jap planes attacking. 18.48 open up on planes. 20.10 we open up on Tinian, harass fire. 21.11 more planes. 23.45 ceased firing, secure from G.Q.

June 16 at 02.01 Planes again investigated barges moving from Tinian to Saipan, found none. 03.16 secured. 05.00 G.Q. planes again opened fire. 07.50 commenced firing shore batteries Tinian. 08.17 contacted new S.F.C on Saipan 11.20 opened up on target. 12.01 new target.

12.25 Relieved by Remey, secured from G.Q. 13.55 G.Q. Bombarding north end of town. Report came in troops driven back to beach during night, suffered heavy casualties.

15.33 assigned new target. 14.43 target out. 16.10 new target 16.14 target out. Got report on our excellent fire. 16.25 new target. 16.40 target out. 17.09 new target. 17.25 ceased firing, returned to outside end of area, secured G.Q. 20.30 G.Q. commenced harassing fire on Tinian.

23.00 Ceased harassing fire. 00.28

June 17 Commenced on new area of Tinian. 12.55 completed fire on Tinian.

Today is July 14. We are patrolling off Saipan and tonight are to escort cruisers out about 60 miles then come back in another outfit. The third fleet is to invade Guam tomorrow. Invasion

Saipan continued. Moved over to Saipan for spot firing. 03.17 Commenced firing. 04.02 target out. 04.41 new target. 06.34 Ceased firing released from spot firing. 12.20 G.Q.

Targets to be spotted by plane from Louisville. 12.58 opened fire. 13.05 received word from planes to cease fire, mission accomplished, started many fires. 13.32 opened fire new target. 13.37 new target. 13.48 new target 13.54 new target. 13.57 check fire 13.59 fired 14.08 ceased fire, relieved.

15.25 alongside Colorado to fuel 16.30 assumed patrol 18.00 air raid, leaving for fire support, area planes dropped bombs on starboard quarter, sending up heavy anti aircraft barrage. 19.38 secured from G.Q. This ended the first phase of invasion for us as we are nearly out of ammo. Have only eight minutes firing left.

June 18 Air raid alert. We have been screening and firing night harassing fire with star shells. Our ammo is getting mighty low.

June 21 We left for Eniwetok with transports. Arrived the 25<sup>th</sup>. Sent out to fuel from tanker immediately, then alongside ammo ship. Received 2,000 rounds ammo. Upon completion carried supplies aboard. All hands turned to all night and day, no rest. The 28<sup>th</sup> we went out with Bunker Hill, came in again.

June 29<sup>th</sup> taking transport to rendezvous at 03.45, returned afternoon. We laid at anchor until

July 1<sup>st</sup>. Received fuel and proceeded back to Saipan. Arrived Saipan

July 5<sup>th</sup>. The fighting is heavy and we were assigned shore fire day and night.

July 10<sup>th</sup> we had 800 to 1000 Japs cornered in north Saipan under a ledge by the beach, the Marines behind them and we outside. The shore parties would not let us open up as they were afraid our troops were to close for shrapnel.

This brings me to July 21<sup>st</sup>. I haven't written this sooner because the Captain had the invasion log. During the invasion I was recorder for the Captain and he has the book so he could write his story.

I have just completed the invasion on July 15<sup>th</sup>. They did not invade Guam as scheduled. We are now still awaiting word. Between July 14 and now we have fired and patrolled. We took a few troop ships a couple days out from here and returned with more troops. Today we are receiving our orders for tonight's invasion and bombardment of Tinian.

We now have Saipan although there are a lot of snipers. One incident I forgot was July 11<sup>th</sup>. One of the Japs under the ledge started to swim out toward us. We sent the motor whaleboat to pick it up and Japs on shore opened up on us. Gil shot the Jap. Our ship was given most credit for best fire support of any ship. No wonder we lost so much sleep. The first few days the Marines caught hell, the waters around here are full of floating bodies. After a few days there were at least a thousand Japs floating around."

For the men this was war. They now were seeing the enemy dead and the American wounded. The shelling of the shore locations had become personal. The forward controllers had been killed and men they had tried to protect had also lost their lives. The Bugge detail is a different view than Hamill, it is a minute by minute clinical view of the activities. It is the war for the record.

Finally Nisewaner further recalls<sup>48</sup>:

"In late August and early September it was week after week of the invasion of Saipan and Tinian where the A. W. GRANT was assigned as a "close-in" fire support ship. Twice the Marine Units ashore directing our fire were over-run and killed. We would call and call but only silence. We would then report to headquarters and make ourselves available for another fire support team. This was a brutal action with the Japanese defenders fighting right down to the last man.<sup>49</sup>

The Japanese had brain washed their family and civilians of what the beasts of America would do if captured and we watched in utter horror as they would throw the women and children off the cliffs into the water before Jumping in themselves.

For over a week after hostilities opened up, whenever one could sight a slick of what might be oil on the water, you knew that it was another body. Once about a week after the initial landings the A. W. GRANT was assigned as a close in fire support ship off the northwest point of the island and we got curious about a large rock about 100 feet high off the beach.

The Japanese were extremely clever with camouflage so as a test I had our Gunnery Officer, Gerry Marsh, open up with two batteries (four rounds of 5" shells) on the rock. To our surprise Japanese started tumbling .and running out from allover... the concussion of the shells must have been terrific. We then opened up full battery fire as a welcome to the real world for whoever was left. A day later we closed close to the coast, on the west side of Saipan about five miles from the main town and spotted what looked like about 400 Japanese soldiers and officers: hanging under an over-hang on the cliff along the beach.

We requested permission to open fire with our 5" guns because we could wipe out the entire contingent in two to three minutes with no danger to any of our own troops in the area. Way back from the beach but closing in on it. Our 5" guns were controlled by a stable element which kept the guns at the correct angle of fire when the ship was rolling.

Hence we could hit targets with excellent accuracy and not be subjected to high "overs" or low "short ones". The Marine Brig Gen. on the Staff said, No, there is too much danger of hitting the troops on the slopes behind the beach it He just did not know one damn thing about the ability of our guns. and stable fire control. We had to wait in agony as it grew dark and ... then fire star shells for illumination for our soldiers and marines as the Japanese along the beach (the same one we could have wiped out in a few minutes) attacked up the slopes.

<sup>&</sup>lt;sup>48</sup> In a letter to his daughter Sherry in 1991.

<sup>&</sup>lt;sup>49</sup> Morison, p 198, the author states the problem was often bad radio operations.

We lost a lot of good marines that evening because one damn BRIG GEN (USMC) did not know the capabilities of our ships."

The interesting observation was that the Grant had great accuracy and precision in its firing capabilities. And with Jerry Marsh and his men they could pinpoint a location and hit it with almost no risk of collateral damage. This was an example not just of ignorance of a Marine General but failure of a coordinated and worked out command and control methodology. The CIC would play a key role in a Task Force operations, but it would not play in a Fleet to Fleet operations as would be seen in the Halsey and Kinkaid debacle at Leyte. Moreover it had not even been thought over with sea and land forces.

There was no integrated command and control strategy, no way to communicate, no way to utilize all of the resources available and save American lives. However, the thinking to adjust to these changes was there and changes did occur, and rapidly as compared to what one can see in today's military.

Nisewaner continues in his letter;

"Next came the invasion of Tinian and it was interesting listening to the voice conversation of the Marine tank units (all small) talk back and forth as they covered the terrain. I remember well one of the tank commanders calling out, "Get over here and. cover me.. It. is getting damn lonely up here on this hill." Later we heard a Marine Captain say (to his command), Hey, I've got about a dozen Japanese Imperial Marines holed up in a pocket. What should r do with them? Back came the order, Shoot the "SOBs" Then a reply, "Can't, they've just surrendered.".

During almost all of this operation we would retire in the, evening under well screened units (we were doing the screening) and then back in the early morning to start allover again. This was to prevent us from being "sitting ducks" for any Japanese submarines or possible stacks in strength by other Japanese units.

One Japanese Unit in strength did try to come to the rescue but our carrier task Force under Admiral Raymond Spruance drove them off with tremendous loss of Japanese units and the loss of a lot of American planes who flew to the utter limit of their endurance to catch the Japanese Fleet. This carrier action later came to be known as the "American Turkey Shoot"<sup>50</sup>. Admiral Spruance continued onward he could have destroyed almost two-thirds of the Japanese Fleet and he was heavily criticized BUT he later stated, "My MISSION was to protect the ships at Saipan"<sup>51</sup>.

<sup>&</sup>lt;sup>50</sup> Also Battle of Philippine Sea and "Marianas Turkey Shoot".

<sup>&</sup>lt;sup>51</sup> Potter, Burke, p. 151, the author states that Spruance followed his orders which were: "capture, occupy, and defend Saipan, Tinian, and Guam" This left Spruance no room for adventures to follow a Japanese fleet. The opposite was the case with Halsey at Leyte where he went after the fake Japanese fleet and left Kinkaid undefended resulting in massive loss of life.

Who was to know whether another Japanese Force existed that could have made an end run, blinded sided the ships and destroyer almost every one of them. Spruance, one of the truly great Admirals of WW II, was in my opinion, 100% correct. Don't forget your MISSION. Admiral Halsey later did just that, forgot his MISSION, in the Battle of Surigao Strait and because of his "goof" we could have lost the Battle of Surigao Strait. But the Japanese make mistakes, too, and threw away their chance.

The invasion of Tinian was one continuous operation with Saipan, one picking up when the other was completed. For the first two days of the Tinian invasion we were assigned to targets in the northwest of the island and then after our initial landings were assigned to fire at targets of opportunity off Tinian Town.

We covered the beaches, the town as far as we could see and the cliffs to the right of the town as one looked East at it. The terrain rose sharply about 15 feet above the beach and about 100 yards from the normal waterline. We would have shells hit the beach and explode with 2-3 times the explosive force of a 5" shell.. probably hitting a mine.

Other shells would disappear into the small 15 ft. rise in the terrain behind the beach without a whimper. Probably the shell went through camouflage netting and exploded inside a cave or whatever. After over 24 hours on station slowly cruising back and forth off Tinian Town I requested that we be relieved because we well down to about 12 rounds per gun and could not carry out any fire support mission if called on.

We were relieved shortly and sent to rendezvous with ammo ship in Saipan Harbor. Less than half an hour after We were relieved, the hidden Japanese batteries in the cliffs above Tinian Town opened up on my relief ship. CDR. Owen, the skipper and a good friend from academy days was killed as was 9 of those on the bridge. Another close call. That could have happened up on us at any time."

Williams has recalled a great deal of detail in his Diary<sup>52</sup>:

"June 15, 1944 Arrived at Saipan. We started shelling the beach at 8:00 a.m. Troops went ashore at 8:30 a.m. We stayed at our guns for three days and two nights. About out of ammunition. We were credited with knocking out a lot of shore batteries, troops and other targets. Six of our wounded troops were brought aboard for treatment. The soldiers and marine's loses were pretty heavy the first few days. We had a Saturday Evening Post writer aboard for this trip. His name was John Bishop.

June 20 1944 Left Saipan for Eniwetok.

June 24: Arrived at Eniwetok. Took on additional fuel and stores. (We usually loaded off of supply ships. They pass it over to us and we took it and stored it on our ship. Eniwetok was a pretty famous place to go, we went there right often. It wasn't too far from the Philippines. You go there on a beer party. Give everybody a can of beer. And if there was someone on board who

<sup>&</sup>lt;sup>52</sup> See Williams Diary.

didn't drink beer, I'd give him a dollar for his can of beer. That is where I got most of those little shells.)

June 25: Went. ashore on a beer party. Went swimming. Brought back Jap hand-grenade and sea shells.

July 1: Left Eniwetok for Saipan.

July 6: Arrived at Saipan and shot star shells all night. (This was to keep it light and keep the enemy awake so he wouldn't get any rest. Be didn't know if were going to start firing on them or not, and sometimes we did, we'd just fire a shell over in there just to keep him awake.)

July 7: About 1500 yards from the beach we shelled Japs running along the beach.

July 8: We shelled the beach again today. We can see our troops using flame throwers. Can see quite a few of our troops and tanks. Directed fire tonight for our troops. (The troops usually had a spotter that would tell you were to shoot. Those guys in the tanks up there, they were talking back and forth to each other and you could hear the.. and they were having a good time.).

July 9, 1944; 1000 yards from tile beach. Shelled Jap troops, pill boxes and a house. I can see hundreds of Japs trapped on the beach behind a cliff. They won't let us fire on them because our troops are too close to their. Planes dropped leaflets over .the- trying to get them to surrender. Several Japs started swimming for our ship. We sent our whaleboat to pick them up. When our boat got almost to them, the Japs fired at the boat with shells and machine guns. No one got hurt, hut it sure was close. I thought they were gone. Our troops are in plain sight. Look to be about 100 yards from the beach. One tank is down on the beach. Several dead Japs floated by the ship today. This was right close to Saipan. (One end of Saipan was a real high cliff and several .laps would jump off of this high cliff to keep from getting captured, but that would kill them. The water was full of them Boating around out there dead. They would jump off of the cliff, it was a pretty high cliff, into the water, and it killed the\_. That was the purpose I guess.) On patrol duty last night and today..... shot star shells an night. The water is full of dead Japs.

July 11-15: Patrol duty around Saipan. .

July 16-19: Took two ships part the way to Eniwetok. Met another convoy and came back to Saipan with it.

July 21: Fired on Tinian today and tonight. Plane was spotting for us during the day. Dive bombers were bombing Tinian pretty close to us. Boy, they sure tear things loose when they start.

July 22: Our troops landed on Guam, 125 miles from here. I don't think we will get in on that.

July 24: Our first wave of troops landed on Tinian at 7:00 a.m. today. The Norman Scott's bridge was hit, and the Colorado received two hits. We are on patrol about 10 miles out. There were 18 killed and 30 some wounded on Norman Scott.

July 26 Still patrolling off Tinian and Saipan. They are only a couple of miles apart. Can hear the soldiers over the radio talking from one to the other. They talk as if they were in the states practicing. I saw my first cyclone or water spout today. There was a big dark cloud and a streak left it and went an the way down to the water. Where it hit the water, it sent up a big spray. We fired an night on condition watches at scattered targets on Tinian. (We'd patrol up and down the island and every once in a while, we'd fire ashen over in there just to keep them awake.)

July 27: Fired a little at the beach today. We were on patrol during the night.

July 28: Fired this morning with shore fire control party doing spotting for us. Pulled in to 1,000 yards this evening and cut loose with 20's, 40's and 5's. Fired in a bunch of bushes near the beach where there was supposed to be a lot of .laps. Fired a lot during the night.

July 29: In and out today. Left Tinian about 4:00 o'clock this evening. I think we are headed for Eniwetok.

July 31: Arrived Eniwetok at 2:00 p... (We usually went down there for supplies off of supply ships. "

This was also the point that Ensign Pfeifer came to realize that the demands for all of the torpedo fuel, the "pink lady", which was being requested to clean to optics of the Director, were perhaps going somewhere else. Pfeifer was watching the shelling of Saipan and could not understand where all of the alcohol could be going. The Fire Control men were ranging in on their targets, but the Director optics were really quite small, and more than likely they did not need as much of the alcohol as they had been consuming. He casually asked one of the Fire Control men who was going down to the computer how frequently they cleaned the lenses on the Director with the alcohol. The Petty Officer, apparently no knowing why he asked, responded: "You can't clean anything with "pink lady"!" Then Ensign Pfeifer came to an instant understanding that it was going to less than Navy approved use.

Bert Farley remembers a few other actions of his shipmates:

"Crump was the biggest souvenir hunter he had ever seen. There were various dead Japs in the water and Crump tried to get a belt with a gun, Nisewaner called him back. Then Crump went to get a sword, and he got called back again.

Then the Grant used star shells keep Japs off Marines, but the Marines refused to have support at cliffs, we lost so many Marines because they would not let the Grant shell.

Then the Japs jumped and swam towards the ship. Nisewaner sent motor boat with 3 men and guns, after the 2 Japs and then the Japs on shore began firing at the boat as a trap they backed off and Jap shells killed the Japs in water."

## 5.4 Lessons Learned

Hamill, Hunt

Mathieu, CA

Saipan and Tinian were a clear text book example of how to make things work. Although there were many examples as Nisewaner note that improvements could be achieved. The approach Nimitz took by sending Halsey and then Spruance was an attempt to send one group of commanders to fight and then have the returning group think through what were the lessons learned. However there did not seem to be the mind set or even the tools to think through the process at the time. The CIC manual was a clear example of implementing some strategic actions which would have very positive impacts.

The article by Bishop is interesting for it time. Unlike the voices from all the men which now come through clearly and equally, although with different accents and contrasts, the Bishop article talks only about the officers. It is as if the ship had no crew, as if there were just officer corps and they did everything. For example the Bishop article talks about Lt. Gillock who managed the director range finder. One would naturally assume that there were many fire control men involves like Lou Zangerilli, FC 1C, who was experienced and had been in the navy for many years at that time. The fire control systems were key to the destroyers ability to hit targets, it was the full complement of the director optics and the stable platform and the computer.

Again in the Bishop piece it describes Lt Cdr Bland as the "presiding genius" of the CIC. In the case of the Grant at Saipan, the CIC worked with the TF but it was the on shore troops where it failed. Communications was down and the methods and procedures to establish communications and to have trust in what both the Marines and Navy were capable of was just not there. There were no joint exercises and training of the joint forces, it was all being done on the fly. How much of a Genius Bland was may be open to interpretation or as the exaggeration of the writer.

Again in the CIC there were many other men, enlisted men, all doing there part. The Bishop article seems to totally ignore the 90% of the crew who make a ship run. In fact there is no mention of a single CPO, any one of which would be indispensable.

In the Saipan action, the Bishop article indicates the officers as:

Bridge

Medical

#### **Table 1 Officers Mentioned in Saturday Evening Post Article** Name Position Rank Nisewaner, Andy Captain Commander Bland Lt. Commander XO Gilcock Gunnery Lt. Marsh, Jerry Fire Control Ensign CIC Kendall Lt. (jg)

These are the only names mentioned and Nisewaner only once. The article details the assistance the Grant gave the Marines which were brought aboard. In addition it depicts the events which transpired.

Lt.

Lt. (jg)

Saipan was a true strategic victory. As van der Vat recounts the statement by Japanese Vice Admiral Shigeyoshi, commander of their Sixth Fleet<sup>53</sup>:

"Our war was lost with the loss of Saipan.... The loss of Saipan meant [the Americans] could cut off our shipping and attack our homeland and our submarine operations were completely shut out."

If this was the case, then as we go on to Leyte, why did Roosevelt allow MacArthur to take the islands?

But many good lessons were learned. As Hoffman states<sup>54</sup>:

"In considering the tools that attained the US success, naval gunfire looms fort conspicuously. During the pre D-Day bombardment certain factors limited the effectiveness of preparatory fires (one key one was the limited capability of the aerial spotters).. But notwithstanding naval gunfire achieved appreciable results at Saipan. Foremost was the almost complete rupture of enemy communications....Total rounds expended...were 138,391 a weight of over 17,000,000 pounds and there were also 8500 starshells used...."

The Japanese reported that the impact and effect of the US Navy shelling was tremendous. The Navy report after the action states however<sup>55</sup>:

"...In order to properly utilize the weapon (eg naval guns) and to take full advantage of its capabilities its control ashore must be placed in the hands of highly trained and experienced personnel..."

This observation resonates with the frustration that Nisewaner states when trying to knock out enemy locations. He could see them but the Marine command could not. The Marine command viewed naval gunfire as if it were marine artillery. The 5" Director controlled guns were snipe like weapons. The term was well chosen since the Marines had snipers, they knew what a sniper did and the use of the word hopefully resonate with the Marine Corps. However Saipan did have several insights regarding operations of this type which would come back again and again over the next sixty years and more:

- 1. Communications capability was critical. The ability to integrate naval and Marine links and network them together was essential. It was a hodge-podge at Saipan and when it failed to function is cost lives.
- 2. Coordinated command and control across command structures would be critical. The Navy had just adopted the CIC, which would prove itself four months hence but it could

<sup>&</sup>lt;sup>53</sup> see van der Vat, Pacific Campaign, p. 339.

<sup>&</sup>lt;sup>54</sup> Hoffman, Saipan, p. 247.

<sup>&</sup>lt;sup>55</sup> Hoffman, Saipan, p. 248.

and should have been used here, and in coordination with the Marine Corps. The Marines just sent their men out in a melee manner and had them attack. Having a coordinate and mutually understood capability set would have been critical. Again Nisewaner was decades ahead of his peers in seeing through this.

Saipan also sent one more message. The savagery of the Japanese and their determined desire to have no survivors; military of civilian. The death of women, children, the age, left a seared message on the minds of the Grant crew and of all the men involved in this battle. Unlike the simplistic ending to the American and Japanese war of Bywater, where dropping of leaflets on Tokyo would result in surrender, to the men of the battle of Saipan, it would require a lot of blood and time to occupy Japan with the mindset of the Japanese.

However, MacArthur was complaining that Saipan, Tinian and the Navy campaigns, albeit quite successful, were taking away from his desire to capture the Philippines. This would lead to the critical meeting in July 1944 at Pearl with FDR<sup>56</sup>.

# 5.5 Palau

The next step in island hopping for the Navy forces was Palau Islands. Palau is southwest of Guam and just to the east of the Philippines. This was the next step across the Pacific. Nimitz had decided that they must occupy the islands of Peleliu and Angaur in the Palaus<sup>57</sup>. This time the Task Force 38 was headed by Halsey and the Grant was assigned to provide it services to this invasion. The Palau Islands were a craggy Japanese infested land mass with limited strategic value. Both Halsey and General Holland Smith had predicted that Peleliu would become another Tarawa, a blood bath<sup>58</sup>.

The Palau Islands are at the western end of the Caroline chain of islands, close to the Philippines. Babelthuap is the largest and is approximately the size of Guam. The Japanese looked at the Palaus as the "spigot of the oil barrel" and thus it was for them a strategic point<sup>59</sup>. In view of the capture of the Marians which provided strategic air bases and the upcoming Philippines assault which should protect the southern front, the Palaus was again problematic. It was Nimitz who continued to view it as strategic.

Saipan and Tinian were much more strategic and were by this time already in American control and on their way to building up for their strategic air mission. The Palau Islands were coral, overgrown with jungles, hot, with not really any good harbor space or airfield locations. In the map shown below the island of Peleliu is at best a radar site for tracking aircraft coming from the east to the Philippines. However by this time they were all American aircraft.

<sup>&</sup>lt;sup>56</sup> Alexander, Storm Landings, p. 65.

<sup>&</sup>lt;sup>57</sup> see van der Vat, Pacific Campaign, p. 347.

<sup>&</sup>lt;sup>58</sup> Alexander, Storm Landings, p. 105.

<sup>&</sup>lt;sup>59</sup> Alexander, Storm Landings, p. 108.



Figure 56 Palau

The invasion began on the morning of September 15, 1944 and before it ended 8,769 American troops had been killed<sup>60</sup>. Less than 300 of the more than 13,000 Japanese troops survived. A death toll of almost 22,000 men in just a few days of brutal fighting. The island of Peleliu would never be a strategic piece of real estate. It was in many ways a wasted battle. So unlike Saipan and Tinian just weeks earlier.

Nisewaner recalls<sup>61</sup>:

"After the final days of the Tinian invasion the A. W. GRANT sailed with a large group to Majuro Atoll where a task Force was forming for the invasion of Peleliu. This was a "dog eat dog" affair with Peleliu being heavily fortified and the defenders not giving one inch. Again, we were assigned as a Fire Support ship and fired at specific targets ashore."

"The Japanese had a large contingent of troops on the larger island of Babelthaup (not sure of that spelling) to the north of Peleliu and night after night they tried to ferry troops down under cover of darkness to Peleliu but we destroyers were assigned to cover these.. movements and our radar was excellent. That night have gotten a few small boats through but no large barges. Those we could spot and destroy. In about two weeks the island chain was 091"6. During this action we had a few near misses from enemy fire but no direct hits."

<sup>&</sup>lt;sup>60</sup> Ross, Peleliu, p. xi.

<sup>&</sup>lt;sup>61</sup> Nisewaner letter to daughter April 1001.

Oldendorf was in charge of the fire support group in which the Grant was a member. D Day was to be 15 September 1944. On 12 September 1944 Oldendorf who was on the Pennsylvania about 7500 yards off Peleliu, signaled open fire at 0530<sup>62</sup>. The bombardment continued for three days. Peleliu would become one of the bloodiest battles of the Pacific. During the first day the fire support groups had demolished about 300 targets but Oldendorf was disturbed that there had been no counter battery fire from know Japanese artillery locations<sup>63</sup>. Oldendorf had concluded that the Japanese had moved these sites but to where.

Williams provides a good day to day account of the battle:

"Sep 6 Left the Solomons this morning with a good sized force

Sep 12 Arrived at Palau at 5:30 this morning. We screened wagons and cruisers while they fired this morning. Covered demolition squads while they destroyed mine fields this evening. Done a lot of close firing with 5" and 40 mm. Could see our planes drop their bombs and watch until they hit. We had a big shell drop within 200 yards of us and one about 6" dropped within 50 yards of us. Could see rifle fire splash in the water all around us and you could hear it whistling by.

Sep 13 Screened wagons and cruisers all day. Fired harassing fire all night on condition watch.

Sep 15 Started firing on the beach at 8:00 am Troops landed at 8:30 am. The ships and planes really laid down a barrage during that half hour. It sure changed the looks of the beach. Saw one of our planes go down in flames. Fired call fire the rest of the morning. Fired star shells all night on condition watch.

Sep 16 Stayed at General Quarters all day<sup>64</sup>.

Sep 17 Fired a lot today at Jap artillery

Sep 18 Met tanker at sea and refueled

Sep 19 Screened ships at Palau all day. Jap planes over Palau for a short time tonight.

Sep 20 Stood by all day for call fire. Fired a little this morning. Screening at night. Jap planes all over tonight.

Sep 21 Took on ammunition today. Fired star shells tonight.

<sup>&</sup>lt;sup>62</sup> Ross, Peleliu, p. 135-136.

<sup>&</sup>lt;sup>63</sup> Ross, Peleliu, p. 137-138.

 $<sup>^{64}</sup>$  Standing General Quarters all day is a very trying experience. All men are at Battle Stations, and in the heat on the Palaus it was draining. The outside temperature was in excess of 110° F during the peak of the day and the humidity was high. Inside a 5" gun mount the temperature could rise to 125° F and in the boilers, which were running all the time the temperature was well in excess of 135° F.

Sep 22 Fired a lot this evening on trenches and block houses. Plane spotter said he could see Japs coming out of trenches like flies. Fired on condition watch tonight.

Sep 23 Fired on beaches a lot today. Shore fire control party directing fire. Low on ammunition. Jap plane took off from one of the islands tonight. A ship not far from us got a lot of shots at it but it got away. Left tonight to get more ammunition.

Sep 24 Off Babelthaup this morning. About fifty miles from Palau. Filled up with ammunition. Back to Palau tonight. Fired star shell at night.

Sep 25 Hung around today screening. Fired al night on condition watch. Condition watch meant just a small crew and a couple of guns jus in case something happened. We slept at odd times.

Sep 26 Screening all day. Fired on beach all night on condition watch. Jap planes came over at 22:00 Went to General Quarters and opened fire on one twice.

Sep 27 Screened all day. Fired star shells all night on condition watch.

Sep 28 Screened all day and night. About finished here.

Sep 29 Left Palau at 16:00 for the Admiralty Islands."

McGiniss remembers<sup>65</sup>:

"Used the 40 mm guns and we used to shoot aircraft which was near the ship, we were also called to provide ground support and also raked the shore many times with 40 mm guns. the 40 mm was a 6 man gun crew; train, fire, store..."

The invasion to put Williams Diary in context included the following flag officers<sup>66</sup>:

- 1. Vice Admiral Wilkinson
- 2. Major General Julian Smith
- 3. Major General Rupertus
- 4. Rear Admiral Fort on USS Mount McKinley
- 5. General Geiger
- 6. Rear Admiral Blandy on USS Fremont
- 7. General Mueller
- 8. Rear Admiral Oldendorf on the USS Louisville
- 9. Rear Admiral Ainsworth
- 10. Rear Admiral Kingman
- 11. Rear Admiral Ofstie

<sup>&</sup>lt;sup>65</sup> From oral history with McGiness 20 January 207 Orlando Florida.

<sup>&</sup>lt;sup>66</sup> see Morison, Leyte, p. 34.

- 12. Rear Admiral William Sample
- 13. Admiral Halsey arrive on 17 September.

The Grant was under the Oldendorf fire support group of five battleships, five heavy cruisers, three light cruisers and fourteen destroyers. It is interesting to note from the Williams Diary that on the 17<sup>th</sup> with the Halsey visit that there was no significant change in their operations. It is also interesting to note the overhead applied to this operation.

Oldendorf's plan was simple; ship fire then follow by aircraft and repeat, He had the battleships and cruisers commence firing at 05:30 on the 12<sup>th</sup> September. The shells from the battleships hit the island with tremendous force. Each hit blew out a ditch, no a true excavation, of some 40-50' in diameter and 20-30' deep. The impact of a shell could be felt for a mile or more. There were hundreds of such shells every hour landing on the island, a sense of a rolling earthquake. The trees and all other vegetation were cut like being sliced by a gigantic weed whacker, slashing tree tops, trunks, ground cover, creating a flow of dust and blown apart coral. This continued for three days<sup>67</sup>.

North of Peleliu was the larger atoll of Babelthaup. Around all the islands were sharp and deadly coral reefs. Peleliu had the least reef and was thus one selected. The Navy had deployed UDT, underwater demolition teams, now called SEALS. They did some softening of the beaches and provided some limited intelligence of the problems facing the landing parties. No one really understood the terrain. It was not until the naval bombardment had progressed and the vegetation having been blown away that the severity of the terrain was fully appreciated. The naval forces, as seen in the Williams Diary, spend day after day bombarding the island. Still the Japanese forces held out. They also remained very deadly.

The first day of fighting there was little naval gun support. Most of the firing was done by Naval aircraft flown from the small carriers which had been part of the force. This was a tactic which had gained success in prior landings. In addition this is seen in the Williams Diary because he notes the many aircraft launched to both drive away Jap aircraft as well as attack land locations.

The first night and second day of the battle were the worst for the Marines. As Morison states there were three destroyers along with the Honolulu which provided star shell support for the troops. The Grant was one of those ships.

The firing was intense day after day and hour after hour. A seaman would almost become immune when off his station. You almost got to the point when off station you could sleep in your bunk under the 5" guns as they were continuously firing. A few New York sailors would remark that "it was like sleeping next to the El ( the elevated train then still operational in New York City) in the summer, hot, noisy, and somebody always looking in at yuh..." Going on an off General Quarters was more than practice because the Japs had aircraft at their base north of the island and they still could manage to get a plane through now and then.

<sup>&</sup>lt;sup>67</sup> See Ross, Peleliu, pp. 135-140.

On the southern side of Peleliu there was a small airfield which was controlled in short order. But on the west side north of the airfield was the Umurbrogol Ridge, a warren of coal tunnels which gave the Japs protection and mobility. Naval bombardment just could not effect these tunnels. On 27 September the Marines opened up a 1,000 foot long tunnel and had to used multiple flame throwers to quell the Japanese. Thousands were killed in that one action.

In a post war statement by Oldendorf, he said<sup>68</sup>:

" If military leaders, and that included Navy brass, were gifted with the same accuracy of foresight that they are with hindsight, then the assault on Peleliu should never have been attempted."

Peleliu cost 1300 Marines killed and about 5500 wounded. The Japanese lost over 11000 and only 19 Japanese prisoners were taken<sup>69</sup>. What was to be a one week battle lasted three months. The Marines suffered large casualties and got bogged down for much longer than anticipated. But MacArthur was calling.

Unbeknownst to the Grant and its crew, Halsey and his fleet were bombarding Samar one of the Philippine islands in anticipation of the upcoming invasion. MacArthur's original strategy was to land on Mindanao which is the southern most island and then work their way up. Halsey had found that there was little if any resistance on Samar, which was east of Leyte and that this may present an opportunity to quicken things up a bit. He thought through the strategy options and then thought that better than Mindanao and up, go to Leyte and divide, take the Philippine by grabbing its throat at Leyte, and split the Japanese in half. He prepared a recommendation and the sent it up to Nimitz and then to the JCS. MacArthur was incommunicado but Gen Sutherland, his Cardinal Richelieu like Chief of Staff agreed and thus on the 14<sup>th</sup> of September, the next step being Leyte, was approved<sup>70</sup>.

The Grant thus had to be relieved on 28 September since it had to prepare for bigger fish, the invasion of Leyte and their meeting with destiny. It sailed back to Manus.

<sup>&</sup>lt;sup>68</sup> Ross, Peleliu, p. 139.

<sup>&</sup>lt;sup>69</sup> Moran & Rottman, Peleliu, p. 89.

<sup>&</sup>lt;sup>70</sup> Ross, Peleliu, 141.

## 6 SURIGAO STRAIGHTS: THE REAL ENEMY

Shakespeare, Henry V, St Crispin's Day, October 25, 1415, Battle of Agincourt

We few, we happy few, we band of brothers; For he today that sheds his blood with me Shall be my brother; be he ne'er so vile, This day shall gentle his condition. And gentlemen in England, now abed, Shall think themselves accursed they were not here; And hold their manhoods cheap whiles any speaks That fought with us upon Saint Crispin's day.

The Battle of Leyte Gulf, and especially that of the Surigao Straight, is one of the epic battles of all Naval history. It involved four Japanese Admirals and their fleets and almost 1,000 American and Australian vessels. This Chapter looks at the battle from the perspective of the Grant, and thus it deals with Surigao only and leaves the battle of Samar and the remainder of the overall battle to other historians and story tellers. The Grant was the only ship hit during the Battle of Surigao and there have been many stories told and retold which have been based upon limited facts. In this Chapter we rely heavily on the deck logs of the Grant and the first hand reports of the officers and crew of the Grant and we attempt to corroborate as best as one can all of the facts presented.

There are two issues which are focused on in the Chapter; (i) the time from 03:51 until 04:09 on the morning of 25 October, 1944, and (ii) the statements by others after that time which help clarify what may have truly happened. What we do know is that the American Fleet under Rear Admiral Oldendorf executed a brilliant Naval battle which sank a good portion of the Japanese fleet. What we also know is that the Grant was the only ship hit and the only ship suffering dramatic losses as a result of both Japanese and American fire, particularly fire from the Light Cruiser Denver. Finally what we know is that Captain Nisewaner received the Navy Cross for his bravery and dedication to his men and ship, however the Captain of the Denver, Captain Bledsoe, to become Rear Admiral Bledsoe, also received the Navy Cross for the same engagement. It was Bledsoe who ordered the firing on the Grant despites the Denver's CIC warning him it may be a friendly.

We also know that in 1960, Admiral Kinkaid in an oral history to the Columbia University theologian, one Dr. Mason, accused Captain Nisewaner of a crime under the UCMJ Article 92, failure to obey a command, as the cause for the friendly fire on the Grant. Kinkaid was in control of his faculties at the time and the Grant was under his command as part of the 7<sup>th</sup> Fleet. He had to approve Nisewaner's Navy Cross, so one wonders why he said what he said, what influenced him, an Admiral of his stature does not utter such defamatory remarks without having justification. If it were Nimitz, it was Nimitz's policy to tell only the facts, and let history decide, and one may wonder did Kinkaid think this was a fact, and if so what was the basis of this belief.

This Chapter looks at the Grant during this time and using the personal records of the officers and crew tries to understand what happened and why. The Grant took 11 shells from the

Japanese Destroyer Shigure and 13 shells from the Denver. The Shigure shells were 4.5" shells whereas the Denver shells were 6". If in fact one were to count the total Denver shells retrieved both in Surigao and when finally pumped out at Manus the Denver shells would be almost three times the reported number. Fortunately they were armor piercing shells and they did not explode on impact with the 3/8<sup>th</sup> inch hull of the Grant. Many of the crew vividly remember retrieving the Denver yellow tipped armor piercing shells with USS Denver painted on their surface. This chapter recounts the details of those eighteen minutes and its aftermath. The only two commanding officers to get a Navy Cross for the battle were Nisewaner of the Grant and Bledsoe of the Denver. Consider what happened in the hours following the battle, one wonders what the heroic commanding officers on the Samar fight had achieved. This start difference raises the questions again and again, especially when combined with Kinkaid's defamation.

# 6.1 Prelude

MacArthur was determined to return to the Philippines. He had convinced Roosevelt, in a subtle but threatening way, that if the US did not return it would become an issue in the 1944 Presidential Campaign. The Navy, in the view of Admiral King wanted to sidestep the Philippines and go for Formosa. MacArthur won the argument.

MacArthur was supported by Admiral Kinkaid, who headed the 7<sup>th</sup> Fleet, and as such reported to MacArthur directly. It was Kinkaid who would have the naval resources required for the landing.

In contrast, Halsey, who had the 3<sup>rd</sup> Fleet reported to Nimitz who in turn reported to King. In contrast MacArthur reported to Marshall. Both King and Marshall eventually reported to Roosevelt. Halsey was assigned to protect the landing and then at his discretion find and destroy the Japanese fleet, which still was a threat.

On October 20, 1944 MacArthur landed on Leyte, one of the middle islands in the Philippines. This was the day the General made his statement of having returned to the islands. The Grant was in a position to view that return. In fact, many of the crew were looking at the General as he landed. However, some of the crew were less than enthusiastic and decided to look elsewhere. The reasons for this seem hidden in history, in fact some of the dissidents amongst the Grant crew do not recall why they participated in this mild form of protest. MacArthur could not notice, since his attention was always in the photographers who were recording the deed.

On that day, the harbor on the west side of Leyte was amass with ships, the 7<sup>th</sup> Fleet supporting the landing, landing craft, and the 3<sup>rd</sup> Fleet watching a form of guard duty. There were hundreds and hundreds of ships, and if one were close to the shore the ships appeared to go on forever. It was a sea of ships, destroyers, cruisers, battleships, carriers, support vessels, ships from everywhere, and men landing on the shore prepared to battle the Japanese on Leyte and then to move from island to regain the Philippines.

After the landing on the 20<sup>th</sup> both Halsey and Kinkaid remained off Leyte to see the remaining elements off load and to secure the positions against Japanese attack. Leyte was bounded on the south by the Surigao Straight and below then the island of Mindanao, and to the north by the San Bernadino Straight and then the island of Luzon. The MacArthur strategy was to cut into the

middle of the Philippines and work out, eventually gaining a foothold in the main northern island then recapture the capital.

However on the 22<sup>nd</sup> intelligence arrived indicating that a fleet of the Japanese main forces was heading towards the Philippines. The submarines Darter and Dace sighted the fleet at that time west of the Philippines. Halsey however had orders from Nimitz to seek out and destroy the enemy, and he viewed these orders to supersede his support role for MacArthur and in turn Kinkaid. Kinkaid was concerned but there was a major communications problem between Halsey and Kinkaid, the only common leader was the President. This would prove the undoing of many in the next few days.

Kinkaid was a Vice Admiral at the time. He had been born in Hanover, New Hampshire in 1888 and graduated from Annapolis in 1908. Kinkaid had not done well academically at Annapolis and thus his promotion chances were generally less than most of his peers. He advanced but at a slower pace and he was viewed as a plodder rather than a strategist such as Nimitz or a warrior such as Halsey. As such he was an ideal match for what MacArthur wanted, namely someone who would be in MacArthur's chain of command and not that of the NCO, Admiral King. Kinkaid was ideal for this position. He became Commander of the 7<sup>th</sup> Fleet in November 1943. Ironically Kinkaid's brother-in-law was Admiral Kimmel who was the Admiral in charge of Pearl Harbor during the attack and who was subsequently tried at Court Marshal.

Kinkaid had control over various groups in the 7<sup>th</sup> Fleet, almost 800 ships and vessels as part of the landing and support of the Philippines operations. One of these groups was under Rear Admiral Jesse Oldendorf.

Jesse Bartlett "Oley" Oldendorf born on <u>16 February 1887</u>) was at that time a Rear <u>Admiral</u>. He had graduated from the <u>United States Naval Academy</u> in <u>1909</u>, he had served on <u>cruisers</u> and <u>destroyers</u> before <u>World War I</u>, then after assignments on a <u>freighter</u> and a transport, was <u>engineering officer</u> on the <u>USS Seattle</u>, and <u>executive officer</u> of the transport <u>Patricia</u>. This was followed by onshore assignments and a stint as <u>flag secretary</u> of the <u>Special Service</u> <u>Squadron</u>.

Oldendorf's first command was the destroyer <u>*Decatur* (DD-341)</u>, from <u>1922</u> to <u>1927</u>. From <u>1939</u> to August <u>1941</u> he commanded the <u>*Houston*</u>, then joined the staff of the <u>Naval War College</u>.

Upon US entry into <u>World War II</u>, he was promoted to <u>Rear Admiral</u> and initially assigned to the <u>Aruba-Curaçao</u> sector of the <u>Caribbean</u>.

In August 1942 he was moved to the <u>Trinidad</u> sector, with <u>anti-submarine warfare</u> as his primary activity. Then from May 1943 until to December <u>1943</u> he commanded Western Atlantic escorts from <u>Argentia</u>, <u>Newfoundland</u>. Admiral Oldendorf shifted to the Pacific in January <u>1944</u>, commanding <u>Cruiser Division 4</u> from <u>Louisville (CA-28)</u>, and supporting landings in the <u>Marshalls</u>, <u>Palaus</u>, <u>Marianas</u>, and <u>Leyte</u>. In October 1944 he commanded the group supporting the invasion and patrolling the Surigao Straight.<sup>71</sup> Unlike Kinkaid, Oldendorf was a quick thinker, and just one year younger than Kinkaid he could see how to use his attack forces to repel the Japanese attack.

## 6.2 *The People and the Organization*

The forces assembled under Kinkaid included both the landing forces and a modicum of defense forces. The true fast carrier defense were under Halsey and the 5<sup>th</sup> fleet. Halsey had over 200 of

<sup>&</sup>lt;sup>71</sup> Oldendorf was promoted to <u>Vice Admiral</u> in December, commanded battleships in the landings at <u>Lingayen</u>, and was wounded during the <u>Battle of Okinawa</u> while on the <u>Pennsylvania (BB-38)</u>.

the best ships fit and ready for fighting and he had all the carriers. Kinkaid had small landing support carriers which were for the most part limited to assisting landing efforts with near shore support and did not have the capability of the fleet carriers. In addition Kinkaid had the old battleships many of which had been rebuilt since their attack at Pearl Harbor in December 1941.

The Kinkaid organization appears as below. Rear Admiral Thomas Sprague was positioned off Leyte supporting the landing efforts with his small carrier support group. Oldendorf was assigned to secure the Surigao Straight with his battleships, cruisers and destroyers.



Figure 57 Kinkaid's 7th Fleet Organization

Kinkaid's organization on the staff side was considerable. The key members of this staff are shown below. His Chief of Staff was Commodore Val Schaeffer. Schaeffer was most likely a Captain and he was brevetted to the rank of Commodore, a temporary rank equivalent to a one star or Brigadier General. Schaeffer will be a key person in the ongoing drama of the Grant and the Denver.



Figure 58 Kinkaid's Staff

The actual assembly of forces for the battle at Surigao was as shown in the Figure below. Oldendorf had overwhelming force in battleships, cruisers, and destroyers as well as PT boats in support. The Denver reported to Rear Adm Hayler. The Grant was part of Capt. Smoot's DESRON 56. DESRON 56 would have the most perilous role in the attack and in fact it was the last three destroyer attacks by the Newcomb, Leary and Grant which would be the most risk, and finally it was the Grant as the last of the last which would have the maximum exposure to enemy fire. The plan going into the attack was clear to all of the commanding officers, the plan was stated quite simply:

PT boats would engage the enemy once the enemy forces entered the straight.

The destroyers would attack from the sides, namely DESRONs 54 and 24 and then DESRON 56 would attack down the middle.

Once the destroyers had cleared the OTC, the officer in tactical command, namely Adm Oldendorf, would issue the command to fire upon targetd enemy ships.<sup>72</sup>

Since the engagement would be at night, sightings would require radar, star shells would not be employed, and clear unambiguous targets of enemy vessels would be required before firing.

These are the simple rules of engagement which Oldendorf had issued.

<sup>&</sup>lt;sup>72</sup> Officer in Tactical Command (DOD) In maritime usage, the senior officer present eligible to assume command, or the officer to whom the senior officer has delegated tactical command. Also called OTC.



Figure 59 Oldendorf's Fire Support Group TG 77.2

However as will be seen, the Grant, at the end of the end of the destroyer attacks, was engaged with both Japanese fire as well as overwhelming friendly fire solely from the Denver. The question will be why, and given the statements of Kinkaid, who said what to whom and why?

## 6.3 The Forces

The Japanese had four elements in the attack on Leyte. Two were to the south, one was thru San Bernadino to the north and one was a decoy to the north east. The latter one was to lure Halsey away and it performed that function well. It is not clear what the Japanese were trying to do to the south, since it was fragmented into two small groups and they were to face massive American and Australian naval forces under Oldendorf. However, the one going thru San Bernadino would become the true problem latter that day on the 25<sup>th</sup> of October.

To the south the first fleet approaching was under Nishimura. It consisted of the following ships and their armament.

Ship	Туре	Sunk	Armament
Yamagumo	DD	sunk	6 - 5", 28 25mm, 4 13mm
Asagumo	DD	sunk	6 - 5", 28 25mm, 4 13mm
Michishio	DD	sunk	6 - 5", 28 25mm, 4 13mm
Shigure	DD	damaged	5 - 5", 21 25mm, 4 13mm
Fuso	BB	3:09:00	12 14", 14 6", 8 5", 37 25mm
Yamashiro	BB	3:25:00	12 14", 14 6", 8 5", 37 25mm
Mogami	CA	3:51:00	10 8", 8 5", 50 25mm

#### Table 2 Japanese Armamament by Ship

The second fleet behind Nishimura was Shima's fleet comprised of the following:

Table 5 Japanese sinp by type and Disposition				
Ship	Туре	Sunk	Armament	
Nachi	CA	No	10 8", 8 5", 50 25mm	
Ashigara	CA	No	10 8", 8 5", 50 25mm	
Abukuma	CL	No	10 8", 8 5", 50 25mm	
Akebono	DD	No	6 5", 28 25mm, 4 13mm	
Kasumi	DD	No	6 5", 28 25mm, 4 13mm	
Shiranuhi	DD	No	6 5", 28 25mm, 4 13mm	
Wakaba	DD	No	6 5", 28 25mm, 4 13mm	
Hatsushimo	DD	No	6 5", 28 25mm, 4 13mm	
Hatshuharu	DD	No	6 5", 28 25mm, 4 13mm	

#### Table 3 Japanese ship by type and Disposition

Shima did not enter the Strait until Nishimura was already fatally hit and upon his assessment of the scale of the damage he quickly turned and fled. Thus the second set of ships as accounted for by Shim played little if any role in the main battle.

The forces available to Oldendorf included the following:

<u>Left Flank</u> R Adm Oldendorf Chief Staff Cpt Richard Bates

**Heavy Cruisers** 

Louisville Portland Minneapolis

**Light Cruisers** 

*R Adm Hayley* Denver California

#### Sec 1 DESRON 56

Capt Smoot Newcomb Richard P Leary Albert W Grant

#### Sec 2 DESDIV 112

Capt Conley Robinson Halford Bryant

#### Sec 3

*Cdr Boulware* Heywood L Edwards Bennion Leutze <u>Battle Line</u> R Adm Weyler

Battleships Mississippi Maryland West Virginia Tennessee California Pennsylvania

DESDIV X Ray

CDR Hubbard Claxton Cony Thorn Aulick Sigourney Welles <u>Right Flank</u> R Adm Berkey

Light Cruisers Pheonix Boise

Heavy Cruiser HMAS Shropshire

#### **DESRON 24**

Capt McManes Hutchins Daly Bache HMAS Arunta Killen Beale

#### **DESRON 54**

Capt Coward Remey McGowan Melvin Mertz

#### **DESDIV 108**

CDR Phillips McDermutt Monssen McNair

This was to be a clear battle between the limited forces of the Nishimura fleet and the overwhelming forces under Oldendorf. This was also a battle which would test the old tactic of crossing the "T" with the battle line composed of the older battle ships and the cruisers and the new and innovative approach of using the destroyers not just to "soften" up the enemy but to seek to destroy them. This was to be a battle wherein the use of the CIC both at the senior command and the tactical command levels would be tested. With the exception of the Denver is worked superbly.

## 6.4 The Events of the October 25, 1944

The following is a recount on a minute by minute basis of the events on the early morning of 25 October 1944. These are based upon an agglomeration of historical records, first hand accounts and the works, which have been recorded since that time.

Oldendorf had been ordered to have his forces defend the Surigao Strait on the southern side of Leyte. Nishimura's forces were heading directly for the strait and behind him and coming from the north was Shima's forces. The main body led by Kurita was heading to the north side of Leyte through the San Bernadino Strait. That force would cause havoc latter in the day on the 25<sup>th</sup>. A small fleet led by Ozawa was a decoy, which would entangle Halsey in one of his biggest mistakes, leaving the body of Kinkaid's forces to face Kurita off Samar Island, which lies to the east of Leyte.

The evening of the 24<sup>th</sup> was hot but initially clear. As midnight approached there was an overcast and some rain, the air was thick and the winds were light. The Surigao Strait was dark, in fact pitch black. Oldendorf assembled his forces in a classic formation, the six old battleships to the east, the farthest from the anticipated Japanese fleet, then the cruisers in front of the battleships, and then the destroyers as that flexible and distributed attack force as developed by Burke. The PT boats were waiting like mosquitoes to attack, with their fast speed and few torpedoes, they could pose a threat if there had been better vision. Unlike the destroyer torpedoes which had sophisticated directors for targeting the PT boats were ate best aim and fire, they were brave little boats which could be useful in certain circumstances but the darkness of this night would limit their contribution, the sophistication of the destroyer would be critical.

Oldendorf knew about Nishimura and he also knew that Shima and Kurita were out there as well. He had no idea as to how many enemy ships his forces would be facing. He was low on ammunition, at least twenty percent below what he should have had, and his shells were not all armor piercing, since he had been bombarding the shore and the shells he had were for the shore bombardment, not piercing the hulls of Japanese battleships. He was concerned that he would not have enough in the event of a prolonged battle. He had been advised of the reports from the submarines Darter and Dace, which had been monitoring some of the Japanese fleet, they were following them through the strait north of Palawan, one of the islands west of Leyte. However this was a limited sighting and both subs had even attacked the Japanese forces. Thus the enemy knew that they attack was not hidden and their arrival would be anticipated.



Figure 60 Battle Surigao Strait (From US Govt Documents)

The time from 03:51 through 04:09 are the critical periods of time. There are several key factors, which also must be recalled. Specifically:

- 1. Oldendorf had prepared a detailed battle plan. This included the use of the "T" formation and the use of destroyers in a swarm" like manner, which extended the strategies developed by Arleigh Burke eighteen month earlier. The use of all elements; destroyers, battleships and cruisers, required a clear understanding of who was to be where and when.
- 2. The CIC had evolved into a well accepted and fully operations part of any battle. The CIC was not the hub of any command and control effort and using the battle plan, using the radar and other external methods for target positioning, and using the plotting board techniques perfected by Burke and Wylie and his fellow destroyer men, of which Grant had been a part, the risk of friendly fire threats were to be minimized and hopefully eliminated.
- 3. The OTC, the Officer in Tactical Command, in the case of the Denver it was Oldendorf. The OTC was to issue the command to fire and to do so in accord with the established battle plan. The OTC command came at 03:51.
- 4. The radar systems were evolving and many of the battle line ships had Mark 8 systems, some like the Denver had older systems, the Mark 3. This would also cause a problem.

The Mark 8 are higher frequency and has better target resolution, clutter control, and target ranging. The radar officer in the CIC would or should have known this.

The details now follow in six Phases<sup>73</sup>:

### 6.4.1 Phase I: Early Warning and Swarm Attack by PT Boats

Phase I is the entry and early intelligence phase. Here the PT boats to the west make sittings, make some futile attempts of attack but are primarily intelligence gathering units. We argue that contrary to many other authors who dismiss the PT boat as an attack tool, in the case of Surigao it is a excellent intelligence tool.

1:00 Nishimura advises Kurita at San Bernadino and Shima who was 35 to 40 miles astern that he would pass Panon at 01:30. This meant that he was soon to enter the strait. The island of Mindanao was to his south. He was hoping for cover of night. He was on the battleship Yamashiro.

1:07 PT 523 reports star shell from Nishimura 10 miles west Panon. The Japanese fire a shell to attempt to get visuals of the battle field. The Americans had more effective radar in this battle and thus had limited if no need for the star shells.

2:05 PT 134 fires at Nishimura force near Panon. This is the first contact between the Americans and the Japanese.

2:06 Captain Coward goes to General Quarters with DESRON 54. This will be the first destroyer squadron to attack. PT 490 fires torpedoes at leading Japanese destroyer and PT 491 fires at others. The PT boats were not successful in their attacks.

2:25 PT 327 sites Nishimura and his fleet and reports. Other Japanese boats are sighted by the PTs.

#### 6.4.2 Phase II: Swarm Attack by Destroyers

Phase II is the beginning of the swarm attacks. The destroyers are working in total darkness. The Americans did not want to use star shells for lighting and relied solely upon their radar. The SG search radar was used and the Mark 4 radar on the destroyers for linking into the fire control system.

<sup>&</sup>lt;sup>73</sup> We take this data from a variety of sources as referred to in the references as well as over two dozen interviews with the men on the ships as well as from their personal records, and Navy Battle Reports. These are summarized in the author's work, DD 649, to be published but available in pre print form from the author. In addition the work is from the reports as presented in Morison; Karig; Hoyt; Sauer; Cutler; Freidman; Wilmott; Hamill and his assessment of the Denver Log; Nisewaner and multiple communications; and Stewart. We have tried to create a consistent set of data and when there was a conflict we relied upon the Captain and XO of the Grant, namely Nisewaner and Hamill. As is all too frequent, secondary authors using secondary reports have frequently failed to present accurate or even consistent data.

2:30 DESRON 54 starts moving. DESRON 54, with Capt Coward, starts run. Oldendorf sounds GQ for all his group.

2:40 DESRON 54 sites Japanese at 18 miles and notification of the Japanese being located is forwarded.

2:44 First Contact with enemy, Battle Line increases speed.

2:45 DESRON 54 sites Japanese at 15 miles, ( at this point each 5 min. is 3 miles), speed 30 mph or 25 knots. DESRON 54 sends estimate of seven ships; 2 Battleships 1 Heavy Cruiser 4 Destroyers.

2:54 Remey et al detect Japanese to south at 7,500 yards

2:56 Shigure sees DESRON 54 at 4.3 miles.....Phillips picks up Japanese at 29,700 yards on radar. Shigure sees destroyers. Shigure alerts Japanese fleet of DESRON 54.

2:57 DESRON 54 Coward's fires torpedoes Coward sends message to take first

2:58 DESRON 54 Melvin sites Nishimura's ships at 12,800 yards.

2:59 DESRON 54 fires remaining torpedoes. Destroyers Remey, McGowan, Monssen launch torpedoes at the oncoming fleet.

3:00 Destroyer McGowan begins attack on Fuso. Other Destroyers begin attack.

3:04 West Virginia's Mark 8 radar in its director picks up Japanese at 42,000 yds

3:05 DESRON 54 fired upon by 5" shells from Nishimura

3:08 DESRON 54 sees fire from target location

3:09 Fuso is hit by 2 torpedoes. The destroyers Monssen & McDermut fire torpedoes at Fuso. Fuso hits from Melvin et al 510 sec at 15 yds per sec, 7,650 yds Monssen and McDermut fire torpedoes Torpedo from the destroyer Melvin hits Fuso.

3:11 The destroyers McDermut and Monssen launch their torpedoes .

3:12 Searchlight flashes from south.

3:15 PT 134 torpedoes off Binit Point, no effects.

3:16 PT 137 fires torpedoes hitting radio room of light cruiser Abukuma

3:17 Australian destroyer Arunta is ordered to attack.

3:19 Yamagumo hit by torpedo from destroyer McDermut. The Fuso is also torpedoed .

3:20 Torpedo from destroyer Monssen hits Nishamura flagship Yamashiro

3:23 The Australian destroyer Arunta fires at Shigure in DESRON 24

3:25 DESRON 24 Killen launches 5 torpedoes at Yamashiro range 8,700 yards. Yamashiro hit by one or two torpedoes

3:30 Nishimura sends message after Michishio and Asagumo are disabled. Oldendorf gets message from PT boats sent at 0130 DESRON 54 McManes and ship DD Hutchins fires 5 torpedoes each, 15 total

3:33 Wheeler CIC radar contact 33,000 yds

3:35 DESRON 56 ordered to commence attack on the Japanese fleet. The destroyers are in three sections.

3:40 DESRON 24 fires on escaping Japanese destroyers Michishio and Asagumo McManess fires torpedoes on Michishio and Asagumo

3:45 DESRON 56 Conley reaches firing area

3:49 Admiral Berkey orders DESRON 24 to retire.

3:50 The Yamashiro and possibly the destroyers Moganmi and Shigure commence fire upon DESRON 56

## 6.4.3 Phase III: Battle Line Commences Firing

In Phase II the true action begins. DESRON 56 under Smoot begins its run. Again radar, especially the SG radars and the Mark radars on the battleships and cruisers were monitoring each destroyer on they plotting boards in each of their CICs. In addition they all were plugged in the TBS, which was active for all ships in the attack. Thus each CIC and in turn each ship captain was aware of the situation in the field of attack.

3:51 This is the beginning of the 18 minute period of activity on the Grant. The Grant, Leary and Newcomb were proceeding at 200° T at 27 knots, 31 mph or 45 feet per second or 15 yards per second. The ships in DESRON 56 were separated by 300 yards, or twenty seconds in time. The Grant was last in a column of three; Newcomb, Leary and then Grant. They were in the process of attacking the Yamashiro. At this time, Oldendorf, as OTC (Officer in Tactical Command), orders his cruisers to open fire at nearest target at 15,600 yards. Denver starts firing at alleged range of 15,800. Cruisers Louisville and Boise commence firing. Japanese open fire on Conley of DESRON 56. Total 3,100 shells fired. The Boise and Phoenix commence firing Yamiashiro was 22,800 from Battle line and 15,000 from Louisville, Oldendorf command as OTC to open fire 3:52 Phoenix and Boise start firing at range of 16,600 yards but Yamashiro moving at 30+ knots, 15 yards per sec, thus at time Denver fired it should have been at 17,700 yards not 15,800 yards. West Virginia fires at range 22,400 yards.

3:53 Weyler as OTC of his Battle Line, namely all the battleships, orders open fire at 22,800 yards, Battle line of the battleships appears to be 7,000 yards behind cruisers. Louisville and Boise also commence firing. Mogami hit by 2 shells. Radar contact 22,600 yds 20 sec 10,000 yds? West Virginia is the first battleship to open with its 16" guns.

3:54 DESRON 56 Conly commences firing torpedoes, all miss at 8300 to 9000 yards. Conley section No 2 fires 15 torpedoes at 8400-9000 yards. DESRON 56 Smoot commences torpedo firing.

3:55 Tennessee and California fire and get 69 and 63 rounds 14 " Armor Piercing Shells respectively. Mogami launches 4 torpedoes at 25,000 yards to Battleships and at 17,000 yards to Cruisers. Tennessee and California open fire.

3:56 Australian cruiser Shropshire fires on the oncoming Japanese fleet.

3:57 DESRON 56 Boulware fires at 7,800-8,000 yards at Shigure and Yamashiro. Two CL stop firing. Mississippi and Pennsylvania start to fire.

3:58 DESRON 24 Hutchins torpedoes hit Michishio and sinks immediately. DESRON 56 Sec No 3 fires at 7800-8000 yards and changes course to 270° T, going now due West.

3:59 Maryland started firing. Yamashiro turns left.

4:00 DESRON 56 Smoot evaluates radar via the CIC on the Newcomb to make certain it is the enemy and NOT Coward. Nachi passes floating section of Fuso. Shigure skipper begins to withdraw.

4:01 Yamashiro fires torpedoes at destroyers.

4:02 Oldendorf has Battle Line realign west. Mogami hit by Portland destroying bridge. After Mogami is hit the Battle Line ordered to realign.

4:04 DESRON 56 Smoot launches 15 torpedoes at 6200 yards to Yamashiro, five from each of the three destroyers; Newcomb, Leary, Grant. The Battle Line realigned at 19,700 range then the Grant, Newcomb and Leary fire. At this time the Denver action report indicates a report of a shift in their firing: *"Main Battery cease firing- shift target 165 T range 8000 yards"* 

4:05 The Denver Captain receives a reply from the Denver CIC, which corrects the announced target bearing to "Main battery director on target but target bears 172 T"
4:06 The Denver captain, Captain Bledsoe, orders firing at what he perceives to be target despite CIC reports to the contrary with the command "*Main battery commence firing, 15 sec salvos full rudder control.*" In the late 1990s Hamill writes his memoirs while at sea<sup>74</sup>. In this document Hamill states:

"....an ex Navy man who seeing our reunion sign in Ormand Beach at the hotel where we met in 1992, joined us and announced that he had been on DENVER the night we were hit. He reported having heard an exchange between the Captain on the bridge and Exec in CIC. DENVER's Captain (Bledsoe) on his bridge PPI Scope had spotted pips, which appeared to be destroyers, leaving the enemy formation in torpedo attack mode and headed on parallel track.

He (Bledsoe) told the Exec to take them under fire. The Exec opined that these were "Friendly" ships and that he would have to verify the IFF...... The Captain, according to our friendly sailor, shouted at the Exec. "Open fire that's an order!" The rest is history. ...... Andy Nisewaner had been told that DENVER's skipper (Captain A. M. Bledsoe) and Admiral Kinkaid's Chief of Staff (Commodore Val Schaeffer) had been class mates, close friends and possibly roommates at the Naval Academy.

Thus we could easily be looking at a cover up by Kinkaid's Chief of Staff. Additionally, there's something wrong with a skipper who will fire one unauthorized shell seconds before another ship is to open fire so as to have the "honor" ... of firing the opening gun of the Philippine Campaign."

Captain Nisewaner is awarded the Navy Cross for his actions in Surigao.

However Capt Bledsoe is also awarded the Navy Cross at the same time for:

"The Navy Cross is presented to Albert MacQueen Bledsoe, Captain, U.S. Navy, for extraordinary heroism as Commanding Officer of the cruiser, U.S.S. Denver, in her action against the enemy from 17 to 29 October 1944. During this time the U.S.S. Denver supported the landing of our forces on Dinagat, Suluan and Leyte Islands, and on <u>24</u> <u>October participated in the defense of Leyte Gulf, which resulted in sinking of at least</u> <u>one enemy battleship, a cruiser and six destroyers.</u> Through his professional skill and capable leadership, his vessel performed all missions assigned to her in a highly efficient manner and contributed materially to our success. His conduct throughout was in keeping with the highest traditions of the Navy of the United States."

It is not at all clear what Bledsoe did in the Denver to sink the ships. In fact, the entire Japanese fleet under Nishimura consisted of two old battle ships, one cruiser and only four destroyers. It was clear that Newcomb and Grant got the battleship, and thus crediting Bledsoe with this is not only a fallacy but commences the alleged cover-up<sup>75</sup>.

<sup>&</sup>lt;sup>74</sup> See Hamill memoirs.

<sup>&</sup>lt;sup>75</sup> In the Naval Institute book, PACIFIC WAR REMEMBERED, An Oral History Collection by John T. Mason Jr., Mr. Mason, a holder of a doctorate in theology, holds himself out as an oral historian, and in his view the oral historian merely records what someone says and then reports its verbatim. Mason's view is akin to what a Journalist does, but

#### 6.4.4 Phase IV: Grant Takes Hits

The Grant is now hit. The first hits on the rear deck are from Japanese shells. However based upon crew reports the primary damage and deaths were due to the Denver hits. Fortunately the Denver was using Armor Piercing Shells, which went through the  $5/8^{th}$  inch thick hull. The main damage was a result of the Denver 6" shells hitting the high pressure steam lines and literally melting the Number 1 boiler room crew in their place. Oral interviews from the one surviving crewman attests to this fact. It is also essential to note that Bledsoe as well as all others involved were on TBS and the CIC was in active use. Bledsoe seems to have ignored the CIC.

4:07 Grant turns 0° T, going directly North. Grant hit for the first time. From Hamill's log: "0407 The first shell landed aft and exploded among empty powder cases stacked across the fantail. Thirty seconds later (0407 ½) several shells hit amidships and steam began to pour out of the forward stack. The forward fire rooms and engine rooms were out of commission." Hamill states: "a considerable part of the damage GRANT sustained came from the eleven 4.7 shells from Shigure" However eleven shells, 4.7, were apparently from the Shigure and thirteen were 6" shells from the Denver. The Denver

without journalistic standards and with no corroboration. Mason further assumes that he has no liability for reporting what utterance he records no matter what has been uttered to him. More importantly the Naval Institute takes no responsibility for such utterances. Oral History is notoriously in error and in many cases can be very self serving. As any historian know, as does any lawyer, physician or engineer, one must seek the truth, if it can be found. Mason as a theologian seems oblivious to this reality of professionalism.

Mason presents an oral history from Admiral Kinkaid, about fifteen years latter and twelve years before the Admiral's death. In this history Kinkaid accuses the Grant of not following orders. Nisewaner in a letter to Mason on 30 October 1989 states as follows:

"It is inevitable that there will be inaccuracies in the recollections of those who are asked to remember important and emotionally charged episodes from their lives and experiences. It is inevitable also that there cannot be full verification of statements and their content. Despite this, we are gravely concerned that apparently no effort was made to check the following paragraph from page 280 of your book <u>The Pacific War Remembered</u> as, for posterity, it condemns Grant.

"The one thing that went wrong for us was during the attack by <u>Destroyer Squadron 54</u>, which was coming down from ahead. Its orders were clear enough. When the destroyers had fired their torpedoes they were to turn east and hug the shore on their way back north, so that \_they would be clear of the gunfire from our battleships and of the Japanese gunfire. <u>For some reason or other one</u> <u>destroyer, the USS Grant, didn't comply</u>. She "-turned and went directly north, and she got in the line not only of Japanese gunfire but of ours. She was very badly shot up. It was quite remarkable that she didn't sink. She was eventually towed to the gulf with an enormous number of dead and wounded in her. But that was the only mistake among the screening vessels that I know of.""

The quote from Kinkaid as stated by Mason is: "*For some reason or other one destroyer, the USS Grant, didn't comply* ". If one looks at the UCMJ one sees article 92, which states: "**16. Article 92**— **Failure to obey order or regulation** Any person subject to this chapter who—(1) violates or fails to obey any lawful general order or regulation; (2) having knowledge of any other lawful order issued by a member of the armed forces, which it is his duty to obey, fails to obey the order; or (3) is derelict in the performance of his duties; shall be punished as a court-martial may direct." Specifically failure to comply, read it as obey, is punishable under Article 92 and is a crime under the UCMJ. Thus Mason had accused Nisewaner of committing a crime under UCMJ Article 92, and since Nisewaner was never convicted of such a crime, since frankly none ever existed, then Kinkaid uttered a falsehood, and Mason as the publisher of the falsehood is liable per se for defamation of any and all the people he knowingly defamed. Mason's defense of his actions was that he was just recording what was said and as a historian he had not duty to ascertain the accuracy of what was said. If he were a journalist, and not a historian, there may be some defense, however he is holding himself out as an historian and as such has a much higher duty.

shells were armor piercing shells, many of which did not explode but which severed the high pressure steam lines. The Denver shells kill Dr. Mathieu outright and one slams between the CIC and the bridge. The shells also hit the radio room and the No 1 Boiler. 34 men were killed and 94 were wounded. Based upon the pattern of Denver hits over half of the killed were due to the Denver. Gilbert, the Signalman on the Grant is ordered by Hamill to used the signal lamp to contact the battle line and inform them, Pennsylvania receives the signal, and replies, Oldendorf orders cease fire.

4:08 Denver command, Captain Bledsoe then orders "Main battery ceased firing Word over TBS for ships to cease firing One of our own destroyers is being fired upon". The Grants log reads: "0408 ½ Additional shell hits began to riddle ship. Hit forward at waterline flooded forward storeroom and forward crews berthing compartment. Hitting 40 mm gun # 1 exploded 40 mm ammunition and started fire. Hit through starboard boat davit exploded killing ship's Doctor, Lieutenant Charles Akin Mathieu, 5 radiomen, and almost entire amidships repair party. Other hits in forward stack, one hit on port motor whale boat, one hit and low order explosion in galley. One hit in scullery room, one hit in after crews berthing compartment, and one additional hit in forward engine room. All lights, telephone communications, radars, and radios out of commission. Steering control shifted aft."

# 6.4.5 Phase V: Oldendorf Orders Cease Fire

The Grant send out a signal using its light. SM 1C Walter Gilbert sends this under order from the XO and Captain. The XO on the Grant was in the CIC and the Captain at the bridge. Both were working hand in glove. The signal sent and received by the Pennsylvania jus before it was to fire upon the Grant. The Pennsylvania via TBS immediately tells Oldendorf in his CIC on the Louisville who in turn uses the TBS to tell all ships in the Battle Line. This is proof of a highly effective and integrated communications network using redundant alternatives, the optical path. Oldendorf acts immediately and decisively. Oldendorf follows the successful adage for any Captain, "Act, don't think!"

4:09 Oldendorf issues a cease fire based on hitting the Grant. Yamashiro turns left again. Mississippi fires on Yamashiro.

4:11 Yamashiro hit, time elapsed since launch from DESRON 56 is 7 minutes, at 15 yards per sec, and distance being 6300 yards. It took 4 torpedo hits and Yamashiro hit by 2 torpedoes in side, claims it was Newcomb.

4:13 Leary sees torpedoes passing it towards Battle Line.

4:19 Oldendorf issues a resume firing after Grant is secured. Yamashiro explosion seen Yamashiro sinks

4:20 Grant is dead in the water.

4:24 2 Japanese cruisers fire torpedoes that go ashore.

4:25 Shima's second forces retreats.

4:27 "Grant reports being damaged and dead in the water."

4:30 Mogami and Nachi collide.

### 6.4.6 Phase VI: Oldendorf Follows Fleet

The Grant is helped by the Newcomb and its fate is improved despite the loss of life. Now in Phase VI the draw of Oldendorf to follow the Japanese Fleet, what is left of Nishimura and Shima's proceeds. The question is why was he allowed to do this. Halsey had started to move north, Kinkaid knew it, it left San Bernadino open, and Oldendorf and his attack group would have been better used to reinforce the location at Samar. They were a mere 40-50 miles away at that time. Oldendorf was just drawn into a search and destroy mission, which took his assets down the wrong direction.

4:31 Oldendorf orders fleet south.

4:33 Oldendorf sees radar contacts and orders attack to the south.

4:43 Mogami and Nachi untangle and proceed.

4:51 Cruisers go down west side after Japanese.

5:20 Stern of Fuso disappears.

07:45 From Hamill's book the final part of the drama occurs in the morning: "In an emotion packed effort, we transferred 38 men who were severely wounded to NEWCOMB where they would have more expertise and improved medical assistance. Sadly, a number of these men died later as a result of their wounds. One of those transferred was our Chief Radioman Wallace K. Carlson. As I had been Communication Officer prior to becoming Executive Officer, Wally (sometimes known as "Sparks") and I had worked together and had become close friends. As Wally was passed across to NEWCOMB on a stretcher, our eyes met. I was guiding the stretcher so that I was very close. I said, "We'll see you soon friend, Good Luck." Somehow the look in his eyes told me that it would not be so. He died shortly after transfer. I'll never forget that look."

These are the facts by the minute that night. The only loss was to the Grant and most if not all of that due to the fire by the Denver, the actual Denver shells which were unexploded were removed on the 25<sup>th</sup> and 26<sup>th</sup> from the Grant. They had been armor piercing shells and the Grant was only 3/8th inch thick steel plate so the shell went through and ended up in water, never exploding. The Denver actions appear to be more than just gross incompetence. They actually appear to be a Captain fighting a World War I battle in a late World War II scenario.

Swarming worked, but one of the major risks of swarming is that friendly fire from incompetent field leaders can lead to death. This problem has not been faced head on. It seems even today as something the military all too frequently tries to hide.

# 6.5 The Navy's Detailed Analysis

The following Table is based upon the detailed analysis of the Battle of Surigao in the US Naval War College document on The Battle of Leyte Gulf, Vol 5, Battle of Surigao Strait, 1958. This document was classified until January 1975. It contains a compilation of all the action reports from all of the ships involved. It also contains commentary from Captain Bates and his staff who prepared the document.

The commentary is contained in the all caps statements. We have decided to arrange this in tabular form and to then sort it by time and by active party. Generally the Bates report aligns with what we have presented from the prior sources. However it is unequivocal that the Denver did the damage. The excerpts from Bates below are for the period of 0350 through 0420.

0350; ... he (Oldendorf) decided to open fire with his cruisers, and, therefore sent a TBS voice radio message to warn them he was about to open fire. He would have likes to delay fire until the time DESRON 56 torpedoes were about to reach the target in order to obtain a concentration of shells and torpedoes on the target but this could not be done because of the rapidly decreasing range. Instead he decided to delay until the destroyers were approaching their firing positions at which time he would open fire in order to divert the enemy from attacking destroyers. He realized of course that this had an inherent weakness in that the enemy could be expected to maneuver to throw off the Allied gunfire. However he hoped that any errors thus introduced by this maneuver would be compensated for by the torpedo spreads of the three attacking sections of DESRON 56.<sup>76</sup>; p. 469

0351; ...when the range was 15,600 yards by TBS radio he (Oldendorf) ordered all cruisers of TG 77.2 to "open fire" His flagship opened fire immediately followed a little latter by ... Denver...<sup>77</sup>; p. 469

The above states that at 0351 Oldendorf orders an "open fire" when his ship, the Louisville, was at a range of 15,600 yards we would assume from the Yamashiro. Bates is not clear in what he is referring to here.

0351; and (:30) Denver opens fire at range 15, 500 yards bearing  $182^{\circ}T^{78}$ 

One must also assume here that the Denver which was further to the east of the Louisville would have a closer range. The Denver appears at this point due north of the Yamashiro.

<sup>78</sup> Bates, p. 487.

<sup>&</sup>lt;sup>76</sup> Bates, p. 469.

<sup>&</sup>lt;sup>77</sup> Bates, p. 469

0351; ...he (Smoot) increased speed to twenty five knots...<sup>79</sup>

0353 ; ...the Denver which appears to have had trouble maintaining station in column at five knots changed course to  $070^{\circ}T...^{80}$ 

The Denver also seems to be the only one having station keeping problems. She was moving slowly, namely five knots, and required a course change.

0353; ....he (Smoot) intercepted a message ....that the West Virginia was about to fire.... .changed course to  $210^{\circ}T...^{81}$ 

0353; The Commanding officer of the Grant which was the trailing destroyer of the section...for unexplained reasons decided to steer a course of 200°T instead of 210°T being steered by the other two ships in the section. Perhaps this was because the Leary had not increased speed to twenty five knots at 0351 but instead for unexplained reasons had remained at fifteen knots...<sup>82</sup>

The problem with the Grant seems to be due to Ensign Chrissy not being able to follow the Leary<sup>83</sup>. Nisewaner replaced Chrissy with Lyons, who was in the Number 1 Engine Room as the Engineering officer. Ironically this saved Lyons' life since shortly after his arrival at the bridge that engine room was hit with one of the Denver shells rupturing the superheated steam lines. Once Lyons takes the conn it appears that the Grant's following problems are resolved.

0354; ...HE (SMOOT) DID NOTHING TO COORDINATE THE OPERATIONS OF HIS ATTACK SECTIONS WITH THOSE OF HIS OWN SECTION AND APPARENTLY EITHER (A) LEFT IT TO THE DISCRETION OF THEIR COMMANDERS TO EFFECT COORDINATION, (B) CONSIDERED THAT IN THE VIEW OF THEIR PRESENT RELATIVE POSITION A COORDINATED ATTACK WOULD BE MADE OR (C) IGNORED THE MATTER ENTIRELY....<sup>84</sup>

This is an interesting remark by Bates on his own. He does this throughout the report. However here he may have missed the basic facts of the attack. Namely, Smoot was using a "swarming" approach to warfare, he had communications via TBS, he had command and control via the CIC, and thus this became a true swarming attack by having each ship assume a certain amount of independence.

<sup>84</sup> Bates, p. 494.

<sup>&</sup>lt;sup>79</sup> Bates, p. 493.

<sup>&</sup>lt;sup>80</sup> Bates, p. 489.

<sup>&</sup>lt;sup>81</sup> Bates, p. 494.

<sup>&</sup>lt;sup>82</sup> Bates, p. 494.

<sup>&</sup>lt;sup>83</sup> See Pfeifer oral interview number 2. Pfeifer recalls Chrissy problem and Chrissy being replaced by Lyons.

0356; ...he (Smoot) heard Commander ...Section 2 ...fire torpedoes...<sup>85</sup>

0357; ...he (Smoot) intercepted Commander .. Section 2 orders to make smoke...<sup>86</sup>

0358; ...Denver in her action report states that just before...at 0358...she picked up a "pip" which appeared to come from astern of the main battery target (Yamashiro) and to head directly for the Denver at twenty knots....This pip was ...likely the Shigure.....<sup>87</sup>

The Shigure was the Japanese Destroyer.

0358; ....he (Smoot) hears Commander ... Section 2 change course by emergency turn to  $000^{\circ}$ T....the range had now fallen to about 9200 yards...<sup>88</sup>

0359; ...he (Smoot) finally decides target is enemy ...<sup>89</sup>

0400; ...the range had decreased to 7000 yards...up to this time it has been his (Smoot's) intention to (a) turn to the eastward and fire torpedoes starboard and (b) retire toward his post attack rendezvous north of Hibuson Island. at 0400 by TBS...he ordered (a) a 90 degree course change to right and (b) "get ready to fire"....HIS (SMOOT'S) DECISION WAS OF COURSE CORRECT FOR HE WAS THERE TO DELIVER AN EFFECTIVE TORPEDO ATTACK....<sup>90</sup>

0401; ...He (Smoot) observed that the enemy was steadying on a westerly course....he steadied the Newcomb on a course of 270°T...<sup>91</sup>

0402; ...he (Oldendorf) knew that Commander Battle Line had executed a change of course to  $270^{\circ}T$  ...<sup>92</sup>

0402; ...he (Oldendorf) intercepted a TBS....from COMDESRON 56 (Smoot) directing Attack Section One to fire torpedoes when ready and to retire with smoke. This was pleasant news for it

<sup>85</sup> Bates, p. 494.

<sup>86</sup> Bates, p. 495.

- <sup>87</sup> Bates, p. 489.
- <sup>88</sup> Bates, p. 495.
- <sup>89</sup> Bates, p. 496.
- <sup>90</sup> Bates, p. 496.
- <sup>91</sup> Bates, p. 497.

<sup>92</sup> Bates, p. 471.

indicated not only that DESRON 56 should be retiring from the battle area but that Section One  $\dots$  would soon be clear...<sup>93</sup>

0402; ....having determined that (a) the present course of the enemy ship was 290°T speed 9 knots, (b) the range to the target was well within the effective range of his (Smoot's) intermediate speed torpedoes, (c) he (Smoot) had succeeded in reaching a good firing position although not the optimum...<sup>94</sup>

0403; ....(Smoot) ordered "fire when ready and retire with smoke".....IT WAS BETTER TO FIRE WITH A GOOD SOLUTION THAN DELAY FOR A BETTER SOLUTION AND PERHAPS LOSE THE PRESENT GOOD FIRING OPPORTUNITY......in the meantime...Leary continuing to fall farther behind...increase speed to 25 knots (0358) and at 0403 commander of Leary followed shortly by commander.. Grant commenced changing to course 270°T....<sup>95</sup>

As Nisewaner remembers<sup>96</sup>;

"On orders we charged south toward the Japanese Task Force and on one 'brief order all columns of Ships were ordered to turn West, thereby spacing us across the Gulf directly in front of the Japanese Fleet. We were then at about 04:03 ordered to fire one half salvo of torpedoes (five torpedoes each) at the Japanese Fleet. Almost immediately we were straddled by gun fire and several huge 16" shells from the Japanese batteries passed over my forecastle so close to the bridge where I was stationed that one felt that they could reach out and touch them. All ships were then ordered to turn individually away from the Japanese fleet and head north."

It seems that at this point the Yamashiro was starting to fire on the Grant and all of Section 1. The 16" shells were like small Volkswagens being sent over the head of the ships. They sounded like massive railroad cars going a hundred miles an hour just feet from your face.

0404 ; and (:30)....the Denver shifted her main battery (6") from the Yamashiro to the secondary battery target now bearing 165°T range 8,000 yards which bearing she appears to have obtained from the secondary battery director. However within thirty seconds she corrected the bearing to  $172^{\circ}$ T and ...<sup>97</sup>

Again Nisewaner recalls<sup>98</sup>:

<sup>97</sup> Bates, p. 490.

<sup>&</sup>lt;sup>93</sup> Bates, p. 471.

<sup>&</sup>lt;sup>94</sup> Bates, p. 497.

<sup>&</sup>lt;sup>95</sup> Bates, p. 497.

<sup>&</sup>lt;sup>96</sup> See Nisewaner letter to daughter, April 1991.

<sup>&</sup>lt;sup>98</sup> See Nisewaner letter to daughter April 1991.

"However, just as the A. W. GRANT started our turn away, we were straddled again and then "Hit" by both Japanese shells and American cruiser shells. The American shells were 6" shells from the main battery of the cruiser DENVER who has mistaken us for an attacking Japanese destroyer. Some one had not kept close watch on what was going on. In a space of less than three minutes we received 23 major caliber shell-hits. 11 Japanese hits and 12 American hits. Captain Smoot saw the error immediately and screamed over the TBS, our voice communication system, that the Battle line was firing on an American destroyer. ..firing on both sides stopped."

Here Bates recalls what seems to be the truth to him at the time, namely 1958. But we must make this consistent with the memories collected by Hamill. Namely<sup>99</sup>:

"Again it was an ex Navy man who seeing our reunion sign in Ormand Beach at the hotel where we met in 1992, joined us and announced that he had been on DENVER the night we were hit. He reported having heard an exchange between the Captain on the bridge and Exec in CIC. DENVER's Captain (Captain Bledsoe) on his bridge PPI Scope had spotted pips, which appeared to be destroyers, leaving the enemy formation in torpedo attack mode and headed on parallel track. He told the Exec to take them under fire. The Exec opined that these were "Friendly" ships and that he would have to verify the IFF. (IFF was the Identification device that would readily prove us to be friendly). The Captain, according to our friendly sailor, shouted at the Exec. "Open fire that's an order!" The rest is history."

The CIC directive, and in the case of all the ships at this time, they were under CIC control with the XO in the CIC, the XO of the Denver reports to the Captain that he had no checked IFF, the electronic signature which would verify that the Grant was a friendly. It was more than just reckless disregard on the part of Bledsoe.

Moreover, Hamill goes on to state<sup>100</sup>:

" DENVER's Action Report has a most significant series of entries!

0404 Main battery cease firing - shift target to bearing 165°T, range 8000 yards.

0404:12 Main battery director II on target but target bears 172°T.

0406 Main battery commenced firing, 15 second salvos, full rudder control (In all probability it was not these shells that hit us as there'd not be sufficient time for them to have reached us, been noted and called to the battle line's attention.)

0408 Main battery ceased firing. Word over TBS for ships to cease firing. One of our own destroyers is being fired upon. (After 4 unrelated entries)

<sup>99</sup> Hamill, Mostly Water, pp. 197-199.

<sup>&</sup>lt;sup>100</sup> Hamill, Mostly Water, p. 198.

0427 GRANT reports being damaged and dead in water.

There were two obvious errors.

One was in the 7° difference between the target ordered to be taken under fire and the actual firing. At 8000 yards 7° difference translates into 1000 yards. Was this entry a cover up to make DENVER's firing on GRANT seem to be a technical error when in fact it was due to human frailty on the part of DENVER's Captain?

The second error arises from the fact that at this point heavy enemy ships were 14,000 yards or more away from DENVER; specifically, confusion in the mind of her Commanding Officer."

Hamill has deconstructed from the logs the fact that this was not just an arithmetical error. Latter in this chapter we perform a more detailed technical analysis of the situation.

0404; ...Newcomb using broadside fire to port commenced firing a half salvo ...on...course 213°T at the battleship ...(...Fuso)...bearing 200°T, angle 90 degrees and range 6200 yards and tracked on course 290°T, speed nine knots....depth six feet...Newcomb now continued on course 270°T at speed of 25 knots...commander Grant observed that a large explosion had occurred in the Japanese Main Body (this was Yamashiro)...<sup>101</sup>

0404 ; and (:30)...commander Grant observed he was being fired upon by friendly ships...he expressed his concern..."0404:30 ship began to be straddled by gunfire", "from both sides"...he promptly increased speed...a torpedo...observed about twenty feet astern of the Grant...<sup>102</sup>

Nisewaner now has been hit and is receiving multiple hits and at this point mostly from the Denver.

0405 ; and (:30)....commander Grant noted....battleship was being heavily hit by Allied shells... $^{103}$ 

0406; ...he began receiving TBS ...reports from COMCRUDIV 12 in the Denver that the enemy was firing at the left flank cruisers and that the Denver had been straddled. He immediately changed speed to 15 knots...<sup>104</sup>

0406; ....Denver commenced firing. Although she did not report her opening firing range or bearing....the bearing was about 177°T and the range 7700 yards. That her target was the

- <sup>102</sup> Bates, p. 499.
- <sup>103</sup> Bates, p. 499.
- <sup>104</sup> Bates, p. 471.

<sup>&</sup>lt;sup>101</sup> Bates, p. 498.

unfortunate ...Grant seems clear for that ship latter reported having been hit by 6" projectile commencing at 0407. No other 6" cruisers were firing at the ...Grant...<sup>105</sup>

What is interesting here is that the "Denver ...did not report her opening firing range..." is in Bates report. It is further interesting that Bates has commented on all other deficiencies except this one which given the fact that the Denver is attributed by him to be hitting the Grant that any record of this as required by Navy policies is mysteriously missing. This along with the Hamill conversations years latter with someone on the bridge of the Denver lends credence to the Bledsoe actions.

This is the critical moment when the Denver changes direction and opens fire on the Grant.

0406; ...(Smoot) receives a message from commander Grant reporting she had fired torpedoes and the Denver commenced firing with her main battery on the Grant....(SMOOT) WAS NOW CONFRONTED WITH A DIFFICULT SITUATION. HE HAD FIRED HIS TORPEDOES...TO RECEIVE THE LEAST DAMAGE FROM ENEMY GUNFIRE...HE DECIDED THAT HIS BEST COURSE OF ACTION WAS TO CHANGE COURSE TO THE NORTH BECAUSE HE WISHED "TO PRESENT THE SMALLEST TARGET ANGLE AND PRODUCE THE GREATEST OPENING RANGE RATES" ....INCREASING SPEED TO 32 KNOTS...WHILE IT IS ACCEPTED THAT SUCH A RADICAL CHANGE OF COURSE WAS PROBABLY URGENT AT THIS TIME IT IS NOT ACCEPTED THAT THE CHANGE OF COURSE TO THE NORTH...WAS CORRECT...Commander of Grant commented ..."In addition it is an opinion held by this command that after launching torpedoes the "turn away" from the enemy battle line should be by simultaneous ship movements instead of by column movement in order to further reduce the time involved in "clearing the enemy"...<sup>106</sup>

The comment by Nisewaner is a critically perceptive remark. There were two ways to act: as a group or individually. As a group was the Navy way up until that time. The reason was that prior to this time there was no effective communications, battle fields real time intelligence or IFF. However in Surigao all of these elements went into play. As such Nisewaner's actions were not only correct but were to define actions of any and all such forces and their force actions into the future.

0406 ; and (:30)....commander Grant swung his ship to the right and back to the left...he commenced laying "funnel smoke"..  $^{107}\,$ 

There was also some problem making smoke. Pfeifer and others remark that some seaman did not make the smoke properly. However this would have only provided protection from the Japanese and not the American forces since the Americans had radar.

<sup>107</sup> Bates, p. 501.

<sup>&</sup>lt;sup>105</sup> Bates, p. 490.

<sup>&</sup>lt;sup>106</sup> Bates, p. 500.

0407 ; and (:30)....shortly after falling in the astern of Leary he (Nisewaner) started to swing to the right 310° T...while he gives no reason for this it seems probable that the Newcomb was "cutting the corner"...as he commenced swinging he received his first shell hit which landed among empty powder cases stacked across the fantail and disabled the after 5" gun...he immediately ordered the remaining 5 torpedoes ...fired...he presumably did this because (a) he was in a good firing position (b) enemy gunfire was accurate and he was planning to clear the area and (c) mindful of doctrine that "sinking cruiser or destroyer fires her torpedoes at the best available enemy target" he desired to insure that his torpedoes were launched...<sup>108</sup>

Here again Bates seem to miss the obvious. Nisewaner let the remaining five go because he had 4,000 pounds of Torpex, or the equivalent of 10,000 pounds of TNT exposed on his deck. Any stray shell could have set them off. Thus the best policy is to fire them off as soon as possible. Bates seems to construe some reason in his mind for this action. Bates present good reasons but the facts are different. This seems to be a pandemic problem with Bates and his comments. His report just takes written decade old Action Reports and tries to deconstruct them. If all else fails one must deal with the principals and find out what and why.

0408; ...he (Oldendorf) received a startling message from COMDESRON 56 that "You are firing on COMDESRON 56. We are in the middle of the channel" Then before he could take action he received a second message as follows "You are firing at us" Without delay at 0409 he ordered "All ships cease firing" This order was quickly complied with and the entire battle disposition ceased firing...THIS ACTION BY CTG 77.2 WOULD HAVE BEEN SOUND DESPITE THE FACT THAT A FEW JAPANESE SHELLS HAD STRADDLED THE DENVER AND MINNEAPOLIS ABOUT TWO MINUTES EARLIER HAD HE (OLDENDORF) IMMEDIATELY FOLLOWED THIS ORDER BY A SECOND MESSAGE DIRECTING THAT FIRE BE RESUMED PROMPTLY BY EACH SHIP ONCE THE LOCATIONS OF THE COMDESRON 56 AND THE ENEMY HAD BEEN ESTABLISHED......(FROM CTF 79) "THIS WAS THE LARGEST ACTION WHICH HAS OCCURRED IN THE WAR TO DATE IN WHICH RADAR FIRE CONTROL WAS USED EXCLUSIVELY. UNDER THE CONDITIONS WHICH EXISTED IT WAS CLEARLY IMPRACTICABLE TO ASSIGN TARGETS..."...<sup>109</sup>

Bates makes the remark at the end of the above from CTF 79, Carrier Task Force 79, Vice Admiral Wilkinson, that this was the first all radar battle. In fact this was the first battle ever conducted under all electronic command and control. The only except we know of is the use by Gilbert of the signalling light after the Grant's radio was blown out. Ironically optical communications would become an alternate in future war plans. Thus in a complete sense this was truly the first battle conducted in a modern fashion. What is also see is that the technology enable tactics, namely swarm dispersal.

<sup>&</sup>lt;sup>108</sup> Bates, p. 501.

<sup>&</sup>lt;sup>109</sup> Bates, p. 472.

0408; ...(Smoot) at this time did not realize that the Grant had been heavily hit and was not following...the Grant was 1700 yards astern of the Newcomb...<sup>110</sup>

0408 ; and (:12)...commander of Grant fired a second salvo...of torpedoes...upon completion ...commander of the Grant continued turning farther to the north to the right to course  $000^{\circ}T...^{111}$ 

0409; ...Grant was swinging slowly north...<sup>112</sup>

0410; ...Grant first salvo of torpedoes pass Yamashiro...<sup>113</sup>

0413; ...Grant second salvo torpedoes pass Yamashiro...THE GRANT TRACKED THE TARGET ON COURSE 260°T AT SPEED ZERO WHICH ALSO INDICATED THAT SHE HAD LOST THE TARGET IN THE EXTENSIVE FALL OF SHOT AROUND THE TARGET AND SINCE HER TORPEDO PROBLEM SOLUTION WAS OTHERWISE CORRECT HER TORPEDOES NECESSARILY MISSED ASTERN...<sup>114</sup>

0416; ...(Smoot) informs (Oldendorf) over TBS that the Grant was due west of Hibuson Island and was proceeding slowly on course north...<sup>115</sup>

0418; ....(Smoot) received TBS message from (Oldendorf) asking whether he was now clear ...he was...but Grant was still in the channel...<sup>116</sup>

Oldendorf seems to be continually in command unlike Bledsoe. Oldendorf used his CIC with brilliance and had the ability to integrate all of the electronic command and control elements. One could argue that this was also because he had an excellent staff. But from the Hamill note one sees that Bledsoe's staff was equally proficient but that Bledsoe overrode them for reasons unknown.

0419; ...he (Oldendorf) received two TBS ...messages from COMDESRON 56 to the effect than Newcomb....Leary was out of the channel but the Albert W Grant was due west of Hibuson Island and was proceeding north...<sup>117</sup>

- <sup>113</sup> Bates, p. 503.
- <sup>114</sup> Bates, p. 503.
- <sup>115</sup> Bates, p. 504.
- <sup>116</sup> Bates, p. 504.

<sup>117</sup> Bates, 476.

<sup>&</sup>lt;sup>110</sup> Bates, p. 502.

<sup>&</sup>lt;sup>111</sup> Bates, p. 502.

<sup>&</sup>lt;sup>112</sup> Bates, p. 502.

0419; ...(Oldendorf) send TBS ...to "resume fire"...<sup>118</sup>

0420; ...Grant was dead in the water...<sup>119</sup>

Now we are back on track.

In order to complete the picture we present the information about the Denver as regards to its firing at the time. From Bates we have the details on the Denver and the other cruisers firing times are as follows:

Table 5 Cruiser Firing times, ranges and bearings								
Time	Ship	Opening Fire	Opening Fire	Opening Fire	Opening Fire			
		Range Yds	Range Chart	Bearing	Bearing Chart			
0351	Louisville	15,500	15,800	187	186			
0352	Portland	15,500	15,500	186	184			
0351:30	Minneapolis	15,800	15,600	192	181			
0351:30	Denver	15,500	15,600	182	179			
0351:30	Columbia	15,450	15,600	189	176			

In a similar fashion the following are the shells expended by ship and the remaining shells after the battle.

Table 6 Shells fired by Cruiser							
Ship	Fired	Fired	Remaining	Remaining			
	AP	HC	AP	НС			
Louisville	243	0	406	564			
Portland	162	0	165	95			
Minneapolis	237	0	78	165			
Denver	931	37	269	1083			
Columbia	844	0	356	120			

The Bates report also presents detailed maps of the battle. The first chart is shown below and represents the battle line, the destroyers and the Yamashiro. We have also shown the relative bearing of the Grant from the Denver.

<sup>&</sup>lt;sup>118</sup> Bates, p. 504.

<sup>&</sup>lt;sup>119</sup> Bates p. 504.



Figure 61 Position of the Grand and the Denver at the time of firing by Denver

The following is an extension of the chart from Bates. It shows the Grant and the release of its torpedoes.



Figure 62 Torpedoes release by Grant

The Deck Log of the Denver is also revealing. It is as follows<sup>120</sup>:

"Wednesday, 25<sup>th</sup> October, 1944.

00 – 04 Watch

Steaming with Task Group 77.2 toward Surigao Strait in hopes of finding a large Japanese surface force. Radio reports indicated that a large group of twelve enemy ships was proceeding up the strait bent on forcing entrance into Leyte Gulf, the force consisting of two battleships, three cruisers, and seven destroyers. Steaming in company with Task Group 77.2, which consists of the following: U.S.S. PENNSYLVANIA, MARYLAND, WEST VIRGINIA, TENNESSEE, CALIFORNIA, MISSISSIPPI, LOUISVILLE, MINNEAPOLIS, PORTLAND, COLUMBIA, DENVER, PHOENIX, BOISE, H.M.A.S. SHROPSHIRE and Destroyer Squadron 56.

<sup>&</sup>lt;sup>120</sup> See <u>http://www.hazegray.org/navhist/denver/logoct44.htm</u> Deck Log Book and War Diary USS Denver CL 58 1-31 October 1944.

Rear Admiral J.B. Oldendorf in U.S.S. LOUISVILLE is OTC. The ship is at General Quarters, darkened and in Material Condition "A". Cruising in Battle Disposition "2-A" on course 270°T(PGC) and axis 090°T; speed 5 knots. All four (4) boilers on the line. The light forces of the left flank, consisting of LOUISVILLE, PORTLAND, MINNEAPOLIS, DENVER and COLUMBIA are steaming in column in that order, distance 700 yards between ships, 900 yards between sections.

0020 Changed course to 090°T(PGC).

0100 Changed course to 070°T(PGC).

0118 Changed course to 045(PGC).

0130 Changed course to 075(PGC). PT boats were already attacking with torpedoes at 0145. Destroyers of this force were ordered to proceed and attack with torpedoes. 0145 Changed course to 050°T(PGC). Radio reports from PT boats in Surigao Strait indicate that a Japanese force consisting of about twelve (12) ships, two (2) battleships, three (3) cruisers and seven (7) destroyers is coming up the Strait in two groups. Destroyers of this force have been ordered to proceed down the Strait and attack with torpedoes.

0214 Went to 10 knots (100 RPM).

0215 Changed course to 280°T(PGC) and at 0224 slowed to 5 knots.

0234 Course changed to  $270^{\circ}T(PGC)$ .

0303 Went to 10 knots (100 RPM).

0305 Changed course to 090°T(PGC).

0308 Observed flares off starboard bow. At 0310 screening ships of this group were observed opening fire.

0310 Slowed to 5 knots and observed screening ships of this group firing at enemy surface craft.

0333 Went to 10 knots.

0338 Slowed to 5 knots. 0339 All engines were stopped.

0340 Changed course to 077°T(PGC).

0341 Changed course to 090°T(PGC).

0342 Went to 5 knots.

0346 Slowed to 4 knots.

0350 on course 090°T (PGC) and at four knots six inch battery opened fire on the enemy. 0350 Six inch battery opened fire on enemy surface craft.

0353 Changed speed to 5 knots. Enemy shell splashes were seen straddling the ship at 0355.

0355 Observed enemy shell splashes straddling this ship.

Av. Steam 600 Av. RPM 54 S. D. Cornish, Lt., USNR."

It is now the next watch where the problem begins.

"04 – 08 Watch

Steaming as before, on base course  $090^{\circ}T(PGC)$ , at 5 knots, with the ship at General Quarters for a surface engagement with Japanese forces. The 5" battery opened fire at 0400 and fired rapidly until 0408 when the ship ceased firing altogether as the formation was maneuvered into better position.

0400 Five inch battery opened fire.

But it was 0406 that the Denver 6" Battery changed direction and fired on the Grant. There is no mention here of that fact

0407 Went to standard speed.

0408 Ceased firing on signal.

This is Oldendorf commanding a "cease fire". It is quite amazing that this was accomplished in less than two minutes. It again re-emphasizes the fact that Oldendorf was effectively using his CIC and Bledsoe refused to use his, despite it actually functioning.

0414 Changed course to 270°T(PGC).

0423 Slowed to two-thirds speed. 0433 Changed course to 190°T(PGC).

0436 Commenced maneuvering to form Battle Formation "2-A" on U.S.S. LOUISVILLE. Resumed firing at 0532 and continued until 0557. Upon orders of the O.T.C. U.S.S. DENVER, COLUMBIA, BRYANT, HALFORD, and ROBINSON proceeded on a southerly course to sink enemy cripples seen burning in the water. Maneuvered on various courses and at various speeds until 0532 when firing was resumed at full speed and on course 250°T(PGC).

0538 Changed course to 300°T(PGC). Slowed to two thirds.

0557 Upon completion of firing commenced forming special cruising formation. .....

Av. Steam 600 Av. RPM 152 S. D. Cornish, Lt., USNR."

The Log fails to recount any information in and around the time that the action against the Grant occurs. Lt. Cornish seems to have been on watch during GQ for the two four hour watches. It is not clear why he fails to recount what would have been a critical fact.

### 6.6 The Grant's Remembers: Facts and Reality

There are many sources to retell what happened on board the Grant at the moments of the shells hitting. In this section the remembrances are collected from these sources.

#### 6.6.1 Grant Battle Report

The Grant Battle Report states the following for that battle<sup>121</sup>:

"Following the battle damage our medical setup became pretty grim. Prior to the operation we transferred our Chief Pharmacist's Mate without replacement. Within a minute after the first shell hit, the medical officer was killed outside battle dressing station forward, and the PhM 1/C was instantly killed outside sick bay amidships. This left one PhM 3/C working in the aft head [toilet] under emergency lighting to treat approximately 45 dying men and 50 with serious in juries."

"The reaction of the crew in a dire emergency requiring medical help was remarkable. The remaining PhM 3/C, W. H. Swaim, Jr., took charge of a staggering crisis to carry aid to the wounded about the ship. In addition to maintaining his own battle dressing station in the crew's head aft, Swaim issued instruction for those setting up operations in other parts of the ship.

"Swaim had some able assistance. J. C. O'Neill, Jr., a sonar-man, whose association with his father, a physician, enabled him to turn to on some of the ugly wounds, improvised makeshift tourniquets and administered morphine relieve pain. He bound up numerous open wounds and stumps, and rigged an emergency oxygen tent for a man at the point of death from burns. The Chief Commissary Steward, L. M. Holmes, organized a first-aid station in the wardroom, where the doctor would have worked, and showed a great amount of talent in a field far removed from his own.

"The wounded cared for the wounded. W. G. Hertel, WT 3/C, badly wounded and unable to move his legs, asked to be propped up against the base of a boat davit and from there administered morphine syrettes to all within his reach. J. M. Flaherty, RT I/C, severely wounded by shrapnel and bleeding profusely, rigged a makeshift dressing on his badly torn thigh, and then proceeded to give aid to the other wounded. One boy, W. M. Selleck, RM I/C, with both legs

<sup>&</sup>lt;sup>121</sup> Battle Report, USS Albert W Grant (DD 649) October 25 1944.

torn off and near death, looked up to the Chief Commissary Steward and said before he died, '*There's nothing you can do for me, fellows. Go ahead and do something for those others.*'.

"At his battle station with Repair 3, on the fantail, R. H. Parker, MM l/C, heard the safety valves of the forward engine plant blow. Showing complete disregard for his own safety, he ran through' the intense shell fire and shut off the escaping steam below, saving at least a half dozen lives of men trapped By live steam in the forward fire and engine rooms.

"Hit by shrapnel from one of the first shells to explode, severely wounded and weak from loss of blood, Ensign F. D. Case refused medical, aid for himself, carried stretcher cases to the battle dressing station until he collapsed and fell to the deck. Unable to regain his feet, he lay against the deck house and directed efforts to treat the wounded about him. Unable to walk himself, he gave his shoes to a shipmate whose shoes had been burned off his feet.

"The Engineering Officer, Lieutenant B. B. Lyon, rushed below to check the boilers. Discovering that one boiler could still be operated, he organized a crew and entered the steamfilled compartment. There were no lights and most of the work had to be done by sense of touch. He worked steadily until he was able to get the GRANT underway."

King, Brown, Bennett, DeMarco, Kelly, Jones, Ogden, Bradfield, damage-control officer Lieutenant William J. E. Crissy, organized parties to seal the twenty big holes in the hull, half of them from American shells.

## 6.6.2 Nisewaner's Memories

Captain Nisewaner has recollected the events on several occasions. In the book by Stan Smith, the author quotes from a letter to him from Captain Nisewaner<sup>122</sup>. One could estimate this letter as being written during the period of 1958-1960. Selections of this letter are quoted as follows.

"It was about this time that rumors of bigger things ahead began to fly thick and fast. The executive officer, Lieutenant Hamill, who was standing a good portion of the watches in CIC and listening carefully to all voice traffic and having the operators write down in the log everything coming in, reported to me that a Japanese force had been reported approaching the southern entrance to Leyte Gulf. "

The focus on Hamill in the CIC is a critical observation. Since Cmdr Wylie introduced the CIC in an operations context in 1943, and Wylie was a 1932 classmate of Nisewaner's, the CIC had become the lynchpin for controlling a complex and distributed strike. As has bee presented elsewhere, the CIC allowed both infra and inter ship communications and coordination and its effectiveness had been proven and methods and procedures distributed throughout the Navy by the time of Leyte. The argument made previously about Bledsoe and the Denver, especially the Denver's CIC recommendation as to not firing at a friendly, goes to the heart of the then accepted function of the CIC.

<sup>&</sup>lt;sup>122</sup> See Smith, The Battle of Leyte Gulf (Belmont Press, New York, 1961).

"Other officers of the ship began to pick up these tidbits of information about a possible pending action and would scurry up to the bridge to see what the data was. All in all, there were more rumors floating about the bridge at this time than one would ever hear at a ladies' bridge party.

"The fact that these weren't just rumors began to take head about 1710 on October 24 when the A. W. Grant received orders for release from all fire support duties and was ordered to report to Commander Task Force Seventy-nine. The ship immediately began proceeding on various courses and speeds to the vicinity of the Louisville, when she reported to COMDESRON Fifty-six for duty.

"This was really the beginning of the events that preceded the night action in Surigao Strait. By 1930 the A. W Grant had taken up Screening Station Six on the Louisville (guide) with Rear Admiral Oldendorf embarked. Captain Roland N. Smoot, COMDESRON Fifty-six in Newcomb, in command of the destroyer, and for the next few hours we remained in this cruising disposition with the destroyers on a screen around the column of cruisers and the entire Task Group steaming alternately on course 090 true (east) and 270 true (west) across the upper end of Surigao Strait. The Strait is not too wide at best, hence frequent changes of course had to be made."

The late evening before the battle the ships were taking up positions across the Strait. The destroyers were in position and patrolling east and west across the Strait in front of the cruisers which were in front of the battleships in the battle line.

"The three destroyers of Captain Smoot's section proceeded closely astern of each other at twenty-seven knots, following in the wake of the ship dead ahead with an absolute minimum of voice signals. At 0351, COMDESRON Fifty-six changed the section course to 200 true and at 0358 course was changed to 270 west, and the other sections maneuvered separately so that all nine of us would be in line across the Jap fleet. Shortly before this time, I noticed that my young inexperienced Officer of the Deck (Ensign Crissy) had become quite worried about station keeping at high speeds, twenty-seven knots, when only 300 yards separated the ships in column, and to ease his mind I called the Chief Engineer, Lieutenant (jg) B. B. V. Lyons to come up to the bridge as Officer of the Deck to give me a little more freedom to roam about the bridge, check the talkers, the torpedo director (on the bridge level) and analyze any changing events. One of the leading chief petty officers had recently been promoted to Chief Warrant Machinist and was fully qualified; hence he was able to take over from Lieutenant (jg) Lyons."

Crissy had a Ph.D. in Psychology from Duke and had been in the Navy for a brief while. As the deck officer under these circumstances he was being required to follow the Leary at 27 knots and at a distance of 300 yards. At this speed and at that close distance the Grant was pitching and yawing at a tremendous rate and Crissy was also doing this in the darkness of night. It would be like a dance with sharpened swords, amongst blind men, and hoping that no one ever missed their queue. Lyons was qualified as both deck and engineering officer and he was more experienced and Nisewaner could trust him to be calm. He left the engine room and came to the bridge. This act saved his life since in the ensuing attack his former battle station was totally killed.<sup>123</sup>

<sup>&</sup>lt;sup>123</sup> Based upon discussions with Pfeifer 13 January 2007, oral history recorded.

"At 0402 a large explosion was heard in the vicinity of the Japanese fleet and the squadron was ordered to fire torpedoes by COMDESRON Fifty-six. Shell fire began to land slightly astern of the R. P. Leary dead ahead of the A. W. Grant at this time and believe me, it was slightly uncanny and terrifying. One could pick up a slight flash of the Japanese ships and then this pinpoint of light would get bigger and bigger until suddenly, with a roar like a freight train, it would pass close ahead and splash on the opposite side of the ship. Some of the misses must have been 200 yards away but one felt as if they could almost reach out and touch them. I remember only too well my own mental gyrations of thinking, 'This is like a tennis game when one keeps turning his head from side to side to follow the ball.'

"Lieutenant (jg) C. A. Mathieu, Medical Corps, had been on the bridge observing and talking to me until this time, but when he heard the first shell land, he just yelled out, 'Boy, I'd better get down to that main battle dressing station!' He was killed en route by shell fire and his body found the next morning by myself, partially wrapped up in the bridge signal halyards and signal flags."

In addition, Nisewaner in a letter to his daughter further states<sup>124</sup>:

"Section THREE on the right flank consisted of the destroyers H. L. EDWARDS, LEUTZE and BENNION. Section TWO on the left flank consisted of the destroyers ROBINSON, HALFORD and BRYANT. Section ONE in the center consisted of the destroyers NEWCOMB, R. P. LEARY and A. W. GRANT, with the NEWCOMB being the flagship of the squadron.

As the junior Commanding Officer I was third in the column for Section ONE.

On orders we charged south toward the Japanese Task Force and on one 'brief order all columns of Ships were ordered to turn West, thereby spacing us across the Gulf directly in front of the Japanese Fleet. We were then at about 04:03 ordered to fire one half salvo of torpedoes (five torpedoes each) at the Japanese Fleet. Almost immediately we were straddled by gun fire and several huge 16" shells from the Japanese batteries passed over my forecastle so close to the bridge where I was stationed that one felt that they could reach out and touch them. All ships were then ordered to turn individually away from the Japanese fleet and head north.

However, just as the A. W. GRANT started our turn away, we were straddled again and then "Hit" by both Japanese shells and American cruiser shells. The American shells were 6" shells from the main battery of the cruiser DENVER who has mistaken us for an attacking Japanese destroyer. Some one had not kept close watch on what was going on. In a space of less than three minutes we received 23 major caliber shell-hits. 11 Japanese hits and 12 American hits. Captain Smoot saw the error immediately and screamed over the TBS, our voice communication system, that the Battle line was firing on an American destroyer. ..firing on both sides stopped.

Ravaged by fire and explosions the A. W. GRANT drifted helplessly for a while. We had lost all power; both life boats were shot away in their nests, the after end of the 'bridge was shot away,

<sup>&</sup>lt;sup>124</sup> Nisewaner letter to daughter April 1991.

the forward compartments, the forward fire-room and the forward engine room were completely flooded and luckily we were able to stop the flooding in the after firer room after the water had reached the lower gratings.

All medical personnel were killed except for a Pharmacist's Mate 3/c . ..Dr. Mathieu was one, our Pharmacist's Mate 2/c and 19t/c and. the Chef Pharmacists Mate. But others rose to the occasion. Uncommon valor was the normal reaction and bravery beyond the call of duty was the normal response. But we had forty men in the crew and three officers killed outright.. Another 80 men and 3 officers were wounded and transferred off the-ship. Our original crew was about 240 men and 20 officers. The dead were buried two days latter in the Philippines."

# 6.6.3 Hamill's Memories

The Hamill Book which contains extremely valuable insight to the events which complement the others. Hamill begins<sup>125</sup>:

"Reports kept coming in telling of Japanese battle fleets converging on the Philippines. Three fleets in all. On October 20th, during the early afternoon, our bombardment target took us to a point fairly close to cruiser NASHVILLE. To our delight, General MacArthur appeared on NASHVILLE's deck and climbed down into a ramp landing craft along with other brass and several Filipinos who turned out to be President Osmena and Resident Commissioner Romolo. We were indeed to witness at close range MacArthur's official return to the Philippines."

What is interesting is there was a somewhat mixed set of memories from other crewmen. Some did not even remember this event, and a small few were hostile towards MacArthur. Historically MacArthur was not a Navy favorite and politically he was viewed in various lights. Hamill clearly sees MacArthur as a significant player in this and one who he personally regards favorably.

"When he left in '42 he had said prophetically, "I Will Return." Thus there was great symbolism in his actual return, which signaled the Philippines to rise against the Japanese invaders. Amusingly, there was an extra pair of carefully pressed pants in the landing craft so that after proudly wading ashore, com cob pipe in his mouth, MacArthur could still be impeccable for the balance of his day. He was a fabulous man for whom I had unbounded respect. There were tears in the eyes of many of our crew as they watched this historic moment. MacArthur's showmanship was to ignite Philippine resistance to the Japanese and was to be responsible for saving American lives. Inevitably we arrived at 24 October 1944. Radio traffic was heavy with continued reports on the three great Japanese fleets converging on our Tacloban landing sites."

"With the aid of our SG radar we had, for some time, plotted the advance up Surigao Straits of a Japanese battle group reported to consist of battle ships, heavy and light cruisers and destroyers. They had been harassed by our PT boats and a destroyer squadron that made a run from the shoreline, fired their torpedoes and returned to their cover. Our old World War One battleships, several sunk at Pearl Harbor and then rebuilt, formed a line across the top of Surigao. In front of

<sup>&</sup>lt;sup>125</sup> Hamill, Mostly Water, pp. 124-130.

them was a line of our cruisers and on down the Strait our Destroyer Squadron 56 consisting of nine ships, GRANT among them."

The SG radar was a key element in the destroyer fleet. As has been described elsewhere herein the SG allowed long distance sighting. It was not a radar for fire control but for gathering information of approaching potential enemy threats.

"Our orders were made clear. We were to split up into three sections of three ships each and attack with torpedoes from port bows, starboard bows and "down the throat" of our enemy. Section 3 consisting of BENNION, LEUTZE, and HEYWOOD L. EDWARDS attacked the enemy from port side and retired toward the cover of Leyte. Section 2 with BRYANT, HALFORD and ROBINSON fired from the starboard side and retired toward the island of Hibuson leaving Section 1, NEWCOMB, LEARY and GRANT to make their run from dead ahead. Just before firing, we were to turn west toward Leyte and fire five torpedoes each. Theoretically, we were to use Leyte as our cover. The night was very dark but hardly quiet with TBS voice messages passing from ship to ship as fleet preparations went forward. Damage had been inflicted on Admiral Nishimura's ships and he must have known how strongly the deck was stacked against him. Regardless, the Japs kept coming. As tensions grew, I remember fleetingly thinking back to JENKINS' night torpedo attacks in the Solomon Islands."

There wasn't much time to think but clearly the adrenaline was running high. Though from m)' CIC battle station I could not see the fireworks, I could hear through my ear phones the comments of our bridge talker as he exclaimed about the continuous arch of shells passing over us as the two battle groups exchanged pleasantries. It must have been awesome. My plotting officers were receiving a steady stream of radar fixes on the Jap ships. The plot before me showed our enemy to be continuing its steady northerly course."

"As the range closed to a little over 6,000 yards (point blank range at sea) our Squadron Commander in NEWCOMB gave the order "CORPEN 90 FIRE TORPEDOES WHEN READY." This called for LEARY and GRANT to successively turn 90 degrees to starboard following NEWCOMB and then fire five fish as soon as we were comfortable with our solution. This would place our three ships on a Westerly course. As we swung to starboard, our plotters began to receive irregular and conflicting bearings. Then it became obvious that simultaneously with our swing to starboard what was left of the enemy column was turning to port which placed us in the unenviable position of running parallel with their entire gun batteries able to fire at us from point blank range."

Plots continued to be confusing as we settled on our course of 270°. As evidence of our proximity to the enemy, we were shortly to be hit by their machine gun fire. In reading reports of the action it is obvious as to why we began to have trouble with our plots. Several of the Jap major ships and several of her destroyers either sank or fell out of line. Jap destroyer SHIGURE however continued on and in all probability was the ship that hit us with 11 4.7 and two 40mm shells. The moment to order our torpedo men to dial in final settings was upon us. As the enemy was obviously in a column turn to the west I recommended fire at the "elbow" through which each Jap ship must pass as it swung to its new course. On the captain's orders we fired five torpedoes at 4:02 A.M. 25 October 1944.

As was the case in the Solomons some 18 months earlier, this was a moment of high anticipation and excitement. Actually, it was more than just exciting to be standing over the plotting board having seen the enemy tracked ever closer and to know that our squadron had forty five torpedoes on the way from our nine ships, with an additional 45 in reserve. Furthermore, we could be sure that our "fish" would run true. At Kula and at Kolumbangera quite the opposite was true as our projectiles were a disaster of malfunction and erratic performance.

They had been known to turn and hone in on the ship that fired them. Indeed, during training off Pearl Harbor JENKINS had very nearly been hit by her own exercise torpedo. TNT was replaced by compressed air in the nose cone of these training missiles. When they had run their course they could easily be recovered for reuse as the compressed air kept them afloat. Actually, they could puncture a hole in our 3/8 inch skin so when one ran out of control, JENKINS came very close to being holed.

On receipt of our Torpedo Officer Ed Pfeifer's report "AFTER BATTERY TORPEDOES AWAY," I was calculating the running time of our fish for a report to Captain Andy as to when "impact" might be expected. My calculations were very briefly interrupted by our Doctor Lt. Jg Mathieu's battle station was in the Wardroom (our First Aid Station) just forward of CIC (our Combat Information Center).

Doc stuck his head in the door and said "I'm going up to the bridge to watch the hits," and off he went. I was too busy and it all happened so fast that I had no time to tell him "Get the Hell back to your battle station." Under no circumstance should he have left it and tragically, this infraction cost him his life. I put my hand on the voice tube and shouted "Captain... two minutes to hitting time." Just at that moment the whole ship was shaken like a rag as shells plowed into it.

All lights and power were lost and in the pitch black dark several of the CIC team members were thrown to the deck. Most of us managed to keep our feet but there was no shred of light. The noise was deafening for several minutes as shells kept tearing into us. The ship seemed to be shaking itself to pieces. The final count of hits on GRANT would be 13 6" armor piercing, **11** 4.7" and 2 40mm machine gun bullets which came later.

There was no panic in CIC, rather a sense of total unreality. This wasn't really happening. All would be well in a couple of minutes when the lights came back on. But they didn't. Just as suddenly as it all started there was a deafening silence. Only the ticking, licking sounds of flames and a human wail were heard. Acrid smells of burning metal added to the devastation and strangeness of the moment. Our peril was obvious.

Through my voice tube I had heard explosions which seemed to come from the bridge. I shouted to the Captain but received no reply. I then told the CIC gang to assist with damage control (One of the damage control battle stations was right outside CIC) or go to the Wardroom and assist with first aid. I told my CIC team that I was headed for the bridge. Though I'm not certain, I believe the thought went through my befuddled head that if Andy was unable to carry on, I was in command. At this moment additional shells hit the ship. I left CIC and instinct told me that the

quickest way to the bridge would be up the outside ladders rather than the inside which went past the radio shack, next deck up.

Just past the inside ladder I put my hand on the "dog" which would open the port from our deck house to the outside deck. As I did so I remember hearing a "swooshing sound." Then there is a blank. Next, I hazily realized that I was lying on the deck still inside the deckhouse. I felt a little groggy and confused but otherwise just slightly bruised. I concluded that I could only have been "out" for a few seconds. Grabbing the "dog" once again, I opened the port and scrambled up the ladder past our radio shack deck and on to the bridge.

Though it was not quite so dark outside, visibility was at a minimum. I was aware of passing and crawling over a body half hanging from the ladder which seemed very unstable..... Later, we established that this was the remains of our wonderful Doctor and friend whose body, half hanging from the ladder, had been severed, as had the ladder, by a 6" shell. I did have one laceration of my left knee that tore my pants and left an inch & a half cut to be supplemented by a vertical inch & a half cut from the broken ladder. I still have a nice little + mark at the spot.

Also, in retrospect, I determined that the "swoosh" had been a six inch armor piercing shell which penetrated the corner of the deckhouse bulkhead just a couple of feet from me and exited just as fast. It must have hit something solid as it did then explode, killing our whole damage control party stationed just outside the deckhouse. The impact of the explosion knocked me down but I was saved by the deckhouse bulkhead.

With inexpressible relief I found the Captain and bridge-crew unhurt though the signal racks at the back of the bridge had taken a hit. By now we were virtually dead in the water. Remembering from the Solomons how totally confusing night actions can be, I asked the Captain for permission to send a signal back to our ships which would identify us as a "friendly" rather than a lap cripple awaiting the "coup de gras." On Andy's order, "Gil" Gilbert, our Signalman First Class, and I went to the front of the bridge. I checked the pelorus to be certain I had the proper bearing for our battle line and then had Gil send our message.<sup>126</sup>

"By way of explanation, I knew from my Solomon experience that the laps would send out flashing light messages during a night engagement. When one of our ships acknowledged, the laps would open up with guns on that bearing. Gil had his signal gun, a concentrated beam of light which could not be read unless it was directed head on. I told Gil to first send the procedure sign for "NO REPLY REQUESTED" and send it twice.

"Then send "FROM DD 649 DEAD IN WATER MANY WOUNDED NEED TOW" and send it twice followed by "OUT." This he did while I kept binoculars on the direction he was sending. By miracle we received a faint but discernable, "dot-dash-dot," or, "receipt acknowledged." Thirty odd years later at one of our reunions, we were approached by a chap who said he was on

<sup>&</sup>lt;sup>126</sup> This is Walter Gilbert. Gilbert was a highly experienced regular Navy Signalman and worked superbly under pressure, and Nisewaner considered him one of the best signalmen in the Navy. This would be the time his skill was put to the test.

the battleship PENNSYLVANIA, during Leyte and they were getting ready to fire on this "stationary" target which they thought to be a lap cripple.<sup>127</sup>

"At that moment orders came down to cancel fire plans as the target had been "identified" as friendly. By a most happy coincidence it was PENNSYLVANIA that had received our message just as she was ready to open fire with her 14 inch main battery. I remained on the bridge for a few minutes as Captain Nisewaner had gone below. Actually he went into the forward fire-room after hearing a man cry for help. Andy loaded him on his shoulder and carried him up a vertical ladder to the main deck. It was an Herculean task, which saved the man's life. About this time, I became aware of a throbbing in my left knee.

"Instinctively, I put my hand on the spot and was surprised when I came in contact with an open flesh wound one and one half inches long vertically and the same across. Directly on the knee cap it was a superficial wound. At that moment the Captain returned and there was much to do. I didn't think of it again until I came out of the paint locker later in the day. As I had been under water for more than three hours, the exposed flesh on my knee was white and clean and surprisingly not bloody as it might otherwise have been.

"When the Captain returned, I went below stopping briefly by the Wardroom where all sorts of heroics were unfolding. Our Doctor Mathieu and our 1st Class Pharmacists mate had been killed so 3rd Class Pharmacist Bill Swaim was our soul medic. I won't go into detail here on the magnificent behavior of our fellow crew members. Suffice to say, tales of their courage could fill several books and indeed were included in my Battle Report to the Captain and were publicized seven weeks later in newspaper and magazine and radio stories."

Hamill states that it was a 6" shell from the Denver which killed the Medical officer. The fact was that he was not at his battle station, and had he been there most likely he would have survived<sup>128</sup>.

"At almost the same instant the Medical Officer dashed down the starboard side of the bridge. I dashed back to report directly, to check operation and see if they had all the data necessary from the combat information center and fire control. Everything was working smoothly with no one particularly excited, in fact there was sufficient calmness about the crew, and at 0403 a half salvo (five torpedoes) was reported away to the squadron commander. I ran almost directly to the forward part of the ship -to the bridge, to see how we were in relation to the ship ahead."

"We were still following right in its wake, distance estimated at 300 yards, and then the shells drifted back and began to straddle the A. W. Grant."

"One of the first shells hit the port torpedo director, on the side nearest the Japs, and the one at which I had just been standing, and killed all hands at the director. The first hit aft landing

<sup>&</sup>lt;sup>127</sup> The interesting fact is that the Pennsylvania had not been able to fire earlier because of its older fire control system. The delay was critical.

<sup>&</sup>lt;sup>128</sup> See Hamill p. .

among some empty powder cases stacked in the fantail and placed five-inch 538 mount out of commission. The situation definitely did not look good to us at this stage of the game, and to avoid the possibility of shells hitting the remaining torpedoes and exploding the warheads, they were also ordered fired. Thanks to an alert Chief Torpedoman, the remaining torpedoes were away in a matter of seconds."

At 04:03 the ship was 270° T going west. Thus it had its port side towards the Japanese attack. The shall hit the port Director and killed the crew and one officer, Ensign Carlson.

"At almost this time A. W. Grant began to turn away from the Japanese ships to 000 true (north). Steam began to pour out of Number One stack and it became obvious that the Forward Fire Room and the Forward Engine Room were out of commission. Additional shells began to riddle the ship. One shell sheered the forward forty-mm mount just below the starboard side of the bridge, crossed through and hit the trainer on the port forty-mm mount, and then, without exploding, dropped down and spun around inside the metal ring at the base of the mount like a giant pinwheel. Had this shell exploded I certainly wouldn't be writing this letter. I was about ten feet away with only a thin aluminum deck plating between me and it."

Nisewaner does not talk about Walter Gilbert signalling that the Grant is dead in the water. Hamill does recollect this fact latter and it is recorded by Olson who was the Quartermaster on the bridge at the time.

"Lieutenant (jg) Lyons, the Chief Engineer who was acting as Officer of the Deck, was relieved to go below and make a check of the ship with a view to restoring power. Meanwhile we had steadied on course 000 true heading away from the Japanese ships and the scene of action but smoking badly, steam pressure dropping rapidly, and the ship losing speed. By 0420 we were dead in the water with no power or lights except emergency lighting. Enemy ships were still occasionally sighted due south through occasional fires and explosions. By this time we were entirely too busy solving our own problems to worry about them. The worst part of our trouble at this time was not knowing how much damage had been done, who was still alive, whether we could stay afloat, whether the Japanese had been stopped, and how we could communicate with other ships to indicate extent of trouble and ask for help. ..."

"We had no sooner stopped dead in the water when an executive officer, Lieutenant Hamill, worked his way through the debris up to the bridge and expressed utter amazement that I was still alive. He had received a report that the captain and most of the bridge personnel had been killed. With Lieutenant Hamill to relieve me on the bridge, I told him to take over, signal for help with the blinker light, if possible, and that I would take a look around the ship and try to determine the damage. There was little we could do at this time with communications lost, with all damage control parties, all gun mounts, and all engine spaces beyond repair, and the entire Midships Repair Party killed.

"It was a struggle working down from the bridge level to the main deck because the entire after end of the bridge had been blown off, both motor whale boats had been hit, the forward stack had been hit three times, and one shell had hit the port motor rear boat stanchion and then gone on to explode against the mast. This shell was the one that killed the repair party and most of the radio gang.

"As I groped along the deck in the darkness, hesitant to use more than a feeble flashlight with one narrow slit, I could not but be appalled at the carnage. The dead and wounded were all over. However, the efficiency with which shipmates who had drilled in first aid set up first aid stations was remarkable, and a tribute to the unusual leadership and training instituted by Dr. Mathieu. Unfortunately Dr. Mathieu himself had been killed; the Chief Pharmacist's Mate had been transferred just be- fore we made the trip; the First Class was killed, the Second Class was killed, and only W. H. Swain, Jr., Third Class was not a casualty. His decisive action and leadership and untiring labor during the emergency and the days following I believe saved the lives of many shipmates-

"After making almost a complete circuit over the after portion of the ship, having passed down the starboard side and back up the port, I was just abreast the hatchway to the port engine room, groping along in the dark, and trying to find the extent of topside damage and personnel left, when I heard a man along the outer rail feebly and pitifully crying, 'My buddy, my buddy is still in the fire room l' Steam was pouring into the open hatch at this time and this lad, whose name I've never known, indicated he had managed to get out. It was obvious in the dark that he was in no condition to help anyone."

"All I can remember is that I mumbled something about 'I'll see if I can get him' and, borrowing a heavy blanket from an emergency stretcher nearby to throw over my head, shoulders and back as protection against the steam, I started down the port ladder to the fire room. It was damned hot, but not utterly unbearable, so in short order, guided only by the feeble light of the emergency lanterns, I reached the lower floors of the fire room."

"Amazingly enough, just as I reached the lower floor plates, I saw the dim light of someone else coming down the starboard vertical ladder. I remember asking him what he was doing there, and he only expressed. amazement to find me there. The man was a slight Gunner's Mate Third Class, named J. R. Howard who, on his own initiative, had unhesitatingly entered a flooding and steam-filled fire room to render what assistance he could. "Two badly injured firemen were on the lower floor plate sitting in the same position, leaning back against machinery, entirely too overcome to more than feebly move."

"Neither appeared able to talk. The vertical lift from the lower floor plates of a fireroom is pretty tough. Even with a block and tackle it would be difficult to remove a body from the plate. However, we weren't interested in what was not possible, we wanted to get those two guys out."

"I had the first man rise to a standing position with Howard's help, and threw his arms about my neck. By then grabbing his wrists and bending over, I could carry him to the starboard ladder which looked a little clearer, and with Howard pushing with his hand against the man's fanny we were able to lift this victim up two flights to the main deck. It was tough going, one rung of the ladder at a time, as we would say to each other 'Ready- shift,' meaning shift your hand up one more rung. As we neared the main deck, other willing hands took the fireman by the shoulders and lifted him out of the fireroom. Howard and I returned for the second victim."

"This was a big fireman named Donald Terrence Rothe, Fireman Second Class, USNR, who weighed about 210 pounds. The second trip was a real struggle. How we made it I don't know. Many a rung, I thought we couldn't move another inch. To give myself false courage, I'd yell 'Come on, Howard-push!' I truly believe that Howard gave every last ounce of his strength and he didn't weigh over 135 to 140 pounds at the most. But with every entreaty, he would push harder. As my hands were beginning to slip off Rothe's wrists, and I couldn't get a good grip because he was a large man-I would beg Rothe, 'Hang on-please!' and some- where, out of some unknown source of strength, he would summon the courage to give the little extra feeble grasp that enabled us to hang on."

"Once again we made the top and people at the top of the hatch struggled and struggled to lift the now completely limp Rothe out of the hatch. Rothe died the next morning, blinded by steam which had seared his face and literally cooked his eyes and forehead. He was conscious until the end, with a shipmate talking to him and offering encouragement."

"Howard and I then crawled very weakly out of the fire room, unable to do any more for the time being. We knew that one more man was in the fire room because we had seen him and knew he was still alive because there was some movement in his body. However, at this time the fire room was flooding fast, being almost behind us as we went up the ladder, and the steam- as the water hit the hot boiler-became more suffocating and oppressive. I doubt if anyone could have saved this man, even if in good condition, which neither Howard nor I was at that time. But if stronger, I would have tried. The man we missed was the beloved Chief Water Tender, Donat, R. Suprenant- or 'Pop' as he was affectionately called-the oldest man on the ship. Two weeks later we finally recovered Pop's body when we docked at Manus Island, back once more in Seadler Harbor."

## 6.6.4 Carlson's View

Another view of the battle was from the diary of "Baldy" Carlson, one of the torpedomen. Baldy writes<sup>129</sup>:

"We left here (Admiralty Islands) October 12, 1944 and went to the Island of Leyte of the Philippine Islands. We arrived October 17, 1944. The ship would later be leaving Leyte Oct. 30, 1944 after the Battle of Leyte Gulf, but by then, I had been transferred to the hospital ship, "Mercy" because of the shrapnel I got in my wrist. The U.S. Navy's greatest Naval war battle took place here in Leyte Gulf."

"The Japs thought they were going to catch us sleeping. We knew they were coming 3 of our submarines informed us of them.<sup>130</sup> When 1 went to my 50th high school reunion in Worcester, MA, our class president, Joe Soute, told me he was one of those sailors on one of those subs that had tipped us off that the Japs were coming. He had seen an article on me in the Worcester paper

<sup>&</sup>lt;sup>129</sup> Carlson Diary.

<sup>&</sup>lt;sup>130</sup> Carlson is referring to the Darter and the Dace.

about me receiving the purple heart. Thank God my injury was minor . It was on Oct. 24, about 4 A.M., when we made a torpedo run on a Jap battleship. I was on torpedo control, constantly following our torpedo officer and I constantly gave information over the phone for everyone to hear and for them to accomplish the same at their stations. All information was coming from communications (radar and fire control)<sup>131</sup>."

"A couple times Armand Cauoette and Ken Harding had to transfer together (they worked as a team) from the "starboard" director to the "port" director as our ship was turning around (they would run from one side of the ship to the other as a team when the target ship or our own ship changed positions). This distance between directors was about 30 feet and they had to travel on the rear part of the deck of the bridge.

"We also had an Assistant Torpedo Officer and his name was Carson. Believe it or not, he would always put on a Mae West life jacket plus another plus slippers in case of "abandon ship." After the battle because we got hit, he was never to be found and I don't know what happened to him because of the bursting shells. I understand the same explosions caused us to lose our doctor and first class pharmacist mate."

"All we had left was a 2nd class petty officer pharmacist mate and he was treating everyone possible aboard who had been injured. His name was Bill Swain, who I have been to see in Thomasville, NC and found out he was riddled with shrapnel and didn't treat himself until the end. He still has a limpy leg which they refused to take the metal out of. He doesn't come too much anymore to reunions because he gets too upset."

"Because we got hit, I informed Miller, another torpedoman to make smoke at the rear of the ship, to hide our ship from attack......he went back there and opened all the valves of the tanks at once instead of emptying one at a time ......."

"We made 3 direct hits out of our 5 torpedoes that we shot at the Jap Battleship Yamashiro. As I understand, we got credited with being the only World War II destroyer to sink a battlewagon. They had been damaged by our other ships with their shells. Our own ships fired at us because we got so close to the Jap ships once we got hit."

Carlson's report validates the other data that the Grant did manage to make the hits with its first torpedo volley<sup>132</sup>.

"We lost the power of one four propellers and the ship was sinking. Later on, we found out that we would have sunk if it lowered another foot. Plenty of mattresses were used to plug many shell holes. American shells that were duds were thrown overboard. We lost 42 men. On the rear of

<sup>&</sup>lt;sup>131</sup> Again this is the CIC function which under Hamill was working perfectly. Nisewaner clearly understood the CIC role and how a destroyer captain would use it in an effective battle mission. As stated before this evolved from the tactical maneuvers of Burke and the other destroyers captains in 1943.

<sup>&</sup>lt;sup>132</sup> Carlson Diary.

the bridge where I was stationed with the torpedo officer<sup>133</sup> we lost the Assistant Torpedo Officer and 2nd Class Torpedoman Petty Officer Armand Caouette who lived in Winchendon MA."<sup>134</sup>

### 6.6.5 Bugge's Remembers

From another diary by Bugge, this seaman reports<sup>135</sup>:

"Oct 24 Shore bombardment, planes attacks and in afternoon received word Jap fleet headed in. The evening we joined up with task force to meet Jap fleet."

"Oct 25. 03.50 G.Q. to attack 03.55. Commenced attack on Jap fleet, our unit fired torpedoes at 04.05. We were in cross fire at 04.08. We receive hit on fantail. Empties? Saved us. We were hit regular for 3 minutes receiving 23 direct hits."

"One hit ahead of bridge and one aft. We managed to get a couple of miles away and stopped as engine rooms hit. Newcomb and Leary? Came back looking for us. Sent wounded to Newcomb. 35 dead or missing. At 5 tug came out to assist as we were ready to abandon it."

"We sent all gear to Leary. The tug saved us and towed us in. We were under constant plane attack and ship had to pull away several times. Next day got to San Pedro Bay."<sup>136</sup>

### 6.6.6 Williams Recollections

Finally from the diary by Williams the following was remembered<sup>137</sup>:

"October 25: Well this is one day I wouldn't want to go through again When we pulled out last night with six battle wagons and six cruisers and a bunch of destroyers and a lot of PT Boats, we were told we would make a torpedo run on a Jap battle wagon. We received word that our PT boats had been beat up by Jap gun fire an would be starting our run in a few minutes? We started our run at 13,000 yards with two of our it destroyers ahead of us This was at 03:00 in the morning. Our cruiser and wagons sure opened up on the Jap ships. I'm not sure how many Jap ships were there but was supposed to be several wagons and several cruisers..."

"We were attacking the leader. We fired our torpedoes at less than six thousand yards. Just as we finished firing the first five we got first hit on the fantail.

<sup>137</sup> Williams Diary.

<sup>&</sup>lt;sup>133</sup> Carlson reported to Pfeifer as the Torpedo Officer and it was the Assistant Torpedo Officer who was killed.

<sup>&</sup>lt;sup>134</sup> From Notes of Carlson.

<sup>&</sup>lt;sup>135</sup> Bugge Diary.

<sup>&</sup>lt;sup>136</sup> From Bugge Notes.

"Our lights went out and we stopped moving. My phone circuit was cut but I thought the director had been hit. We stayed in the gun until someone came to see if we were all right and said they needed help with the wounded. I took our first aid kit and helped as much as I could. That was very little because it was dark and we had to be careful with flashlights. It sue was a mess. Dead fellow laying around in piles and the wounded with legs and arms shot off and some burned hollering for you to help them. Our doctor and one pharmacist mate had been killed so we only had one pharmacist mate.....One engine would still run so we started back....The water was coming in so hard we had to stop and throw off everything we could get off to try to keep her afloat. A salvage tug came out and pumped some water out and patched up some of the holes and towed us in...."

# 6.6.7 Crump Recalls

Crump has also recorded some less than happy memories of a friend, Arless Pack<sup>138</sup>;

"The heat was of course always unbearable down there. But that night/morning of the battle, Pack was caught in the fire below deck where the busted steam lines were located. Out of the 37 men who died, about 30 including Pack died down there.

After the night battle was over, Captain Nisewaner ordered me with another to go down to bring up the dead. All that was left of the men were the bones, and they carried them up to the top deck and put them in body bags.

When they landed in the Philippines, Nisewaner, Pfeifer, and Crump dragged the body bags to shore and gave them to the Marines and the army to give the men a proper grave.

I mentioned that Arnold Olson. Grant shipmate, told us when we visited him, that Arnold still can hear the shore waves and the sound of the body bags as they dragged them to land for the Marines and Army for proper burial."

## 6.7 Keeping the Grant Afloat

The ship was now hit, it had holes in it almost everywhere. Ships are basically a big chunk of steel, molded into a hull, which can float if and only if the integrity of the hull in maintained. That means no leaks. The Grant was leaking like a sieve.

## 6.7.1 Hamill's View

The following by Hamill records what happens next<sup>139</sup>:

"Further, they are the basis for much of the detailed accounts in various books which make mention of GRANT. Lt. Jerry Marsh, Gunnery Officer and I then went down into the After

<sup>&</sup>lt;sup>138</sup> Notes taken while talking on phone to Emmett Crump Wednesday 11/8/06 at 6:45 pm.

<sup>&</sup>lt;sup>139</sup> Hamill, Mostly Water.

Crew's compartment which was slowly flooding. We located a jagged hole close to the deck through which a six inch shell had passed, in fact the unexploded projectile was rolling about the deck and on one dive nearly pinned Jerry as he swam to the hole. In all descriptions of the 13 six inch shells that hit us from the cruiser DENVER, I must explain that as DENVER's "targets" were heavily armored battle ships and heavy cruisers, they used armor piercing shells which did not explode on contact with our 3/8 th inch steel. That was our destroyer "amour." Only when these shells hit a solid structure did they explode".<sup>140</sup>

The shells from the Denver would latter be hand carried out of the hole of the ship, unexploded, with their yellow painted tips, indicating Armor Piercing shells, and painted with USS Denver. The gifts from Bledsoe could not only be identified but counted. Each shell had to be hand removed by the remaining Grant crew, each act had the potential for disaster.

"A number went through the ship, some spent and unexploded were in our bilges till we got to the MANUS dry-dock. Actually, a considerable part of the damage GRANT sustained came from the eleven 4.7 shells from SHIGURE. The two Jap 40mm machine gun projectiles did no significant harm. We tried stuffing mattresses into the jagged hole of the After Crew's compartment. This took considerable time as we had to work under water and virtually in the dark. Such water pressures and currents as there were kept dislodging our stuffers so we used whatever we could find to prop against our somewhat pathetic patch. As water gradually filled the compartment our job became ever more difficult as we had to dive ever deeper."

"We did each have an underwater torch without which we would have been helpless, obviously we were still working in the dark. Our danger came from various objects that were floating above us as we came up for another breath. Finally, we found ourselves ducking between the overhead I-beams to get our air. At that point Jerry and I exited the After Crew's compartment and reluctantly dogged it down. We had lost it. During the half to three quarters of an hour that we spent in the After Crew Compartment we were aware of a change in the ships balance. We had established that the very lowest compartments of the ship were intact so that as the ship took on water in higher compartments she was not only settling but in time would face the possibility of capsizing."

Here Hamill will talk technically about center of gravity and center of buoyancy. These are discussed in some detail in the Appendix. The concepts become critical in understanding what is going through their heads now. Basically there are two ways to sink a ship. One, replace the air with water, namely spring a leak. In this mode the water replaces the air, it is heavier and at a critical point the ship just sinks, drops below the water and keeps dropping, men and all. Two, the ship can tip over. This happens when the natural tendency of a ship, like a fishing bob, looses the ability to "self right" itself. This "self righting" occurs when the center of gravity gets higher than a point called the metacenter, see the Appendix. This happens when water is taken in and shifts the location of forces. Hamill explains:

<sup>&</sup>lt;sup>140</sup> Here Hamill provides a first hand account of the Denver shells. In fact in oral history interviews with Crump and McGiness on 20 January 2007 they confirm this fact.

"Every ship has a "center of buoyancy" and a "center of gravity." Technically this is referred to as "GM." When the center of gravity is above the center of buoyancy a ship has "negative GM" and will capsize or will tend to, if given any impetus, to heel over. As time went by, GRANT inexorably settled, listing to port and down by the bow... In retrospect, it's clear to me that Jerry Marsh and I were not thinking too clearly. After our failure to hold the After-Crews compartment we repeated our efforts and our mistakes attempting to "hold" the Crew's Mess. Located between the forward and After Crew's compartments was the Crew's Mess, a large space with long tables at which the crew took its meals and where recreation time was spent writing letters, reading, playing card games and other pursuits. Robot-like Jerry and I again fought the impossible, vainly trying to plug another six inch shell tear in our starboard side."

The men were acting and not thinking. However they were doing something. Hamill's explanation is not technically correct but close. The center of gravity should be below the metacenter, a conceptual point which relates to the center of buoyancy. Any good naval engineer would have this concept branded in their brain, as would a captain.

"Coming up for air after groping about with mattresses and bedding to plug the hole, we'd bang our heads on various items floating about the compartment. After 30 minutes or so, we realized the futility of our efforts; besides which, the water was again at the base of the I-beams leaving us little room for breathing space."

"While Jerry and I were below, Andy had made contact with NEWCOMB, our flagship, which came alongside. It was now roughly 0745. In an emotion packed effort, we transferred 38 men who were severely wounded to NEWCOMB where they would have more expertise and improved medical assistance. Sadly, a number of these men died later as a result of their wounds. One of those transferred was our Chief Radioman Wallace K. Carlson. As I had been Communication Officer prior to becoming Executive Officer, Wally (sometimes known as "Sparks") and I had worked together and had become close friends. As Wally was passed across to NEWCOMB on a stretcher, our eyes met. I was guiding the stretcher so that I was very close. I said, "We'll see you soon friend, Good Luck." Somehow the look in his eyes told me that it would not be so. He died shortly after transfer. I'll never forget that look. ......"

"In the meantime, Lt. Jg B.B.V. Lyon, our Engineering Officer had been very much "in action." At some point BB and I had gone down into the firerooms to assess the degree of flooding. BB felt we could establish power through the after fireroom. He did feel that a key valve might be open in the forward fireroom. Against my urging, BB dove down into the black water "feeling" his way to the valve and closed it off."

"This was one of the actions taken without which we surely would have gone down. NEWCOMB cast off after attempting to tow us because forward motion increased the rate at which GRANT was taking water. Jerry and I got together again and decided, not very logically, that we'd try once more, this time into the Forward Crew's Compartment. After working there to shore up a gaping hole in the ship's side, we turned our fight to the rear of the compartment where, to our dismay, there was an additional breach in the bulkhead that separated our compartment from the already flooded Mess Compartment." The tow by the Newcomb may have caused further problems. By moving the ship was not taking in water flow and the resulting forces of that flow were applied to the ship. The break with the Newcomb was essential.

"We knew we were beaten so, with despair we dogged down the Forward Crew Compartment. Our efforts had been largely fruitless. Perhaps though, they gained us time. When we rehashed our efforts of that evening, we realized that had we given up the After Crews Compartment we might well have rigged a sufficiently tight patch in the Crews Mess so that the progressive flooding would end there. That compartment had very little water in it at the time we commenced trying to save the After Crew's compartment. When I reported to Andy that we'd been unable to hold these compartments, we realized the importance of reducing top-side weight by any means we could. Andy accordingly ordered that the port anchor and chain be jettisoned in addition to the depth charges first set on SAFE, and the remains of our smashed motor whale boat and Captain's Gig."

"With the fires extinguished and the battle over, an eerie silence settled over our "World." For the moment, shells were no longer arching over us. There were no flashes either around us or on the horizon. Just the pungent odor of disaster which so often follows fire and destruction. A frustrating need to be busy drove those men who were not involved in assisting with the wounded, or in largely fruitless damage control efforts. When the order to jettison was given, it seemed to answer a need."

This move was essential. It did two things, It lowered the total weight and thus reduce the risk of just sinking doe to weight, It also allowed a more survivable buoyancy state thus preventing a tipping of the ship and an ultimate roll over.

"There were many willing hands available to leverage overboard the heavy remains of the boats and the anchor and chain. Those who could not be involved in the main effort had to find something, anything to do. Accordingly, a few of the men grabbed anything topside that wasn't fixed to the deck and threw it overboard. The ultimate step was when our ships cook started throwing overboard his aluminum cooking gear. Even amidst dire devastation this evoked a laugh both from Andy and from me."

"During this period BB Lyon, our intrepid Engineering Officer, had been working in his partially flooded engineering spaces and had managed to get one evaporator and one engine going so that we could slowly move ourselves toward Tacloban Harbor. We were underway for roughly an hour and then all came to a halt once again. Also at this time our stalwart sisterships NEWCOMB and LEARY were standing by us and trying to take us in tow. Unfortunately this motion seemed only to increase the amount of water we were taking on."

"Thus further endangering the ship. Shortly before noon, another fire broke out amidships. We were never sure whether this additional burden was due to a welder's torch or a still smoldering fire from earlier in the day. Pungent odors gave us the sense that it could have been either one. During the early afternoon as we continued to fight the flooding, GRANT continued to settle but now more slowly. I went down in the forward paint locker well up in the bow and just behind the anchor chain lockers. Both anchors and chains had by now been jettisoned along with the
aluminum pots! There I found that another shell had blown a hole in the thwartship bulkhead so that the paint locker was beginning to flood from the compartment adjacent to it. This hole was patchable and over a period of 30 minutes I saw no further advance in the level of flooding. At one point during this time, the ship did list roughly 10 additional degrees to port. I suddenly realized, that should she continue to go, we would capsize. My thoughts were of Jean and of the daughter I had never seen and of my parents who had already lost their eldest son."<sup>141</sup>

"Miraculously, the listing stopped and then very gradually the ship came back to the roughly 17 degree list we had prior to this latest move. Later, when I returned topside I learned that a kamikaze, one of the first on record, had missed us on the starboard side and that its splash wave had pushed us over the additional ten degrees. Just as I was feeling relieved and ready to exit the paint locker which had about four and a half feet of water in it, the ship was again jarred.

"Next I heard talking and a strange but commanding voice hollered, "Get the hell out of that paint locker." Though as number two, or Executive Officer, I was not accustomed to being addressed in this fashion, I heard authority in the strange voice and I was only too happy to oblige.

"I scrambled through the hatch to run straight into a Boatswain's Mate from the ocean going tug CHICKASAW ATF 83. He had a giant hose that he shoved down the hatch once 1'd gotten out of the way. When the pump power was turned on great amounts of water were sucked from the ship. With pressure relieved on the paint locker side my patch came away and the CHICKASAW's pump went to work on the next Compartment aft. They had positioned another great pump hose down the After Crew Compartment hatch. At the same time they put welders over the side who put patches on enough of our holes to render us reasonably seaworthy. Some six hours later they took us in tow and during the early morning hours of October 26 th they placed us on a jury anchor and line in Tacloban Harbor."

## 6.7.2 Chickasaw Crewmember

The crewmember from the Chickasaw also remembers that day. The CPO Shipfitter Bryce Wilde who was on the USS Chickasaw ATF-93 wrote Bill Nagle on 30 June 1986:

"I was a diver aboard the USS Chickasaw, ATF-93, during the actions related to the invasion of Leyte Gulf, beginning Oct. 17, 1944 when we went in to start clearing the way for the invasion Oct. 20. After the big battle of south Leyte, we were trying to fight fires on the USS Allen when she took the kamikazes and went down. We went to the USS Killon, she said she could hold a while but USS Grant needed help."

"We went alongside the Grant and went to work. I heard the story—Grant's went through the Jap screen under withering fire, to torpedo range on the big-un and held position while a TM 3rd Class came up from ICG to replace the whole torpedo crew and fire the fish. then the Grant

<sup>&</sup>lt;sup>141</sup> Jean was Hamill's wife.

coming back through the Jap screen caught a broadside of armor piercing 6" from a US light cruiser (name censored)<sup>142</sup>."

"I heard about a Water Tender who came up to the hatch from the boilers carrying a hot 6" shell---and other stories between dives. The patching is something of a blur---you had so many damn holes!! The USS Killon took a suicide plane under # 2 mount. I put out a 7' by 11' patch. that's easy to remember---I lost a lot of sleep because I didn't hear about the men in the Aid room."

"My doctor....F. R. First, Jr., M.D., was the Ship's doctor who came aboard to replace the Doctor killed early in the action. Dr. First and I have traded sea-stories for some 15 years, always coming back to the big one---USS Grant. Dr. First would be interested in rejoining the Crew for the reunion....."

## 6.7.3 Hamill Continues

Hamill continues his memories from that day<sup>143</sup>:

"Though we still had a number of flooded compartments, some containing dead shipmates, our hull was to all intents and purposes sound, water tight and in no danger of foundering. Lights and power were partially reestablished. We then took such action as we could to clean up the ship. The crew was still in a state of shock, abetted later that morning by a memorial service held on the fantail. It was a sad sober time. NEWCOMB loaned us her whaleboat which I used to make a quick trip to the WASATCH, our Task Force 77 flagship, anchored not far from us. We were provided with the wherewithal to serve a solid meal to all hands."

"During the day we kept busy cleaning up as best we could and adjusting and readjusting our power plant so that we could, in emergency, kick ahead or astern about five knots on one engine and one fireroom. Again B. B. Lyon's successful efforts to provide this capability ultimately saved the ship. As the day wore on there were more and more threatening reports of an impending typhoon. At dusk, amid rising winds, we were warned that indeed a typhoon would strike Tacloban Harbor around midnight."

"All hands turned in early as we'd not really slept for 48 hours. After three hours, we were forced to wake the crew and go to General Quarters or battle stations as the wind by 2300 hours was humming through the rigging and our jury rigged anchor was beginning to drag on the bottom. From then on till morning, we spent a night nearly as bad as the night during which we'd been smothered by gunfire. With visibility nearly zero, we could identify the outlines of other ships anchored close to us in the harbor."

<sup>&</sup>lt;sup>142</sup> He means the USS Denver. Apparently the men did not know that this had been made public. It was in Morison and in Karig. However the Bates Report was classified until 1978.

<sup>&</sup>lt;sup>143</sup> Hamill, Mostly Water. pp. 131-134. Hamill had lost his older brother in enemy action just a few months earlier. At this point his is starting to reflect on things, which meant that they were coming out of the second by second crises mode, they now just had one problem, a big one.

"I took bearings on those to leeward and then Andy would determine whether we should kick ahead or astern on our one engine to bring the path of our slowly drifting GRANT either to starboard or to port of the next ship to be avoided. As the wind swung with the typhoon's progress, it's direction gradually changed as did the direction in which we drifted. With dawn came a shred of reality and blessedly a lessening of the wind. On several occasions during that horrible night, we received reports that there was near panic on the part of crew members who were convinced that the ship was about to plummet to the bottom. On three occasions, Andy felt that the ship was about to flounder."

"Accordingly, we had all hands assemble on deck where they would have optimum chance of getting "off' should the ship go down. Our magnificent Chief Quartermaster Watkins, who had roughly 30 years in destroyers, was sent down three time to reassure the crew that GRANT would prevail and that there was little imminent danger. When Watkins returned from his third trip to give me a report, I got a strong whiff of whiskey from him."

"Sure enough, we found out later that the old scallywag had got into the medicinal whiskey and had drained our supply. As we were desperately maneuvering to avoid one of the last of many ships that were in our way, we had our one light moment of the night. Just before dawn, a PT boat came up to us on our port side, aft. They asked if they could tie up to us as their anchor would not hold. In the very dim light and from their angle of approach they were not aware of our damage, nor had they realized that we too were in dire straights as we drifted round the harbor. We hollered at them, "Happy to have you! Be our guests but at your own risk. We have no anchor and we're drifting badly." The PT apologetically wished us well and departed seeking a "safer" haven...."

## 6.7.4 Nisewaner Recalls

Nisewaner further recalls:

"NEWCOMB came alongside to render assistance and then shoved off when a salvage tug came alongside and saved us. They pumped out water, helped us do patchwork repairs, and loaned us a Kedge anchor. When we were in immediate danger of sinking, we threw overboard everything we could to lighten the ship. This included both anchors and chains and a heavy practice-loading machine. We only saved five to ten rounds of ammunition per gun."

"This lightening of the ship probably saved us from turning over. We were towed to Manus and a makeshift repair yard. En route, we had a man fall overboard from the oily, sloping deck which had a list to starboard of 12 feet. (We had already lost one other man who was electrocuted while repairing damage.) So, contrary to policy in submarine waters, I broke the towline, made a wide circle, and kept my fingers crossed. Luck was with us and we picked up our man on the first pass and then went back to our towline. Then we had another close call. We dropped our remaining anchor in the designated spot which was near an ammunition ship."

"A few hours later, the tug picked us up and we proceeded to the repair yard. Just as we were entering the floating dry dock, we heard a mighty boom and saw clouds of smoke in the area we had just left. The ammunition ship had blown up with 100 percent loss of life. Every ship within 800 yards was badly damaged; the unexploded shells flying through the air did immense damage. Eighty minutes before the explosion, we had been anchored just 300 yards away."

Grant was then to be towed by tug to Manus for repairs and then back to the US for an overhaul. Having survived the battle and the typhoon the ship now had to traverse 1,700 miles of ocean to Manus and then another 4,100 to Hawaii, and then another 2,400 to San Francisco, at Mare Island. The saga would continue.

## 6.8 CO USS A. W. Grant "Comments and Recommends"

It is very telling to read what Nisewaner says after the battle in his official report. The details are shown below<sup>144</sup>.

# "1. Own battle damage was terrific due to shellfire from Japanese ships and our own 6" cruiser fire."

In the official report prepared shortly after the battle Nisewaner states that the 6" shells were from the Denver. Yet he does not expressly state the Denver, yet men on the ship had retrieved armor piercing shells marked Denver. This pulling of a punch may have made the point without direct confrontation.

"2. Damage control met its acid test in the critical period following damage by gunfire in the night action against the enemy. With telephone communications shot away and flooding extensive but with the ship fortunately able to keep 440 AC power aft, the following practices observed by this ship proved invaluable:

- a. Casualty telephone circuits with 4-plug jack boxes installed on both sides of main deck approximately every 20 frames quickly solved communication difficulties between bridge, engine room, and steering aft. Lines were quickly run and this type of communication is still in operation since regular lines have not been repaired. No difficulties in his use have been encountered. Communication with repair parties was by messenger only.
- b. After observance of battle damage and flooding to other ships, this command has always had one portable electric three-outlet manifold suitable for 440AC carried in the repair lockers. This allowed quick hookup of all three electric submersible pumps at one spot and was a material factor in saving ship from sinking due to time saved in rigging the necessary pumps. Hereafter, one such manifold in each repair locker is recommended for use in rigging own or borrowed electric submersibles in emergencies. Invariably in the case of flooding it is not one pump but all available pumps that are required at one spot.
- c. Exceptionally long leads of 100' were previously installed on all electric submersible pumps on board. With power in only the after part of the ship, the value of long leads is apparent if pumps are to be moved about.
- d. Lugs had been installed on all casualty power cables to insure speed as well as ease in rigging. This feature, combined with frequent drills, demonstrated the high efficiency obtainable in use of casualty power lines.

<sup>&</sup>lt;sup>144</sup> See

e. Through means unknown to the Commanding Officer, slightly over 200' of "extra" casualty power cable had been obtained and stowed for ready use by the electrical officer on board. In view of the extensive damage involved, all of this "extra" cable was used and additional lengths borrowed from other ships. In light of this experience it would appear that regular ship's allowance of casualty power cable is insufficient."

This statement is in many ways classic Nisewaner, it states that the right thing was done despite Navy procedure dictating otherwise.

- f. "In both engine rooms of this ship the ship's force had permanently installed a hook-up from the casualty power leads to the main switchboard through a cut-out switch. The cut-out switch was tagged and taped open. This eliminated approach to a hot switchboard with casualty power under adverse conditions and was a definite time saver in an emergency.
- g. Portable battle lanterns had been previously installed over wardroom table. With all regular lights out, this proved invaluable in maintaining the wardroom as forward battle dressing station. Almost double the allowed quota of battle lanterns was on board and they were all used. It is recommended that allowance of battle lanterns be increased. Their efficiency even under water proved remarkable.
- h. The portable gasoline handy-billies were used to their fullest extent but unfortunately only the prescribed allowance of 10 gallons of gasoline was on board and this was insufficient. With each pump using one gallon of gasoline approximately every 17 minutes, the prescribed allowance is obviously too small. All our pumps failed at a critical period from lack of gasoline.
- *i.* This ship's damage control check-off lists under the follow-up of a zealous and competent First Lieutenant worked perfectly. There was not one case of progressive flooding in a compartment not punctured or damaged by shell fire.

Again Nisewaner commends his officers and crew in this report.

- *j.* The damage control parties erred in attempting to control all damage. Instead of assuming that certain compartments had to flood and thereby devoting their exclusive energies to repairing damaged bulkheads and sprung seams to adjoining compartments, they fought outside holes only, thereby losing ground when their patches refused to stay put.
- k. This ship also had insufficiently pre-fabricated patches to repair battle damage. Mattress patches backed by shoring failed to hold. An assortment of ready-made box or caisson patches and metal patches of the type that can be inserted from the inside, expanded, and pulled up flush against the hull are recommended as "musts" by this command.
- 1. Frequent drills of all types of damage control are a "must" and junior personnel should be made to take charge. This ship lost the electrical officer, who was also assistant damage control officer, the CEM, one EM1c, and two fully qualified EM strikers in the first enemy salvo, yet all casualty power cables were installed without a hitch. This was due to the personal ability and integrity of the remaining Electrician's Mates, aided by the Gunnery officer, and not to any drills anticipating such a casualty.

Finally Nisewaner again commends his lost crew and also stresses the need to have a broad base of training. This report written while the agony and pain of the battle was still fresh shows the insight and dignity of a captain who is both proud of his men and is also an extremely competent leader. It also shows a man for whom the truth is essential.

## 6.9 The Other Fletcher's in DESRON 56

The other two destroyers in DESRON 56 Section 1 were the Leary and the Newcomb. They were sister ships to the Grant and are shown below. The Newcomb was the flag ship for Captain Smoot the head of DESRON 56.

**USS** *Newcomb* (**DD-586**) was a *Fletcher*-class destroyer in the United States Navy during World War II. She was the only ship named for Commodore Frank H. Newcomb of the United States Revenue Cutter Service, Congressional Gold Medal recipient from the Spanish-American War. *Newcomb* was laid down 19 March 1943 by Boston Navy Yard; launched 4 July 1943, sponsored by Mrs. C. C. Baughman; and commissioned 10 November 1943, Commander L. B. Cook in command.

*Newcomb* shook down in the West Indies for a month, then made passage to the Marshall Islands, arriving 4 April 1944 for two months duty on antisubmarine patrol off the Japanese held Mille, Wotje, and Jaluit atolls. She next joined the assault on Saipan as flagship for the screen from 29 May until 5 August, serving as fire support and patrol ship at both Saipan and Tinian. On 22 June, while guarding transports, she and *Chandler* (DMS-9) sank Japanese submarine *I*-*185*, and on 4 July her well-directed fire broke up a Japanese banzai attack north of Garapan on Saipan.

Operating in the Fire Support and Bombardment Group for the assault on the Palaus 6 September to 1 October, *Newcomb* fired 23 separate shore bombardments and also covered underwater demolition teams providing bombardment control spotting. As flagship of Destroyer Squadron 56 (DesRon 56), *Newcomb* joined in the Leyte landings 12 October to 4 December, covering underwater demolition teams and firing preinvasion-bombardment, call-fire, night-harassing and illumination missions.

Her squadron made a night torpedo attack in the Surigao Strait phase of the Battle for Leyte Gulf 25 October. At least one of her 5 torpedoes struck battleship *Yamashiro*, sunk in this action. Closely straddled but not damaged, *Newcomb* went to the aid of stricken *Albert W. Grant* (DD-649), providing medical aid and a tow out of the battle area. In this classic sea battle, *Newcomb* and her sisters played a key role in the great American victory which insured the success of General Douglas MacArthur's return to the Philippines, and effectively ended major Japanese naval threats for the remainder of the war.

Often under fire from Japanese aircraft, several of which she destroyed, *Newcomb* continued service in the Philippines, engaging Japanese shore batteries at Ormoc 9 December while screening landing craft, fighting a convoy through heavy enemy air attack to Mindoro 19 through 24 December, and driving off 2 would-be kamikazes during the Lingayen landing 6 January 1945. She covered operations in Lingayen Gulf through 24 January, then prepared for duty as

fire support ship at Iwo Jima from 10 February, where she covered minesweeping for three days prior to the landing. During the invasion the destroyer engaged shore batteries and fired pinpoint-accurate bombardments of inestimable assistance to troops ashore. She again engaged a Japanese submarine 25 February, with unknown results.

Departing Iwo Jima 10 March, *Newcomb* joined the Okinawa assault force 11 days later, and again covered underwater demolition and minesweeping operations as well as antiaircraft and shore bombardment until 6 April, when she was screening minesweepers off Ie Shima. At least 40 enemy aircraft were observed in the area during the day, and at 16:00 suicide attacks began. Though handicapped by a low ceiling, her gunners were able to drive off or shoot down several attackers, but over a period of an hour and a half, she was struck five times. With a skill and fighting spirit which won them a Navy Unit Commendation, her crew worked furiously to repair engine damage and extinguish fires, while continuing to fight their ship and maneuver to avoid further crashes. Aid was rendered by *Leutze* (DD-481), herself struck by the fifth kamikaze skipping across from *Newcomb*, and *Beale* (DD-471). Indomitably afloat, fires and power out, with 18 killed, 25 missing, and 64 wounded, *Newcomb* was towed to Kerama Retto by *Tekesta* (ATF-93).

Repairs to her hull were made by *Vestal* (AR-4) under frequent enemy air attack, and 14 June she left under tow for Saipan, Pearl Harbor, and San Francisco, arriving 8 August. The end of the war ended further repairs, and *Newcomb* decommissioned 20 November 1945. Stricken from the Navy List 28 March 1946, she was scrapped at Mare Island Navy Yard in October 1947. *Newcomb* received 8 battle stars for World War II service.



Figure 63 DD 586 USS Newcomb<sup>145</sup>

<sup>&</sup>lt;sup>145</sup> DD 586 USS Newcomb; Laid Down 1943-3-19 Boston Naval Shipyard; Launched 1943-7-1 Boston Naval Shipyard ; Commissioned 1943-11-10 ; Decommissioned 1945-11-20 ; Stricken 1946-3-28 ; Sold for scrap 1947-10-1

The Leary is also shown below. The USS *Richard P. Leary* was laid down 4 July 1943 at the Boston Navy Yard, Boston, Mass.; launched 6 October 1943, sponsored by Mrs. George K. Crozer III; and commissioned 23 February 1944, Commander Frederic S. Habecker in command. Following shakedown off Bermuda, *Richard P. Leary* sailed via the Panama Canal for Pearl Harbor. After escort duty to Eniwetok and Saipan in July, she supported the landings at Peleliu 15 September 1944, and at Leyte 20 October. During the Battle of Surigao Strait on the 25th, she launched torpedoes at the Japanese battleship *Yamashiro*, splashed one enemy plane, and guarded the damaged *Albert W. Grant* (DD-649). While patrolling off Leyte Gulf on 1 November, she rescued 70 survivors of *Abner Read* (DD-526).

During the Lingayen Gulf campaign, *Richard P. Leary* shot down one enemy plane 6 January 1945, and rendered fire-support for the landings on the 9th. She again supplied gunfire support for the landings at Iwo Jima 19 February and for the landings at Okinawa 1 April. During the night of 6–7 April she escorted the damaged *Morris* (DD-417) to Kerama Retto, Okinawa Gunto. Upon completion of duties at Okinawa her next assignment took her to Adak, Alaska, in August. After serving in the Aleutians, *Leary* sailed for Japan arriving at Ominato, 8 September. She departed Japan on the 30th, and steamed to San Diego, Calif.



Figure 64 DD 664 USS Richard P. Leary<sup>146</sup>

## 6.10 October 26 and the Burials

Those killed at that time are listed in the Table below. The main losses were in the Number 1 Boiler and Engine rooms, the entire radio shack, the torpedo mount hit, and men on deck. The

<sup>&</sup>lt;sup>146</sup> DD 664 USS Richard P. Leary; Laid Down 1943-7-4 Boston Naval Shipyard ; Launched 1943-10-6 Boston Naval Shipyard; Commissioned 1944-2-23 ; Decommissioned 1946-12-10 ; Commissioned 1959-3-10 Japanese Navy ; Loaned 1959-3-10 ; Stricken/Sold 1974-3-18 ; Decommissioned/Stricken 1974-3-18 Japanese Navy ; Sold for scrap 1976-1-1 Japanese Private

losses can be seen in the number of MM and WT from the engine and boiler, the RT from radio, and TM from the torpedoes.

Table 7 Men Lost on Grant		
Last Name	First Name	Position
Alexander	Theodore Leroy	MM
Asmore	Floyd Vernon	MM
Brannan	Robert Joseph	EM
Cahiea	William R.	F
Cairns	Clyde A.	MM
Carlson	Wallace K.	CPO RM
Carson	Clyde	Ensign, Torpedo
Cheek	Daniel Smith	S
Couette	Armand N.	ТМ
Cunningham	Edwin James	MM
Davis	Wilson Howard	CPO EM
Ellis	Milford	CPO WT
Kuebker	Kenton W.	Bkr
Kusheloff	Joseph Myer	RM
Lee	William Danual	S
Luketic	Anthony Rudolph	F
Markham	Walter	MM
Martin	Joseph Eugene	PhM
Mathias	Eugene	RM
Mathieu	Charles Akin	Lt jg Medical
McElroy	Warren M.	CPO MM
McGee	James Carey	S
McInturff	Thomas Samuel	S
Messer	James Henry	S
Noel	Claudius	RM
Pack	Arless A.	F
Rathburn	Frederick H.	ТМ
Roberts	Earl Franklin	MM
Rothe	Donald Terrance	F
Sarver	Milton Dwight	S
Selleck	William Marrtin	RM 1C
Springer	Fred W.	WT
Stephenson	James Winfred	MM
Surprenant	Donal Rosaric	CPO WT
Ward	Francis Irvin	CPO MM
Weber		MM

The men killed in action were to be buried on Leyte. Their bodies were assembled on the bow of the ship. The fantail had been hit. They were to be transferred by boat to the shore and from there slightly inland to a cemetery prepared by the Army. It was there that they were to be buried. Ensign Pfeifer led the crew members on the detail ashore and up to the cemetery. The heat and humidity were oppressive and the Army had facilities to bring the bodies to the cemetery.

The way up to the burial ground was one sinking path in mud after another. The Army were somewhat prepared with combat boots but sailors were less prepared, mud just oozed

everywhere, and there path up to the cemetery was a slippery slope. Looking at the graveyard one saw a temporray and hastily made plot of land filling rapidly with the dead.

There were more coming from the battle off Samar as well. This graveyard was nothing more than a cleared part of the jungle, with quickly prepared grave markers. There was a strong sense of added sadness to have to leave the men here, and many thought that burial at sea, as all sailors understand, would have been more dignified.

The picture below shows the preparations on the bow of the Grant just before the transfer.



Figure 65 Burial

There were to be more losses and more burials. The men shown above are the few who had managed to stay physically out of harms way. They lost their comrades to both enemy and friendly fire and also to the many men injured and transferred off the ship.

### 6.11 Details of the Action

The prior section depicts the battle of Surigao Straight from a broad general picture. To understand the relationship between the Grant and the Denver one must see the battle from the perspective of the Grant. It was the Grant that was the only ship struck in the battle of Surigao, and most of the hits were from the Light Cruiser Denver, under the direction of its captain, Captain Bledsoe. It is also a story of how things can unravel in the strangest ways as time passes. The basic facts are these:

- 1. Grant was in DESRON 56 and was the last of three destroyers under Captain Smoot to deliver torpedoes towards the oncoming Japanese fleet.
- 2. The three destroyers, the Grant, Leary and Newcomb began their run at about 03:51 on the 25<sup>th</sup> of October.
- 3. The three launched torpedoes at about 04:02.
- 4. At 04:04 Grant was hit by shells from Japs.
- 5. 04:04 Denver Main battery cease firing shift target to bearing 165°T, range 8000 yards.
- 6. 04:04 1/2 Denver Main battery director II on target but target bears 172°T.
- 7. 04:06 Denver Main battery commenced firing, 15 second salvos, full rudder control (In all probability it was not these shells that hit us as there'd not be sufficient time for them to have reached us, been noted and called to the battle line's attention.)
- 8. At 04:07 Grant hit by eleven Armor Piercing shells from Denver
- 9. 04:08 Denver Main battery ceased firing. Word over TBS for ships to cease firing. One of our own destroyers is being fired upon.

The time from 03:51 through 04:09 are the critical periods of time. There are several key factors which also must be recalled. Specifically:

- 5. Oldendorf had prepared a detailed battle plan. This included the use of the T formation and the use of destroyers in a manner which extended the strategies developed by Arleigh Burke eighteen month earlier. The use of all elements; destroyers, battleships and cruisers, required a clear understanding of who was to be where and when.
- 6. The CIC had evolved into a well accepted and fully operations part of any battle. The CIC was not the hub of any command and control effort and using the battle plan, using the radar and other external methods for target positioning, and using the plotting board techniques perfected by Burke and his fellow destroyer men, of which Grant had been a part, the risk of friendly fire threats were to be minimized and hopefully eliminated.
- 7. The OTC, the Officer in Tactical Command, in the case of the Denver it was Oldendorf. The OTC was to issue the command to fire and to do so in accord with the established battle plan. The OTC command came at 03:51.
- 8. The radar systems were evolving and many of the battle line ships had Mark 8 systems, some like the Denver had older systems, the Mark 3. This would also cause a problem.

The Mark 8 are higher frequency and has better target resolution, clutter control, and target ranging. The radar officer in the CIC would or should have known this.

The Mark 3 and Mark 8 are compared in some detail the table below. The system are critical to the understanding of this battle. The Mark 3 and Mark 8 were used in conjunction with the Mark 38 and Mark 34 Director respectively, the optical unit combined with the stable platform or reference plane.

These four factors should have assured the Grant and its sister ships protection from friendly fire is reasonable measure had been followed. It seems clear that Oldendorf had put such measures in place. However it also appears that there may have been total gross disregard for these measures.

In the late 1990s Hamill writes his memoirs while at sea. In this document Hamill states:

"....an ex Navy man who seeing our reunion sign in Ormand Beach at the hotel where we met in 1992, joined us and announced that he had been on DENVER the night we were hit. He reported having heard an exchange between the Captain on the bridge and Exec in CIC. DENVER's Captain (Bledsoe) on his bridge PPI Scope had spotted pips, which appeared to be destroyers, leaving the enemy formation in torpedo attack mode and headed on parallel track.

He (Bledsoe) told the Exec to take them under fire. The Exec opined that these were "Friendly" ships and that he would have to verify the IFF...... The Captain, according to our friendly sailor, shouted at the Exec. "Open fire that's an order!" The rest is history. ...... Andy Nisewaner had been told that DENVER's skipper (Captain A. M. Bledsoe) and Admiral Kinkaid's Chief of Staff (Commodore Val Schaeffer) had been class mates, close friends and possibly roommates at the Naval Academy.

Thus we could easily be looking at a cover up by Kinkaid's Chief of Staff. Additionally, there's something wrong with a skipper who will fire one unauthorized shell seconds before another ship is to open fire so as to have the "honor" ... of firing the opening gun of the Philippine Campaign."

Capt Nisewaner is awarded the Navy Cross for his actions in Surigao. However Capt Bledsoe is also awarded the Navy Cross at the same time for:

"The Navy Cross is presented to Albert MacQueen Bledsoe, Captain, U.S. Navy, for extraordinary heroism as Commanding Officer of the cruiser, U.S.S. Denver, in her action against the enemy from 17 to 29 October 1944. During this time the U.S.S. Denver supported the landing of our forces on Dinagat, Suluan and Leyte Islands, and on <u>24 October participated in</u> the defense of Leyte Gulf, which resulted in sinking of at least one enemy battleship, a cruiser and six destroyers. Through his professional skill and capable leadership, his vessel performed all missions assigned to her in a highly efficient manner and contributed materially to our success. His conduct throughout was in keeping with the highest traditions of the Navy of the United States." It is not at all clear what Bledsoe did in the Denver to sink the ships. In fact, the entire Japanese fleet under Nishimura consisted of two old battle ships, one cruiser and only four destroyers. It was clear that Newcomb and Grant got the battleship, and thus crediting Bledsoe with this is not only a fallacy but commences the alleged cover-up.

Using data from the book by Morison, one can attempt to reconstruct the detailed movements of the three ships during the battle. This is accomplished in the charts below. It is difficult to achieve a complete and accurate level of detail since the Morison data has some internal conflicts regarding position locations. Further the details provided in the action reports as to true bearings and ranges may be subject to modifications for reasons which we may never know. However, notwithstanding, one can ascertain the general details on a minute by minute basis. The following charts provide the detail.

First, the chart below shows the positions in latitude and longitude of the three ships from 03:51 through 04:09. Each dot represents an added minute starting from 03:51. This eighteen minute period is the key period of the battle and the events. The Denver is moving eastward with the other cruisers and is firing from 03:51 onward. It does not commence firing on the Grant until 04:07. By that time the Grant and Leary and Newcomb have started northward again returning to the main group. On the SG radar there would be a cluster of multiple returns, and the ranges and the bearings would clearly marked the three returning ships. Moreover the order of battle would have informed each CO and each ExO in the CICs what to expect from the "friendlies". Thus, the CIC, particularly the ExO would have know what was friendly and moreover the CIC would have this information on its very own plotting board.





The actual plot from the Grant is shown below as provided by Hamill. This plot shows general agreement with the analysis in the above figure. There are a few small variations but in general they agree. The speed of the Grant was 27 knots and this was 15 yards per second. At a backoff of 300 yards, a 20 second backoff, the Grant was very close to the Leary who was also 300 yards from the Newcomb. Thus on a radar screen using the PPI on the SG radar these would appear as three separate targets. However with the Mark 3 radar on the Denver Director, there may have been merging, namely the three could have appeared as a single dispersed target. However the Denver from the plan of attack would have known that the Grant and the other two destroyers in DESRON 56 were retreating after their attack. It is clear from the Denver log that this was the case.

ENCLUSURE A

Figure 67 Plot from Hamill on the Grant

The following chart depicts in closer detail the relative positions by minute of the Grant and the Yamashiro for the period 03:51 thru 04:09. This set of tracks just shows the Grant and the Yamashiro. The abrupt course change from 270 to 0 T should be smoothed but it makes no significant difference. The plot also shows the closeness of the Grant and the other destroyers to the Yamashiro. It must be remembered that the Grant as last in line actually was the destroyer which approached the closest to the Yamashiro.



Figure 68 Plot of Denver, Grant and Yamashiro

The bearings of the two ships, the Grant and the Yamashiro can also be plotted. They are shown in the following figure. The figure uses the Morison data and shows a bias of bearings. Perhaps this can be modified by changing the position of the Denver to make the bearing the accord with the battle report from the Denver. The figure dos show the closeness of bearing and the actual crossing of the bearing as the two ships close and then depart. On the Mark 3 this may have caused some merging but on the SG scope it would have remained separate.





Figure 69 Relative Bearings of Grant and Denver

The following chart depicts the difference in bearing for the Grant and the Yamashiro in and at the time period of concern. The closeness is a matter of 10 degrees plus or minus and the bearing difference is changing rapidly.





The ranges are shown in the following Figure. Based upon the data from Morison and the data from the Grant itself the closeness is significant. At tie time of torpedo launch the two were separated by 6900 yards but it appears from the trajectories that they got even closer as the destroyers started into their turns. The closeness of range could only be off set by the difference in bearing.



Figure 71 Range of Grant and Yamashiro from Denver

The question then is why did the Denver fire upon the Grant and if it did was there some attempt to cover this up using what could best be called the old boy network. Friendly fire is a common occurrence in the battlefield. However, Oldendorf was a good planner and his must have assigned a clear plant to each of his ships, especially the battle line ships and their support. They all knew of should have known that there DESRON 56 ships were potentially in harms way since that was their mission. However, the plot seems to thicken when Kinkaid recites his view of the battle.

In the Naval Institute book, PACIFIC WAR REMEMBERED, An Oral History Collection by John T. Mason Jr., Mr. Mason, a holder of a doctorate in theology, holds himself out as an oral historian, and in his view the oral historian merely records what someone says and then reports its verbatim. Mason's view is akin to what a Journalist does, but without journalistic standards and with no corroboration. Mason further assumes that he has no liability for reporting what utterance he records no matter what has been uttered to him. More importantly the Naval Institute takes no responsibility for such utterances. Oral History is notoriously in error and in many cases can be very self serving. As any historian know, as does any lawyer, physician or engineer, one must seek the truth, if it can be found. Mason as a theologian seems oblivious to this reality of professionalism.

Mason presents an oral history from Admiral Kinkaid, about fifteen years latter and twelve years before the Admiral's death. In this history Kinkaid accuses the Grant of not following orders.

Nisewaner in a letter to Mason on 30 October 1989 states as follows:

"It is inevitable that there will be inaccuracies in the recollections of those who are asked to remember important and emotionally charged episodes from their lives and experiences. It is inevitable also that there cannot be full verification of statements and their content. Despite this, we are gravely concerned that apparently no effort was made to check the following paragraph from page 280 of your book <u>The Pacific War Remembered</u> as, for posterity, it condemns Grant.

"The one thing that went wrong for us was during the attack by <u>Destroyer</u> <u>Squadron 54</u>, which was coming down from ahead. Its orders were clear enough. When the destroyers had fired their torpedoes they were to turn east and hug the shore on their way back north, so that \_they would be clear of the gunfire from our battleships and of the Japanese gunfire. <u>For</u> <u>some reason or other one destroyer</u>, the USS Grant, didn't comply. She "turned and went directly north, and she got in the line not only of Japanese gunfire but of ours. She was very badly shot up. It was quite remarkable that she didn't sink. She was eventually towed to the gulf with an enormous number of dead and wounded in her. But that was the only mistake among the screening vessels that I know of.""

The quote from Kinkaid as stated by Mason is:

"For some reason or other one destroyer, the USS Grant, didn't comply."

If one looks at the UCMJ one sees article 92 which states:

#### 16. Article 92— Failure to obey order or regulation

Any person subject to this chapter who— (1) violates or fails to obey any lawful general order or regulation; (2) having knowledge of any other lawful order issued by a member of the armed forces, which it is his duty to obey, fails to obey the order; or (3) is derelict in the performance of his duties; shall be punished as a court-martial may direct.

Specifically failure to comply, read it as obey, is punishable under Article 92 and is a crime under the UCMJ. Thus Mason has accused Nisewaner of committing a crime under UCMJ Article 92, and since Nisewaner was never convicted of such a crime, since frankly none ever existed, then Kinkaid uttered a falsehood, and Mason as the publisher of the falsehood is liable per se for defamation of any and all people he knowingly defamed. This is the simple legal tort of libel. Mason is clearly liable for libel, he knew or should have known what Kinkaid, an aging Admiral, had said. His defense was that he was just recording what was said. If he were a journalist there may be some defense, however he is holding himself out as an historian and as such has a much higher duty, and it seems evident that such a duty is foreign to him.

Nisewaner continues in the letter to Mason on the same date:

"Section 1 under Captain Smoot steamed directly at the oncoming battle line swinging in column to starboard in order to fire. Simultaneously the enemy column turned to port. At 0403 Newcomb, Leary and Grant each fired 5 torpedoes while on course 280. steaming in close order column at a range of 6900 yards, with Smoot's ships virtually intermingled with Japanese screening destroyers, running on a parallel course. So close were they that subsequently, after receiving fire from our own battle line, Grant was struck <u>11 times with 4.7 shells and several times with 40mm machine gun shells from the Japs</u>. Accordingly Smoot ordered a turn to the north.

At 04:07, while swinging north, Grant came under fire from Denver. At 409 with power lost and shells continuing to devastate Grant, remaining torpedoes were launched as they presented a further threat to the ship. At no time did Grant act independently. She was at all times in formation maneuvering in consort with the other two ships of Section 1.

The "mistake" of the evening occurred, not in Grant, but in Denver where there were reports of confusion in her Control Information Center. Denver in reality had additional time to assure correct IFF-identification. She must have tracked Smoot's ships as they merged with the Japanese formation in carrying out their order to attack with torpedoes. Grant was close to 20,000 yards from the American battle line when she was hit. Furthermore, at the moment Denver's main batteries were ordered to open fire, Smoot's section was on a westerly course, just preparing to make a swing to the north."

This statement requires a bit of clarification. First the battle Line is the set of battleships, which were well behind the cruisers. This would account for the increased range of 20,000 yards. The battle ships were a good 6,000 yards behind (ie to the North of) the cruisers, and specifically the Denver. The range to the Yamashiro from the Grant may be closer to 4,000 yards rather than the 6,200 stated by Nisewaner if one uses the Morison data. However one should use Nisewaner for adjustment since Morison was using second hand data.

John Miller the Managing Editor of the Proceedings of the Naval Institute replies to Nisewaner as follows in a letter of 9 November 1989 in response to Nisewaner:

"Perhaps Admiral Kinkaid just remembered what someone <u>who was covering for the Denver</u> <u>had told him</u>. Who knows? At any rate, you hit the important point: Oral history is not history until it is corroborated. I expect you'll hear from Tom and John Mason.

Nisewaner never even implied that "someone …was covering for the Denver…" This statement is what seems to start the process. The facts were that the Denver did fire, that it did hit the Grant, and latter that the Captain did knowingly fire on the Grant despite having been warned that friendly ships were in the path. In fact as stated the CIC would have clearly have indicated that, as Hamill who ran the CIC on the Grant as ExO would have known. There was no difference

between the CIC of a destroyer, a cruiser or a battleship, the Navy had made them identical. Why then did Miller, a Marine combat veteran of Viet Nam, a retired colonel, even say this is so short a note?

Nisewaner responds to Mason:

"As another counter to Adm. Kinkaid's defamatory remarks, the ALBERT W. GRANT had in the C.I.C. the evening of the action the exceptionally competent Lieut. Hunt Hamill, Executive Officer, later pre-eminent in the business world and one John Cody, the senior plotter. John Cody was a practicing attorney before WW II, was a mature man of keen intelligence and one who

is still practicing law at almost the age of 80. Both are fully cognizant of the actions and plotted track of the ALBERT W. GRANT the evening of the action. Hunt Hamill has in possession the "actual" plotting sheet and a copy of the ship 's log during the event.

John Cody, on being sent a copy of Hunt Hamill's initial letter concerning the grossly inaccurate statement doing such a disservice to a gallant ship and its men, replied, "In all my years of practicing law I learn every day that nothing is more demeaning than to present statements to a trial or appellate court that are not based on facts derived from hours of investigation and research - hence, I truly appreciate your and Hunt's letter of sharp criticism. ... Of course the book will always be in the public domain and public knowledge and that means that it will never be corrected."

Also still alive and able to refute this stupid and demeaning statement of Adm. Kinkaid in regard the ALBERT W. GRANT is the Officer-of-the- Deck the evening of the action, Lieut. B. B. V. Lyon, now a semi-retired Episcopal Minister in Fremont, California, and the Assistant O.O.D, Lt(jg) E. Russell Kendall, now an outstanding attorney with the firm of Vinson and Elkins in Houston, Texas. All are fully cognizant of what the actions of the ALBERT W. GRANT were the evening of the engagement in Surigao Strait and NOT wildly guessing about what the actions were from a distance of space and time."

On March 12, 1990 Miller from the Naval Institute replies to Nisewaner:

"This brings us to a point I found particularly offensive: the "in harm's way" argument. I don't need lectures about how things change when one is "in harm's way." I have spent two years in harm's way--every miserable day. And the "harm" is supposed to come from the enemy--not from bungling compatriots. The requirement for professional competence does not go away in combat--it is intensified. In the first letters, Hamill fanged the Denver for sloppy IFF work (despite adequate time) and you alluded to a gloss-over of the "unfortunate" firing by the Denver. From what I can tell, this resulted in damage to your ship and death for some of your sailors. What did you tell their parents? That the Japs did it? The most disturbing aspect of this whole mess is not the cover-up, but the fact that at least two officers of the A.W. Grant not only recognized it but went along with it. And yet you are calling for a "public apology" from a latter day oral historian. Get real! Your real enemy is not John Mason. He just reported what Admiral Kinkaid said", Your real enemy is not the late Thomas Kinkaid. He just said what he believed--and in the case of the A.W. Grant, what his staff told him. <u>Your real enemy is the s.o.b. who lied to the 7th Fleet</u> <u>commander, and all those who kept the lie alive for 45 years with a conspiracy of silence.</u> When you point a finger at anyone, always point back at you. three other fingers.

To repeat--I have believed you from the outset, but you are really making it hard to continue on your side. You have won a corrective footnote you would not have had otherwise. Let it go."

Here in the space of a few months Miller, an ex combat Marine, is exploding in a letter to Nisewaner. One would have to ask why? Clearly to any first year law student there was defamation. Clearly to any modestly educated historian there was sloppy work, and clearly again to any second year law student there are multiple grounds for defamation suits against the Naval Institute a knowing accomplice in an ongoing defamation. One wonders why no attorney at the Naval Institute did not review the correspondence. One also wonders why Miller keeps coming back ever more strongly to the issue of a cover-up, and in this latter what appears to be a massive cover-up.

So the question arises from the following observations:

- 1. The Grant was hit by the Denver with eleven shells recorded at the time but with more than three times that number at Manus.
- 2. The Captain of the Denver clearly was grossly negligent in his actions based on the Hamill record.
- 3. Nisewaner receives the Navy Cross for obvious reasons.
- 4. Bledsoe the Captain of the Denver receives the Navy Cross for hitting the Grant, albeit covered by statements which contract facts per se. Bledsoe is the only other ship captain to receive such an award.
- 5. Mason records Kinkaid, a non participant but an approver of the Navy Crosses, as stating that Nisewaner violated Article 92 of the UCMJ, a court martial offense, and a criminal offense under the UCMJ.
- 6. Nisewaner correctly tells Miller at the Naval Institute of this fact and quotes Cody, a Federal Judge and shipmate at this time.
- 7. Miller refuses to remedy the issue, Mason defends it, and the liability for defamation spreads to both. For the record, the Naval Institute Press does put a footnote in latter printings stating Nisewaner's objections.
- 8. However Miller interests the concept of a cover-up, and ultimately a massive cover-up, an allegation never postulated by Nisewaner. One wonder why he ever mentions this.

- 9. It appears that Mason is merely an effete with connections via Columbia who gets to tape record many people. He is clearly not a trained nor professional historian. He appears to be one of those University hanger ons who create importance for and in themselves, many Universities have such persons.
- 10. However, the concern would be with Miller of the Naval Institute, he seems to respond in an almost irrational manner to this, jumping immediately to the cover-up construct. If indeed as Miller may be correctly articulating, albeit in an overblown emotional manner, frequent in Viet Nam vets as contrast to WW II vets, he may have struck the mother load.
- 11. In fact, as Hamill is informed, Bledsoe and Schaeffer, Kinkaid's Chief of Staff were classmates and room mates at the Academy. It was this nexus which may have poisoned the waters for Kinkaid.

## 7 BACK TO MARE

Admiralty Islands	Manus Island	11/5/44	11/19/44
Marshall Islands	Majuro Atolls	11/24/44	11/24/44
HI/Pearl Harbor	Oahu	11/29/44	12/2/44
CA	San Francisco	12/9/44	

The Grant was now a patched quilt of metal and men. The Tug the Chickasaw had managed to repair the sides and keep the ship afloat<sup>147</sup>. There was one engine working and there was limited room aboard to do anything. Men had been transferred to the Hospital Ship USS Mercy<sup>148</sup> and the ships crew was now almost half of its prior contingent. Between the holes, the loss of the crew, the space on the ship still inaccessible, and the fact that the Japanese Fleet had just come down from the North and almost destroyed the remainder of Kinkaid's resources in the 7<sup>th</sup> Fleet, this had not been a good few days for the Grant.

<sup>&</sup>lt;sup>147</sup> USS Chickasaw From the US Navy Site: <u>http://www.history.navy.mil/danfs/c8/chickasaw-iii.htm</u> ...... *Chickasaw* off Tinian from 24 July 1944. After continued salvage duty in the Marianas *Chickasaw* cleared Saipan 18 September for Guam, Eniwetok, and Manus, arriving 4 October. Six days later she sailed for the assault on Leyte, arriving in Leyte Gulf 20 October. Here she conducted salvage and rescue operations through the landings, the fury of the Battle for Leyte Gulf, and the occupation, until 22 November when she sailed for replenishment and salvage duty at Manus. On 27 December she got underway for Lingayen Gulf, arriving 9 January 1945 for salvage operations during the assault. She remained at Lingayen, Subic Bay, and San Pedro Bay on similar duty until 4 March, when she cleared for overhaul and tug duties at Ulithi. From 9 to 22 June she next operated off Okinawa, then sailed for Pearl Harbor, where she arrived 24 July for yard overhaul.

<sup>&</sup>lt;sup>148</sup> USS Mercy AH 8, from the US Navy Site: <u>http://www.history.navy.mil/danfs/m9/mercy-ii.htm</u> After shakedown beginning the 17th, *Mercy*, staffed by the Army's 214th Hospital Ship personnel, was assigned to NTS to operate with the 5th and 7th Fleets. She departed San Pedro 31 August for the South Pacific and, after calls at Pearl Harbor and Eniwetok, arrived Hollandia, New Guinea, 14 October. Five days later the hospital ship departed for the Philippines for the initial landing at Leyte 20 October, arriving off Leyte Gulf the morning of 25 October to find the Battle for Leyte Gulf still raging for another day.



Figure 72 Hospital Ship Mercy

The ship had to go to repairs in a safe Harbor. Seadler Harbor at Manus was the closest location. This was to be a long trip and there was company for the Grant. The Grant would have a tow and the tow would be the USS Hidasta, another sea going tug. Along with the Grant would be the Honolulu also a wounded ship in seek of repairs.

Pfeifer remembers:

"The Grant was then to proceed to Mare Island in San Francisco of course easier said then done. The Grant had two boilers that were still functioning but a break down was always possible. On the trip to Manus we were to be accompanied by the Honolulu and the Anderson. The Honolulu was a cruiser which had been damaged in an air attack at Leyte. The Anderson had also been damaged there. Since the Grant's motive power was chancy we were to proceed under tow by the Hidasta<sup>149</sup>. This meant that we would be shackled by a quick release device to the Hidasta, which would then trail some 1800 feet of towing cable that in turn would run through our bull nose and be shackled by a quick release mechanism to the Grant's bow.

<sup>&</sup>lt;sup>149</sup> USS Hidatsa From the US Navy Site: <u>http://www.history.navy.mil/danfs/h6/hidatsa.htm</u> "After shakedown in Chesapeake Bay, *Hidatsa* departed Norfolk 3 June 1944 with two floating destroyer workshops in tow and reached Manus Island, Admiralties, via the Panama Canal, Borabora, and Espiritu Santo 4 September. On 20 September *Hidatsa* towed two pontoon barges to Morotai to be used in docks assembled on that newly taken island. Next, she towed seven more barges to Mios Woendi. Then, as the long Pacific campaign moved steadily northward, the fleet tug departed Mios Woendi 13 October with a gasoline barge, a crane barge, and a PT drydock in tow, for use in the invasion of the Philippine Islands. As *Hidatsa* reached Leyte Gulf, scene of the initial landings, 25 October she could observe gun flashes from the Battle of Surigao Straits, part of Japan's desperate attempt to deny America the Philippines. But for brief voyages to Manus and Hollandia, *Hidatsa* remained at Leyte on fire fighting, towing and salvage assignments until 3 January 1945. That day she sailed to participate in the initial landings at Lingayen Gulf where she remained 9-18 January during the vicious Japanese kamikaze attacks."

Clearly we would not be in any shape for action as we were headed for San Francisco. Our voyage to Manus was eventful.

On our first night at sea the Hidasta reported a radar contact. This created some suspense but turned out to be a false alarm. On the second night we lost a young sailor overboard. This happened because our galley and eating areas had been so destroyed that meals were being served on the fantail. The young man who went overboard had been against a life line which broke.

To retrieve the man, the towing ship slowed until the Grant could approach the towing ship without changing speed. The towing cable could then be disconnected and the Grant could follow its wake back to the unfortunate sailor whom we did recover. his comment at the success of this action was "I knew you'd be back" After picking the sailor up the Grant returned to the Hidasta shackled up the towing rig and again headed for San Francisco. The tricky part of this operation was to prevent the towing cable from becoming entangled in the screws that were driving the ship.

On out third night out a man was electrocuted and killed. He was operating an electric welding machine in an attempt to repair some of the machinery. But he died in the effort, because a defect in the welding machine. The Navy had the welding machine redesigned as a result.

When we arrived at Manus we anchored in the vicinity of the Mount Hood, an ammunition ship, which can be seen in the picture of the Grant and the crew. We were soon ordered to the floating dry dock which had been brought to Manus. We took our position in the dry dock alongside the Honolulu. Tokyo Rose then announced that the Japanese would sink the dry-dock and the Honolulu and the destroyer that was in the company with her. This didn't happen but we had one more burial service to attend. This happened because we left Leyte with one man unaccounted for. This man was a Chief Watertender whom we called Pop.

He was a small wiry man whom we all respected. He was older than most of the other crew members. But he had sons in the war and felt he should be in it too, regardless of age and draft status. The fire room, his battle station, had been flooded during our troubles and Pop was found at Manus when the compartment was pumped out. Again there were the features that we remembered from Leyte. But Pop was to be buried in the American cemetery at Manus along with the men who had fallen to take the island.

The cemetery was a beautiful place. It was on a hill overlooking the harbor and the ships at anchor there. When we had buried our shipmates at Leyte I had hated the mud and thought that burying them at sea where they had died would have been preferable. But the cemetery at Manus was a beautiful place. The grave markers were placed in perfect order and the view was beautiful. Yet as we went about our work an explosion occurred in the harbor.

The Mount Hood we learned latter had blown up, This was before Hiroshima but the smoke from the explosion climbed higher and higher. At the foot of the hill where we were there was an airfield from which planes were taking off in response to the event in the harbor. From where we were it was impossible to tell whether the planes were flying towards us or away from us as in fact they were. Captain Nisewaner who was standing next to me and my self did not wait to decide. We simply dived under the truck that was part of our equipment. When we finally realized that we were not under attack the Captain said to me "Every time I go to a funeral; with you we end up under a truck."

The Hidasta, AT-192 was a Cherokee Class seagoing tug, and the Hidasta is a tribe part of the Sioux nation. The Hidasta came aside the Grant and commenced repairs. The Hidasta was 205' long and 38" across the beam. The Grant was 376' in length and 40' across the beam. The Grant was twice the length but not much more in width. The Hidasta was broad a hips, with mighty engines, slow but steady, She had two 40mm guns as her sole defense. She was a tug, albeit a sea going tug, but a tug at most. In the midst of the battle, the tug stood off to the side but like any field medic when the time came she had to put out and help the wounded. And the Grant was one of the wounded. Admiral Oldendorf did not want the Grant to sink, there was no thought of scuttling her, just repair and back to service.

## 7.1 Details by Day

Williams has recorded the trip back by day and his recollections are as follows<sup>150</sup>:

"Oct 26 : I saw more dead brought out of the fire room today. Jap planes are around most of the time. I saw at least 4 Jap planes go down tonight<sup>151</sup>. Two tugs working on us now trying to get us patched up enough to leave.

Oct 27: Was glad to see some of our P-38 planes come in today. They kept the Jap planes off pretty good today, but they were over :most of the night. One was shot down and crashed into a liberty ship.

Oct 28: Two tugs and mine sweeper tied along side. We eat and wash on them. Everything about the same today.

Oct 29: Expected to leave here today, but put it off on account of bad weather. Cyclone hit here tonight. Tug and minesweeper had to poll away from us. I got caught on tug when it pulled off and spent the night on it. Minesweeper ripped a hole in our side when it pulled away.

Oct 30: Left Leyte Gulf about 5:00 p.m. today for the Admiralty Islands with a tug boat towing us. There is about 10 other ships in convoy. We have one engine running.

Oct 31: We split off from other ships at noon today. The tug boat and are alone the rest of the way. A boy fell over board today. Someone threw him a life jacket and we cut loose from the tug

<sup>&</sup>lt;sup>150</sup> See Williams Diary.

<sup>&</sup>lt;sup>151</sup> There were Army P 40s who were attacking the Jap Zeros. The major problem occurred in the Samar battle with the first use of kamikazes planes by the Japs. This was the first occurrence which would get worse as the War went on culminating with the total suicidal attacks by the Japs at Okinawa.

and went back and got hit. Part of the ran along the ship was blown away during battle and we didn't have anything protecting us. We had tied a rope, but it was real slack and that didn't stop him. He went on over.

Nov 1: We are only eating two meals a day on this trip. We sit on deck to eat those. We have only had fresh water to drink on this trip until today. They issued one quart per person today to shave with. I think I got the straight dope on the losses the Japs suffered in the battle. Two wagons, two heavy cruisers, two light cruisers and ten destroyers. The whole outfit. It seems one thing happens after another. One of the fellows was welding this afternoon, something went wrong and he was electrocuted.

Nov 2: Cairnes was buried at sea this morning. Passed Palau early this morning.

Nov 3: Everything going on alright today.

Nov 4: We have a very sick boy aboard. Radioed in for them to send a doctor out to meet us. When he met us tonight, it was too dark and rough for them to transfer him to our ship.

Nov 5: Arrived at Manus in the Admiralties at 7:00 a.m. today. A boat took the sick boy to the hospital this morning. We had three meals today and the tug tied along side, so we can get good water to drink too. We were told today that we are pretty sure of going to the states. Will he here a couple of weeks.

Nov 7: Pulled along side repair dock today. Some of the wounded that can get around now came hack aboard today. They are striping anything off the ship that they can use out here.

Nov 8: We are getting three meals a day now. Also all the water we need for showers or anything else.

Nov 9: Recovered the body of Chief Superintendent this evening from the fire room. The hand from the Cruiser Honolulu came over and played for us tonight. Jap planes over here today. Dropped a few bombs. Didn't do much damage.

Nov 10: An ammunition ship blew up today. It was the largest explosion I've ever seen. It wasn't so very far from us. It seems a couple L.C.I. were tied up to her. The report is over 1,000 killed. We get a pill about every other. day now to prevent malaria fever.

Nov 17: Went in drydock today to remove one propeller.

Nov 19: Left drydock this morning. Removed radar and refueled. Left Los Negroes about noon with cruiser Honolulu and another can (destroyer) for Mauro. Honolulu crippled also. We .both expect to go to the states. .

Nov 23: Crossed 180th Meridian. Time went hack a day. Pulled into Majuro, Marshall Islands about 8:00 a.m. Refueled and left for Pearl Harbor at 12:00.

Nov 24: We are celebrating the ships first anniversary today. Also Thanksgiving. Each member of the crew got a copy of the anniversary paper.

Nov 29: Arrived at Pearl Harbor at 10:00 a.m. Exactly six months since we left here. The only time we left the ship during this time was on a beer party now and then on some island. The only women we have seen is two or three Philippinos that came out to the ship to trade clothes for Jap money. On this trip, we were in .the invasion of Saipan, Tinian, Palau, Philippines and a naval battle at Surigao Straits. We also visited the Marshall's, Solomons and Admiralty Islands. We lost 38 of our crew in the sea battle.

Nov 30: Went on liberty today.

Dec 2: Left Pearl Harbor about 2:30 p.m. heading for Frisco flying a homeward bound pennant.

Dec 9: Arrived at San Francisco, California about 10:00 a.m. Just made it under the Golden Gate Bridge. Something in the engine room trapped out and a tug had to pull us to the docks.

Dec 10: First leave party shoved off today."

## 7.2 "I Knew You Would be Back"

As the Grant was being towed to Manus by the Hidatsa, one of the two engines were operational and the tow was long and arduous. The crew was beaten up but were recovering. The hull had been patched externally and could withstand the journey, but just barely. There was a sense of relaxation on the ship.<sup>152</sup> On the fantail the men relaxed and watched the waves slap along and in bow the ship was under tow. The tow was a long cable, stretched under tension between the Grant and the Hidatsa. The speed was slow, 10 to 15 knots at best, the weather had cleared, typhoons could still come up, but they could get to Manus in just a few days, and at Manus there was a floating dry-dock, that meant permanent repairs, enough to get the Grant back to the States and permanent repairs.

There was a moment of relaxation, a moment to breath the warm air of the Pacific and to rest from the battle, a moment for the crew o lean back and take a breather, have a smoke, watch the water move slowly into the distance, leaning over the ash cans, the depth charges on the starboard side. There were always those who leaned on something, who needed to push their back onto a stationer point and relax. One young seaman did just that, he leaned back on the railing, something he had probably done dozens if not hundreds of time before, but this time, after the battle, the railing was no longer able to take the strain, crack, and the seaman flipped over the port side, splayed out, arms stretched cross like as he hits the Ocean in a splash. The other dozen or so seamen, jumped up and ran to the edge, "Man over board" went out the cry, "Man over board!".

Nisewaner was on the bridge, the cry came up loud and clear, it was now a bellow from the crow of young men on the fantail. The seam in the water was now fading in the distance, at 10 knots

<sup>&</sup>lt;sup>152</sup> This is based upon an interview and a written letter from Dr. Pfeifer dated 10 November 2006.

they were moving at 15 feet a second away from him, every heart beat, another fifteen feet, and in a minute that was 900 feet, 300 yards, three football fields, and he knew that the Grant was in tow, and even if it were not it could not turn that quickly. He knew the sharks were in the water. He had survived the battle and now he would die in the gentle Pacific with its many hidden dangers, sharks, sun, silence, the Grant was now getting smaller by the second.

Nisewaner shouted, "I not going to loose another damn sailor!" He cried out to the deckhands, "Cut the tow rope, now" He then turned and said to the XO, "Tell the Hidatsa we are cutting tow and retrieving a man over board."

The deckhands heard him from the bridge, they immediately took the axes and at the bow chopped the tow rope, chop after chop, second after second, getting more distant at each moment, hoping that they would find their shipmate.

The engine room had the remaining engine operational, limited but working. Nisewaner watched as the rope to the Hidasta splayed forward into the Ocean in front of the ship, then shouted down to the engine room, "Full speed ahead" and to the Coxswain, "Hard Port Rudder, come about."

One of the officers had by this time gone to the fantail and tried to keep a sighting. Three of the seamen had been tracking the man, and had barely kept visual. On the bridge Nisewaner knew he must do a 180 degree turn but get back on course, the turn would get him 500 yards off the path he was on, he had to guess, he had to be his own plotting mechanism, he had to know the dynamics of this ship, how far back must he go, could he be offset 500 yards and still see the man, he had to get there.

Hamill remembers:

"Finally, we were informed that an ocean going tug, the USS HIDATSA ATF 102, had been assigned to tow us from Tacloban to Manus, a matter of some 1500 sea miles. It was a hopeful but somber crew that looked back with many a tear as we were towed from the waters where so many of our friends had found their final resting place. Our thoughts were a mixture of sadness and hope, of regret and anticipation and of anger and determination, and perhaps most of all... a deep sense of loss.

Our progress toward Manus Harbor was slow. One ocean going tug, towing a stricken destroyer, has a speed of advance of something under ten knots. Thus we faced a trip of seven or eight days and nights. Fortunately, our forces had all but eliminated Japanese submarines from the area and enemy aircraft had too many higher priorities so that GRANT's only enemies were time and circumstances...so we thought."

When the crew go the seaman back on board, he turned and thankfully told the group:

"I knew you would be back!"

The Chief came up to him and patted him on the back and said:

"I told you never to lean your ass on anything, this teaches you a lesson." smiled and walked on. One suspects that the lesson has found some forms or perpetuation.

## 7.3 Another Tragedy

Hamill further recalls another tragedy:

"On the second night of our trek, tragedy struck once again. One of our most popular shipmates, Warren McElroy, an electrician, had been determined to improve our lot by bringing a second evaporator on line to increase our fresh water supply."

"McElroy was one of those modest guys that goes his way quietly "doing good" and trying always to help his fellow man. He was an immensely popular member of the engineering gang. Working with an electric blowtorch under terribly adverse conditions and up to his neck in a partially flooded compartment, McElroy accidentally electrocuted himself. With no doctor or pharmacist mate aboard, we literally did not know what to do. On my orders, we brought his lifeless body into the wardroom and administered to him as best we could. We laid him out on the wardroom table and for more than two hours with one of us astride him, we did our best to induce breathing through artificial respiration while eight others rubbed his legs and feet and arms and hands. Skipper Andy and I took our turns at artificial respiration along with all the other "volunteers." In our ignorance and desperation, none of us wanted to give up. We somehow could not ."

## 7.4 Repairs at Manus

Seadler Harbor at Manus was a large Naval facility which at this point had many floating dry docks, re-provisioning, repairs and supplies. Seadler Harbor was something Nimitz had seen as critical and there had been a viscous battle between MacArthur and Nimitz over who would have control over Manus; Army or Navy. Fortunately the Navy had the Harbor for this was to become a repair deport and location for many ships wounded in battle. It also would be the final resting home for many a sailor as well as Marine and Army soldier.

Just after the ship arrived at Manus a photo was taken with the men the ship and the ammunition ship Mount Hood in the background. The picture below has found its way into every Grant man's set of precious belongings. Clearly they were not in dress whites, a motley destroyer crew, and clearly they had not been chipping and painting, the hull shows scars from battle. In fact by this point there was not a single paintbrush to be found on the Grant.



Figure 73 DD 649 at Manus Mt Hood in Background

The officers also assemble for a photograph at this time. It is shown below. Hunt Hamill in the front row appears as some Australian spotter in his epaulette shirt and shorts, but the give away is his black socks and shoes. One may even imagine Hunt with a good shine on those shoes.



Figure 74 Officers at Manus

Ed Pfeifer had listed the officers on the back of the photograph and those names are as he wrote them so many years ago.

Ltor Holard, Here, Harting, Lodge - Swencone, Plufer, Fisher, Marrill, Marsh Kandall, Criscoy, Hamill, Nacewaner, Lyon, Brickley abeent - Whener, Helander, Red Dryclocked at Manue Coland, British adminaction

Figure 75 Names of Officers in Picture

Pfeifer as recalls each of the men in the photo:

Captain Nisewaner was center in the photo. The other men were:

Bob Doland, was the Fire Control Officer was an Ensign and remained on board.

Tom Ham was a newspaper man from Atlanta, the Atlanta Journal. He joined the ship at Charleston and he and the Captain were close friends. He was the Assistant Gunnery Officer and also had Anti Aircraft. He was instrumental in getting the PR for the Grant, most likely with the Saturday Evening Post and assuredly when the ship made it back to Mare Island.

Bill Hartung was from California and was the CIC officer.

Howard Lodge was from Philadelphia and was in banking, and he was responsible for the Communications Department.

Bill Swenson was a Psychologist with a PhD in Psychology. He latter went on to head that department at the Mayo Clinic.

Ed Pfeifer was the Torpedo Officer and he was from Vermont, and originally from Michigan.

Ted Merril was in the Gunnery Department and was in the IC Room.

Jerry Marsh was the mustang who worked his way up the ranks, a salty sailor who was one o the best of not the best Gunnery Officer around.

Kendall was from Texas, was studying for the priesthood and studied in Rome, knew Italian and the politics of the Curia, he was a Communications Officer and had a flare for dramatizing things. He frequently exhibited his flare with visiting officers.

Bill Chrissy had a PhD in Psychology from Duke and his interest were applied psychology in business practices. He was young and the most junior.

Hunt Hamill was the XO, a Harvard NROTC graduate and a seasoned officer having been in the Navy since 1940 with previous battle experience in both the Atlantic and Pacific theaters.

BB Lyons was a Williams College graduate and was the Engineering Officer. He was also qualified as the Deck Officer.

Ripley was the officer and was an Academy graduate.

These were the leaders on the ship, a group of men who had been to hell and back and were now awaiting still a very long trip back.

7.5 USS Mount Hood (AE-11) -- Explosion, 11 November 1944

The USS Mount Hood, was a ammunition ship which was at anchor in the Manus Harbor. The Grant when it first arrived could see the Manus off its port side. The Mt Hood had been commissioned in July 1944, was assigned to the Pacific area as an ammunition transport.

Early on the morning of 10 November 1944 the Grant crew with Ensign Pfeifer went to the cemetery on Manus to attend the burial of one of the crew, the one who had been electrocuted when working the below decks. From the hill overlooking the harbor the Mount Hood's cargo of explosives detonated in a massive blast send billows of smoke thousands of feet in the sky. The Mt Hood was totally destroyed and all on board were killed. Damage and casualties were also resulted on ships anchored as far as a mile from the Hood. Almost 400 were dead or missing as a result of the explosion.



Figure 76 Manus Cemetery

Pfeifer recalls the Manus Cemetery, a well groomed cemetery on the hill, and the crosses all white and lined up elegantly in rows. It was a good place to be buried he had thought. Some many men and so many crosses. It was on the hill overlooking the Harbor. This was the second time Pfeifer had been with the Captain taking care of their dead shipmates.

*Mount Hood's* cargo of explosives suddenly detonated with a massive blast, and the ship was totally destroyed, killing all on board or working the ship at the time. Damage and causalities to both *Mount Hood* and ships anchored up to 2,000 yards away were massive, 45 dead, 327 missing and another 371 injured. On the day in question, ammunition was both being received on board and delivered to other ships, all five holds were being worked at the same time. About 3,800 tons of assorted ammunition was onboard, and included:- bombs, projectiles, fixed ammunition rockets, smokeless powder, aerial depth bombs, and nose fuses.

Torpex filled depth bombs were being hoisted onboard. Enemy action was ruled at as a cause of this disaster, the most probable reason for the explosion appears to have been rough handling of ammunition being loaded or unloaded, and it seems likely that the accident was caused by the detonation of Torpex filled Depth bombs being loaded into number 4 and 5 holds.

Detonation could have been set off with a bomb on its way down to a hold striking a hatch, or the careless dropping of it into a hold. Eye witness reports indicated that at first a small explosion about the size a small bomb might make was observed, a few seconds later, the main explosion followed, flame and smoke extended for about 100 feet in radius, and quickly rose to 7,000 feet.<sup>153</sup>

<sup>&</sup>lt;sup>153</sup> See <u>http://ahoy.tk-jk.net/macslog/USSMountHoodExplodes.html</u> This site presents an excellent overview of the incident and we have used this as a reference source. Also see <u>http://www.history.navy.mil/photos/sh-usn/usnsh-m/ae11.htm</u>.

## 7.6 *Return to Mare Island November 1944 till March 1945*

The ship entered the harbor in San Francisco flying its homeward bound pennant from the top mast.



Figure 77 Grant Flying Homeward Bound Pennant when Entering San Francisco Harbor

The ship made it back, except for one minor problem. Just under the Golden Gate Bridge the engines gave out. All that way and at the final step across there was the potential for disaster. The Captain sent an emergency call for a tug, since if he did not get one quickly then he would be smashing against the northern shore of the bridge works, not a convenient place to land his ship and not what a Captain wants in any way. The tug arrive and managed to get the ship upwards towards Mare.

BB Lyons had called up to the bridge to say that the evaporator had given up the ghost. There was no water for the boiler, the turbines would stop. But they were in the harbor and he could try sea water and loose the boilers but they were to be replaced any how. He was told to do so. It gave the Grant a few more yards of power.<sup>154</sup>

Hamill recalls:

"December 12<sup>th</sup> in the early morning we did finally arrive at the fuel docks where we were told of the aborted welcoming ceremony and were given copies of the local San Francisco papers complete with our story under the heading "The Ship That Shouldn't Have Come Back." Similar stories were "front page news" in morning newspapers all across the country."

When they got there had been a reception planned and there were journalists but due to the engine and evaporator problem and due to the day delay they celebrations were muted. . Apparently as the story goes, Ham, the Atlanta journalist had let his fiends in Honolulu know what had happened and the ship was to be greeted in great form. The final engine problem

<sup>&</sup>lt;sup>154</sup> Recalled by Hamill in his book.
however put a bit of a crimp in the plans. However Hamill was a bit concerned because of Navy security as he recalls:

"Needless to say Andy and I were most concerned as to the manner in which stories of our tragic night found their way into the "main stream" PRESS. Much of the detail was word for word what had been in my report to Andy. We could only conclude that Tom Ham, our Machine Gun Officer had leaked parts of my report to the PRESS while we were in Pearl Harbor. Tom had been an ATLANTA JOURNAL reporter prior to entering the Navy."

But the ship finally made it and the men started to receive their duly deserved awards.



Figure 78 Navy Photo 589-45, CDR Turrell Nisewaner, Commanding Officer of USS Albert W. Grant (DD 649), receives the Bronze Star at Mare Island on 20 Jan 1945. By Darryl Baker.

By February the Grant's repairs were near finishing. Nisewaner was soon to be replaced by Higginbotham and the change in crew was taking place at all ranks. It was the Navy way.



Figure 79 Off Mare island 02/20/45

The ship also took care of its own. Hamill tells a wonderful story about one of the crew men:

"One great happening occurred when it was discovered quite by accident that "Old" Chief Watkins, hard drinking and tough as he seemed to be, was truly blessed with a gigantic heart. Months before, as we were leaving the east coast to head for the western Pacific, we received a half dozen "common seaman" to fill out our complement. One of them was a blue eyed, towheaded kid from the Georgia hills who must have lied about his age. Whitey, I believe, was his name. Well, Whitey could neither read nor write, so early on he asked Chief Watkins to read him a letter that had arrived from his mother. Watkins not only read the letter to Whitey but wrote, as requested, so that Whitey's mother would hear from her son. Because of this Watkins knew that Whitey was sending nearly every penny of his pay to Mama. When we finally made it to the West Coast, tough old Watkins figured Whitey had no means to get home. Watkins bought him a round trip air ticket from Frisco to Atlanta. It was only through happenstance that this wonderful story became generally known throughout the ship."

There were many other interesting events that occurred. The one about the Hallicratfers radio in the Officers ward room is another worth retelling. As Hamill has stated:

"The tale of our wardroom radio must also be told!

When GRANT was originally commissioned we had a beautiful HALLICRAFTER radio mounted high on the athwart ship bulkhead that ran across the front end of our wardroom. It was strictly for in-port listening pleasure of the officers. Actually we listened more to Tokyo Rose than anything else as she came in clearly and had a wide selection of fairly current jazz interspersed with her comments on how Japan was winning the war.

In the fusillade of shells that smothered GRANT, one 6 inch armor piercing projectile, compliments of the U.S. Cruiser DENVER, chose to put a rather substantial crease in the top of

our radio. The shell tore through our starboard bulkhead, caromed off the top of our radio and exited without exploding.

With a bit of chicanery in our hearts Andy and I had our destroyed radio sent to the HALLICRAFTER headquarters in (I believe) Chicago. We described the circumstances under which it had been damaged and rather plaintively requested that it be repaired and that we be billed accordingly. ~ Well, back came a letter as we expected.

We were told that our fine radio was beyond repair, that HALLICRAFTER would be delighted to send us "free of charge" their very latest model and that our permission was requested for them to display our "deceased" unit. Needless to say we hustled off a letter of ascent. Later we received, not only a magnificent radio but also an enthusiastic letter with pictures showing our poor radio on display in their down town, street level window.

It was complete with sign reading "HALLICRAFTER GOES TO WAR" and an explanation board telling the story of GRANT's tragic experience."

So the men of the Grant had a respite from War. They went home for Christmas if they could, some had families come and visit, others stayed at Mare and enjoyed San Francisco. The ship was being repaired to return.

# 8 PHILIPPINES, MACARTHUR AND BORNEO

Upon completion of the repairs a new set of crew members were added as well as a new skipper, Captain Higginbotham, or "Higgie". Higgie came from destroyers but was somewhat different than Nisewaner, he was a bit more aloof but approached the ship knowing its reputation and not intending to bend it his way, for this was already a strong twig and it was bent just fine. The Navy was always moving men around and this cruise would be no different.

The cruise would be from San Francisco, to Pearl for additional re-training, and then onto the Marshalls, the Carolines, and then to Manila. From Manila the ship would be assigned to a Task Force.

A new set of crew required more training, and once set to sea from San Francisco, the training continues, targets, General Quarter drills, fire control drills, gunnery drills, and every other type of drill possible. The older crew who had been through Leyte now knew the importance of the drills, the life saving nature of "doing and not thinking" as Nisewaner would say. This time, they had a great deal of experience on their side, they knew what may be ahead again, and they did not want ever to repeat Leyte.

CA	San Francisco		3/11/45
HI/Pearl Harbor	Oahu	3/17/45	4/23/45
Marshall Islands	Eniwetok	4/30/45	5/1/45
West Carolines	Ulithi	5/4/45	5/7/45
Philippines Islands	Leyte	5/14/45	5/19/45
Luzon P.I.	Subic Bay	5/21/45	5/22/45
Luzon P.I.	Manila Bay	5/22/45	5/26/45
Luzon P.I.	Subic Bay	5/26/45	6/1/45
Luzon P.I.	Manila Bay	6/1/45	6/3/45

#### 8.1 Change of Command

Captain Higginbotham arrives to take the place of Captain Nisewaner. Higginbotham, "Higgie", is a bit younger, being Naval Academy class of 35', Nisewaner being class of 32", and this will be his first command. He had spent the last year in Washington but had had extensive experience in the Atlantic in the opening days of the War.

Higgie recalls<sup>155</sup>:

<sup>&</sup>lt;sup>155</sup> From the Diary of Higginbotham, "Grandpa Remembers".

"Upon arrival at Mare Island I found that the Grant was doing her post repair sea trials, so I was able to go to sea a couple of times with her present skipper, Andy Nisewaner, class of 1932, prior to relieving him. The Grant had been badly damaged in the Battle of Surigao Straits at the entrance to Leyte Gulf. During a night torpedo attack against the Japanese battle line, she had been hit by enemy gunfire, and in the melee was also fired on mistakenly by one of our cruisers, the U.S.S. Denver (CL-58). The 6-inch shells of the Denver apparently did the most damage. Andy was an excellent skipper and his was a tough act to follow.

After relieving Andy, we operated for a few days out of San Francisco, returning to port each evening after the day's training. I'll never forget my first landing of the Grant alongside a dock. Upon our return to port, we were assigned a berth alongside a new pier that had just been completed at Treasure Island. A full ebb tide was running and the current off the pier was very strong. My first inclination was to anchor and wait for slack water, but his would have involved a long delay so I decided to go ahead with the landing. We steamed upstream against the current and turned the ship so that she headed directly towards the slip upstream of our berth. We then went ahead at standard speed and the current carried us down so that upon arrival at the pier we were lined up with our berth. Then we backed all engines full, felt the screws take hold and the ship shuddered to a stop at the exact spot we wanted to be. It was a great landing but in retrospect quite risky. I can still see those rocks on the shoreline at the end of the pier as we backed engines and hoped that she would stop in time.

We then sailed for Pearl Harbor where we had gunnery training and shore bombardment firing against Kahoolawe Island. From Pearl we sailed to Ulithi Atoll in the Central Pacific in company with another destroyer, the U.S.S. Walker (DD-517). En route we picked up a sonar contact which our sonar men classified as a submarine. In successive runs we dropped some 60 depth charges on the target. I felt sure at the time that it was a submarine, but it must have been a school of fish instead.

After a few days at sea we began to experience a fresh water problem. All of our fresh water was made by distilling salt water in the ship's evaporators. The ship's boilers that made the steam for the main engines got first claim on this fresh water, and normally there was about 15 gallons per man per day for use in the rest of the ship. Our consumption was much higher than should have been. We took all sorts of steps to reduce consumption such as closing the showers, shutting down the laundry, etc., but nothing seemed to help very much. I recalled from my earlier years in engineering that the scullery, in which the crew's mess gear was washed, was sometimes a source of leaks. So the Chief Engineer and I went down to the scullery and, sure enough, there was a stream of water leading to an overboard discharge line through a faulty valve. We repaired the valve and had no more fresh water problems."

The ships stops at Pear as always.

# 8.2 Pearl Harbor Again and Again

A month or more at Pearl on a new cruise meant more training but it also meant lots of opportunities for enjoying the town. Pearl in early 1945 had become an institutionalized Navy

town, it had expanded from the small Navy base with adjacent town of 1941 to a massive Naval base with every amenity that a sailor could look for. However the Shore Patrol watched over Pearl with a hawks eye. The SP was in many cases more hated than the local police, many of the SPs were regular Navy or in other cases regular Coast Guard, they had been at this game for years, from port to port, and the commander at Pearl, namely Nimitz, did not want any bad reputation to result on his watch. Nimitz was fair but direct in his intents that Pearl would not become a Navy brothel.

The Grant spent almost two years at sea. A simple calculation however shows that Pearl was a favorite. The Table below summarizes the Pearl dates and others. The ship was out for a total of 706 days of which it spent 97 at Pearl and 132 at Mare. Almost 35% of the ships time was in either of those two ports. Mare was repairs but Pearl was a real mixture. Pearl was for many of the younger crew an opportunity to see life.

Time at Pearl	То	Days/Percent
From		
03/04/44	04/04/44	31
05/11/44	05/29/44	18
11/29/44	12/03/44	4
03/17/45	04/23/45	37
11/23/45	11/30/45	7
Tetal Deers in Deers		07
Total Days in Pearl		97
Total days at sea		706
Percent Pearl		14%
Days at Mare		132
Percent Mare		19%

Notwithstanding this Pearl did offer an opportunity for the men to unwind. Harold Olson was the dancer, and if there was a woman to dance with, no matter where or when, Harold found the chance. Harold had spent his time before in the orphanage school and the Navy had given him the chance to see other worlds. He had made it through Leyte and all the other battles and he had become a Quartermaster 2C and now had a position of responsibility on the ship. In the two years in the Navy he had matured twenty. However his love of dancing whenever he could was still there. And Pearl never disappointed Harold, there were many a young lady who would be attracted to this young blond handsome many with the cute smile and warm voice. And as a QM 2C Harold had established himself as a seasoned sailor, and having been from the grant, as a war tested destroyer man.



Figure 80 Olson and Friends

Bert Farley was from Eastern Kentucky, a small town in coal country, where the entertainment was weekly socials at the local church. However Bert did enjoy the recreation at Pearl.



Figure 81 Farley in Pearl



Figure 82 Olson and Friends

And Olson danced and danced and danced. He also recorded this for posterity. If there was a port and if there were young ladies then these sailors found a place to go.



Figure 83 Olson in Pearl

Homer Burns was from eastern Tennessee. A country boy on the big town would enjoy Pearl for many of its other virtues. Homer, who would someday become a Baptist preacher, and a great one at that, was from time to time seen in some of the more interesting spots in Pearl, and with his buddy Tom McIntruff recorded some great Tennessee songs, heard at that time on the Knoxville station. Homer and Herman recorded two of them on an old 78 rpm record while in Pearl and this record has been kept for posterity in digital form. Homer and Tom can be heard singing in a manner which would make any country music happy to see the two Tennessee boys having such fun at Pearl and in such good "spirits". Of course as a preacher in latter life, Homer would frown upon the mere implication that anything stronger than a good "Doctor Pepper" enlivened his recording studio performance at Pearl.



Figure 84 Homer Burns and Tom McIntruff in Pearl (an earlier trip, McIntruff latter killed in Leyte)

Henry Elkert was a Fire Control man from Pennsylvania. By early 1945 he was till twenty years old, he would turn twenty one latter in the year. He was a Pittsburgh boy and as such loved his beer. Henry remembers the times in Pearl when they would just go from bar to bar and all too often wound up a bit intoxicated. Then they would have to go back to the ship. There were many

such beer parties and many such returns to the ship, and some of the returns had to be creative. A sailor did not want to go before the Captain's Mast for being late to return, timing was everything but the beer somehow made time bend and twist in ways that were not best aligned with the Navy's rules. So one night Henry who had consumed a small excess of beer returned and he was late to get the boat back to the ship. He knew, being of sound mind, that this was not a good thing to have happen. So being a creative FC 2C he took all of his clothes off, no wanting to get them wet, and put the in a beer carton, not necessarily to disguise his sins, and jumped into Pearl Harbor, literally the real harbor and swam out to the ship.

Ed Pfeifer was the Officer of the Deck and Henry climbed up the side of the ship and greeted Lt Pfeifer and announced: "I'm here!", Pfeifer smiled and said to the quartermaster sergeant at arms with him, "Take him down to his bunk." And then Henry, clothes all neatly arrange in the beer carton, a bit wet from the swim, and standing there butt naked, was escorted down to his bunk to enjoy the remainder of the evening. Henry remembers this with a smile even today.



Figure 85 Elkert in Pearl

Daniel Dorsch. the lone survivor of the boiler room, recalls some of the stories his father, John, told about Pearl<sup>156</sup>:

<sup>&</sup>lt;sup>156</sup> Letter from Daniel Dorsch about his father given to authors on January 20, 2007 in Orlando Florida.

"When the sailors reached Pearl, some entertained the ladies of the night. The Navy didn't say much and many of the sailors sent most of their money home. There were stories about the sailors getting up early ad taking their \$5 back when the ladies were sleeping. My father told me he came back to Pearl six months latter and was with a friend in a large bar, my father heard this woman at the other end of the bar say "you stole my \$5" and threw a glass at them. There was a big free for all at the bar, my father ducked and crawled out. My father never would admit if the lady was talking to him or his friend."



Figure 86 Grant Crew and A Local Supporter

Elkert remembers that as part of the "hygiene" program the ship's doctor instituted for the younger men:

"The ship's Doctor circumcised the men to keep them sanitary, the rumor was he was making a belt!"

And Emmett Crump has fond memories:

".....Lots of young ladies in Hawaii....."

# 8.3 To the Philippines

When the arrive in the Philippines there were several exercises and needs to sort out the crew again. First Higginbotham recalls:

"Upon arrival at Ulithi, I was assigned to command and escort a convoy of service force craft (towed fuel and water barges, floating dry-docks, etc.) for passage from Ulithi to Leyte Gulf in the Philippines. Our speed of advance was about 8 knots, and the Grant patrolled back and forth in front of the convoy as it lumbered along.

As we approached the Philippines the cloudy weather had precluded star sights for a couple of days, and we didn't know exactly where we were. Soon radar picked up mountain peaks in the Philippines, but we had no way of positively identifying the peaks. However, we judged that we were somewhat north of our track and altered course to the southward. Luckily, we had guessed right and we arrived at the entrance to Leyte Gulf the next morning. Upon arrival, the service craft were released to the local Service Force Commander and I reported with the Grant to Commander Seventh Fleet.

After fueling and provisioning in Leyte Gulf, we proceeded via Surigao Straits to Subic Bay where we reported to a task force of cruisers and destroyers. One of the cruisers was the U.S.S. Phoenix (CL-46) commanded by Captain H.L. Challenger, who had been the Chief Engineer in the Arizona when I first joined the department. We had lunch together in the Phoenix and enjoyed swapping sea stories. (After the war, the Phoenix was sold to Argentina, renamed and served in the Argentine Navy until she was sunk by a British submarine during the Falklands war).

The task force sortied from Subic Bay for tactical exercises. The force was divided into two groups and during the night we simulated a night engagement between the two groups. The destroyers in our group sped in towards the cruisers of the other group for a simulated torpedo attack. It was very dark and all ships were darkened without running lights. Very exciting! As the simulated attack ended, the task force commander ordered all ships to rejoin and take station in formation with his ship as the guide.

Looking at the radar scope we could see ships scattered all over, but there was no way of identifying the blip that represented the guide. However, we could identify cruisers by their larger blips, so we headed for the cruisers at 25 knots. I heard over the voice radio a message to another destroyer telling him to take picket station 20 miles to the north of the formation, and as we were heading in a general southerly direction, I made a mental note to look out for him. A few minutes later as I was peering ahead through my binoculars, I saw the V-shaped bow wave of a destroyer directly ahead of us. We sounded one blast on the whistle and altered course to starboard. The destroyer passed down our port side close enough that we could hear the whine of his fireroom blowers. As we were both doing 25 knots, a collision would have been disastrous, but a miss is as good as a mile, and we proceeded on to take our position in the screen."

#### Hamill remembers:

"So now we were to have another "free cruise" to the beautiful Hawaiian Islands. Toward the end of March' 45 we arrived Pearl and promptly started our four weeks of retraining. This was my third "indoctrination" so there were no surprises and in late April we headed back to the Philippines.

Our orders were to rejoin our Squadron which was heavily engaged in shore bombardment and picket duty off Okinawa having done the same thing at Iwo Jima, while we "basked" on Mare Island. Commencing during our training exercises at Pearl Harbor and continuing as we once again crossed the vast Pacific, we received report after report of sinkings and damage to the other eight ships of Squadron 56.

It seemed that the majority were casualties so that when we arrived in the Philippines we had virtually no Squadron to which we could report. Accordingly, GRANT was ordered to Manila to take part in a tour of the Islands by General MacArthur and in the invasion of Borneo. It was with mixed feelings that we received these orders as we did want to join our battered Squadron, though we did not relish facing, the "Divine Wind" as the Kamikazes were called. We'd already had a taste of that after we were hit in Leyte Gulf."

#### 8.4 Manilla and Leave

There was a great deal of time in and out of Manilla. As one of his first acts entering the Philippines and one of his last acts as XO, Hamill wrote a memo to the crew on their behavior in Manilla, and it is shown below. The memo clearly states that the city is still a war zone and is not to be considered as an alternative to Pear Harbor. In many ways Hamill is talking to his five year olds, and the crew had to be informed that they were in a true war zone. Leave was just a way to get off the ship but Manila was devastated.

Information on liberty in Manila.

We will arrive at manile about moon to spand 4 days in which time liberty will be granted on a port and starboard basis during daylight hours expiring at 1800

Liberty privileges are confined to the area within l'anils City limits exclusive of the sections marked "OFP LIMITS" Such "OUT OF BOUNDS" places are marked by signs and you are warmed against "entering them.

Uniform for liberty is undress whites without mackerchiefs.

Price levels in Manila are not yet stabilized consequently only a limited number of articles may be prochased without getting "STUCK".

Do not out any native food. Some restaurants have been approved by Army medical authorities and may be visited. These are marked by signs in window. The Red Gross is located near the Santa Grus bridge Some food may be obtained there. Mative liquor has caused blindness or pdsning to many members of the Naval Service. You are warmed not to drink any. The Tandwary distillery at 1639 Tandwary Street mear the Presidents Falace has been authorized to sell liquor to service personnel between 1600 and 1800.

Water supply is contaminated and should not be drunk.

The vemeral disease rate is exceedingly high in Manila. In order to protect you, rubbars and prophylactics will be issued at the gangway to those whe mant them. A map showing prophylactic station in Manila is posted at the gangway.

We will land a shore pairol daily consisting to two officers and five PS's to report to the Sonior Patrol Office at Old Bilibid Frison. Uniform for shore patrol FO's is undress whites with neckerchiefs, duty belt, night stick and brassard.

DON'T wear sheathe knives ashers.

٦

2

Do not expect to much from your visit to Manila. The main part of the city was the acome of very heavy fighting and much destruction was done by the Japs before we took ever. Mone of this has been rebuilt There may still be booby traps and live ammunition lying about Den't touch anything suppleious. Stay out of trouble and behave yoursif.

H. HAMTIL, It., USIR., Excentive Officer.

#### Figure 87 Orders from XO Hamill about Shore Leave Manilla

Manila had been destroyed by the Japanese when the Americans approached. Old Manila was a colonial like Asian city. There were many old buildings near the water front and there were many colonial type buildings for the Government. These had for the most part been razed. Tens of thousands of Philippinos had been murdered by the Japs and then the Japs methodically demolished all of the infrastructure in the city.



Figure 88 Manilla

The streets of Manila were empty except for the few hardy Philippinos who were slowly returning to rebuild. There were shells of buildings, there were hidden mines and explosives and there was the random Jap soldier aiming for the one last kill before his life is taken. Every street was a threat and a risk. No building could be safe and there were booby traps everywhere.



Figure 89 Manila

In the heart of Manila such landmarks as the Philippine Bank had been demolished, walls crumbled and laying at the foot of the building.



Figure 90 Manila Bank

The Governments Finance building and all other buildings were likes destroyed. All of Manila would have to be rebuilt.



Figure 91 Finance Building Manila

Hamill recalls:

"It was on our arrival Manila, May 28th, that I was handed a message brought by a most sheepish messenger. I sensed that 'something was wrong by the look on his face. I was not, however, prepared for the message. I knew in an instant what it was when I read the first words... "Lieutenant Hunt Hamill, you are hereby ordered. .." Try as I did, I could not stem the tears. They just popped out so that for the moment I could read no further. I would be leaving my shipmates, my charges, my friends. And what had been my home was no longer to be. For over a year and a half those restricted quarters had been home....

When later that day I approached the quarterdeck to take my last farewell from GRANT the crew was gathered about to give me a send-off. Then, to add to my already emotionally charged feelings, my two "felons" stepped forward and presented me with a scroll signed by all the men and Officers with spaces for those no longer with us. The scroll was obviously what they were preparing. I managed to say a few words...then "over the side."

## He continues:

"Aboard a Navy ship the Executive Officer runs the *crew* and the ship and reports to the Commanding Officer who sails and fights the ship. Ultimately though, the Captain is responsible for everything. My job as Exec. *of* GRANT was greatly facilitated by the fact that I was blessed in having two superb skippers in Commander T. A. Nisewaner and Commander Grover Higginbotham. Though Andy & Higgie had many qualities in common, they could not in other ways have been more different. Andy, a man of instinctual vibrancy, explosive, a man of action; Higgie, a quiet contemplative man of logic. Approaching from opposite poles they were both true leaders who inspired in their crews a high level *of* affection and desire to excel. It was an honor to serve under them as it had been under Captain Edgar *of* the BIDDLE and as it would be under Commodore John Higgins, my next boss.

GRANT's motor whaleboat took me to the dock in Manila and Chief Stewards' Mate Hatcher saw to it that my gear was delivered to the so called BASE OFFICERS QUARTERS "BOQ" Manila. I was sorry to leave my friend Hatcher. It was not a happy day. When I went to the window of my room, I realized that the emotional aspect of my transfer was not over. As I looked out over the harbor and the glassy sea, there was GRANT, picking up her motor whale boat in preparation for departure. Roughly twenty minutes later GRANT upped her anchor and then, for the better part of an hour, I watched her head out *of* the harbor and set her course Southwest more *or* less into the setting sun. I kept my eye on her until she disappeared over the horizon and a bit of my heart went with her."

June 2, 1945 is Hamill's last day o the Grant. He is presented with a long scroll of thanks and hands over the XO to Slater. He bids Higgie farewell and sets out on his next adventure.



Higgie, me and Mo Slater headed for the gangway

#### Figure 92 Old XO Hamill and New XO Slater with Captain Higginbotham

The crew was aside the ship as Hamill is sent off. The Navy again rotates its men rapidly building on their skills but at the same time trying to minimize the strong personal ties, just in case of battle. The Navy was to have a ship a battle element and the men key parts of the overall weapon system, and to not have personal relationships interfere. So in typical Navy way Hamill is off on his next adventure and the Grant settles down with its new set of officers.



A last look at the Grant 6/2/45 Figure 93 XO Hamill Leaves Grant in Manilla 2 June 1945

## 8.5 The MacArthur Cruise

The MacArthur cruise started June 6, 1945 and ended July 7, 1945. There would be the new captain and the new XO. Higgie was by now somewhat well known and Slater was brand new as XO. Elkert had known Slater as the Gunnery Officer, he had replaced Jerry Marsh, and now he was promoted to XO replacing Hamill. The Navy always moved the people around, and this even included the enlisted men as well. Replacements for the men lost, dead and injured from Leyte, had been replaced and were now integrating into the crew.

MacArthur was a loved and hated man, no one seems to have a neutral opinion. The whole Philippine campaign was his creation to re-establish his image as the savior of the Philippines, and successor to his father he was counsel of the US territory when he was a child. MacArthur was a very complex human being and his relationship with Roosevelt was even more so. Roosevelt ran the war the way the Yankees are run by George Steinbrenner. Roosevelt had his high powered stars, he could manipulate the press to keep the stars out front and the press replied diligently. He had Patton, Halsey, MacArthur, LeMay, Doolittle, and others, even Marshall was in that category. King, Nimitz, Spruance, were shadow men.

One would never want to put King out in front, he might tell you that your shoes were a mess or hit on your wife. Spruance just ran for the shadows, he was a 9 to 5 admiral, albeit thinking all the time, and Nimitz was much too German in his actions, being the true military man. The others were the teams stars, and Roosevelt generally knew how to handle the stars. If people did not like MacArthur, the distaste would not wash onto Roosevelt, it stayed on MacArthur. But if they liked MacArthur that may cause FDR a slight problem, especially is the General decided to run against him.

But now it was mid 1945 and MacArthur was secure. FDR was now dead, Truman, that hat seller from the plains was in the White House and he dare not upset things. MacArthur needed a victory lap. They would be invading Japan and he needed to be in the fore on that operation.

The victory lap was the "MacArthur Tour", a one month royal set of visits to his dominions, accompanied by the Navy, to show his subjects that he was truly back and that he was totally in charge.

Manchester recalls the trip and its reasons<sup>157</sup>:

"He was restless in Manila anyhow. Except for one April trip to, the Marakina Valley, twenty miles northeast of the capital, where Krueger's GIs were battling thirty thousand entrenched Japanese, he hadn't left the city since the arrival of his family, and he said he wanted "a feel" of the combat to the' south. On June 3 he and several members of his staff boarded the Boise for what Eichelberger called, a "grand tour" of Eighth Army battlefields and at the end, participation in the Brunei Bay landing. He would be away twelve days. Part of the trip was nostalgic. "Under very evident stress," Eichelberger noted, he reminisced emotionally about

<sup>&</sup>lt;sup>157</sup> See Manchester, American Caesar, p. 431.

Corregidor as they passed it. On his instructions the skipper retraced his PT-41 escape route to Mindanao and he visited Iloilo, Panay, where he had served after leaving West Point over forty years earlier.

At Del Monte he wanted to see the country club in which he had spent four harrowing days in March 1942, and whence he had flown to Australia. Eichelberger wrote: "After considerable search we found the site - but only the site. Bombs had demolished the building; only the foundations, now overgrown by vegetation, remained to remind one that there once had been riches and luxury in northern Mindanao. And that, though man has only a short memory, nature has none."

Evenings in the cruiser's wardroom the General puffed on his corncob and held forth with his empurpled rhetoric. George Marshall, he told his acolytes, wanted him to back universal military training and the integration of black troops in white platoons.

He wouldn't do either, he said, because they were both "controversial." The troops which were already on their way to him from Europe would be welcome, but he didn't want their generals, not after the Bulge fiasco. He was already planning the invasion of Japan.

Unless the Emperor capitulated, the Japanese wouldn't quit: "The little fellow is a lean enemy because he does not surrender." He looked forward to Soviet entry into the Pacific war; by engaging a million Japanese and taking the sting out of their air force, he reckoned, Stalin would distract the enemy and save thousands of lives. His chief criticism of Nimitz and his field commanders was that they shed their men's lives senselessly. The way they were doing the fighting on Okinawa, where 12,520 marines and GIs were killed and 36,631 wounded, was, he said, "just awful. The Central Pacific command just sacrificed thousands of American soldiers because......" MacArthur was one of many who had problems with blacks on active military service. The Grant had a few blacks, and in those days they were restricted to mess duty. However, unlike many other ships, where there was total isolation, at least with many of the crewmen, the blacks would be social and intermingle. This seemed to be more so towards the end of the War and especially after Leyte. The picture below depicts one of these circumstances.



Figure 94 Grant Crew including African American Crew Member

MacArthur actually went ashore in Brunei leaving the Boise and Grant like sitting ducks in the midst of a raging battle. His Tour was a wandering with intermittent stops where he went to meet the troops, wanting to see the front personally. MacArthur was on and off the Boise with the Grant carefully playing picket, and a local protector. The Grant crew were to be "on" at all time, this was not typical destroyer duty. To many of the crew there was a sense of wasting time while others had fought. This tour duty was not what a fighting ship was for. MacArthur was never one to see the Navy as anything more than a means to an end…and in fact he disapproved of Nimitz and the Marine approach of attacking so aggressively, despite his own approach to the retaking of the Philippines.

Higginbotham recalls many of the details of the cruise:

"We received the operation order for the invasion of Borneo at Brunei Bay, and proceeded to Manila to escort the cruiser U.S.S. Cleveland (CL-55) in which General Douglas MacArthur was embarked. Cleveland's other escort was the destroyer U.S.S. Killen (DD-593), commanded by Jamie Semmes, class of 1936.

As many of the troops taking part in the invasion were Australian, we embarked an Australian Army major to serve as liaison officer during gunfire support of the troops ashore. After sailing from Manila, we joined the rest of the invasion task force and steamed south to Borneo. We entered Brunei Bay just before dawn, and soon thereafter a lone Japanese plane was sighted heading our way, but he turned away before he came within range of gunfire. The landing went smoothly with very little resistance. We fired several gunfire support missions against enemy targets in response to requests from the troops during the day.

At night we took station very close to the beach and fired star shells at intervals to illuminate areas in front of our troops to guard against a surprise counter attack. It had been a long day. By midnight I had been on the bridge for 40 hours, and I told the Officer of the Deck, Lt. B.B. Lyon, that I was going to get a couple of hours sleep and to call me only in emergencies.

We remained in the area for a day or so, and then escorted the Cleveland back to Manila. The next operation was the invasion of Balikpapen on the east coast of Borneo. Once again we were assigned to escort the Cleveland with General MacArthur embarked. Upon joining the task force, we were headed for our position in the screen when we lost feed water pressure to the forward fireroom boiler which was supplying steam to the turbines driving the starboard shaft. The boiler had to be secured and, as steam pressure was lost, the lubricating pumps supplying oil to the turbine bearings stopped.

Our motion through the water kept the shaft turning and, before it could be locked, most of the babbit metal bearing of the turbines had been wiped. We maintained our position in the screen by continuing to steam with the port shaft while the engineering force began the monumental task of fitting spare bearings to the turbines."

Williams remembers the tour in somewhat different detail<sup>158</sup>:

"May 14 Arrived Subic Bay 10:00 a.m. Think Shiny Mann is here. Tried to get ashore to look him up, but couldn't.

May 22 Left Subic Bay 7:00 a.m. Arrived Manila around 9:00 a.m. Came here for the crew to have liberty.

May 23 Went ashore today on liberty. This place is torn up worst than any place I've ever seen. The hay is filled with sunken ships. Tried to locate Philip. A couple pilots said they thought the 10th Air Service was at Clark Field, about 50 miles from here.

May 26 Left Manila at 8:00 a.m. Arrived Subic Bay at noon. Went ashore with beer party on shore patrol duty.

May 27 Found Shiny this morning. He came over to the ship this afternoon and spent the night with me.

June 1 Left Subic Bay about 8:00 a.m. Arrived Manila 12:00 noon.

June 3 Left Manila 6:00 p.m. with another destroyer, The Killen and a cruiser, The Boise. We are making a tour of the Philippines with MacArthur. Be is on the cruiser.

<sup>&</sup>lt;sup>158</sup> See Williams Diary.

June 4 Arrived Anchorage Bay, Mindoro 8:00 a.m. Left 1:00 p.m.

June 5 Arrived Cagayen, Mindanao 8:00 a.m. Left 6:00 p.m.

June 6 Arrived Cebu City, Cebu 8:00 a.m. Left I :00 p.m.

June 7 Arrived Illollo, Panay 7:00 a.m. Left 5:00 p.m.

June 8 Arrived Port of Princesa, Palawan 9:00 a.m. Left 2:00 p.m.

June 9 Joined invading troops.

June 10 Shelled Labuan Island this morning. Five miles off of Borneo. Australian troops went ashore at 9:00 a.m. No opposition for first three miles;, Fired call fire in the afternoon. One Jap plane came over this morning.

June 11 Fired a little call fire this morning. Troops are four mils inland. Left at 2:00 p.m. to continue tour of Philippines with MacArthur.

June 12 Arrived at Jolo 2:00 p.m. Natives around the ship in canoes as thick as flies trading. Left 4:00 p.m.

June 13 Arrived Ilavao, Mindanao. Left 4:00 p.m.

June 14 Arrived Zamboanga, Mindanao 9:00 a.m. Left 12:00 noon.

June 15 Arrived Manila 10:00 a.m. End of tour with MacArthur."



The Tour was actually a month in duration. Manchester states it was twelve days, however the Grants log states otherwise, but the actual time for MacArthur on board is the twelve day period. MacArthur is two days in Brunei alone watching the battle and the rest of the tour is a few hours here and there. The log below details how the actual tour was followed.

From	То	Start	End
Mindoro, P.I. (Begin	Palaun Bay	6/4/45	6/4/45
MacArthur Tour)			
Mindanao, P.I.	Macajolar Bay	6/5/45	6/5/45
Cebu, P.I.	Cebu	6/6/45	6/6/45
Panay, P.I.	Iloilo	6/7/45	6/7/45
Palawan, P.I.	Puerto Princesa	6/8/45	6/8/45
North Borneo	Brunei Bay	6/9/45	6/11/45
Jolo Jolo, P.I.	Julo	6/12/45	6/12/45
Mindanao, P.I.	Davao	6/12/45	6/13/45
Mindanao, P.I.	Zamboanga	6/14/45	6/14/45
Luzon, P.I.	Manila Bay	6/15/45	6/16/45
Luzon, P.I.	Subic Bay	6/16/45	6/24/45
Luzon, P.I.	Manila Bay	6/24/45	6/27/45
North Borneo (End MacArthur Tour)	Balikpapan	7/3/45	7/4/45
Sula Sea, P.I.	Tawi Tawi	7/5/45	7/6/45

Upon completion of the Tour the Grant returns to Manila.

Baldy Carlson remembers parts of this trip as follows:

"On our second cruise, we left Frisco on March 11, 1945 arriving in Pearl on March 17. We now had a new captain, Higginbotham. We then left Pearl and headed for the Marshall Islands. We arrived at the Marshall Islands on April 30, 1945 and left there on May 1, 1945. The next place was Ulithi in the West Carolinas arriving on May 4, 1945 and leaving on May 7, 1945. We hit Leyte of the Philippines again on May 14,1945 and left May 19,1945. The next place to visit was the Subic Bay Naval Base on Luzon in the Philippines, arriving May 21, 1945 and left on May 22nd. We now arrived in Manila Bay on Luzon of the Philippines. What a mess when we arrived on May 22, 1945. The whole harbor was loaded with sunken ships.

Manila itself was devastated from bombings and I have actual pictures to prove it. 1'11 try to remember to enclose a copy of a pencil-type drawing made of me. They warned us not to go too near Clark Air Field because there were still Jap snipers there. We wanted to see the countryside, but when we got close we could hear sniper bullets so we got out of there fast! We left Manila Bay on May 26, 1945. We then went a short distance back again to Subic Bay and once again a return to Manila Bay. AU this ended by leaving Manila Bay on June 3, 1945. This was the final stopover for our second cruise. The General MacArthur Cruise consisted of another destroyer, and one cruiser and we were to make a complete tour of the Philippines for him.

After leaving Manila Bay on June 3, we arrived at Palaun Bay on Mindoro in the Philippines on June 4,1945 and immediately left the same day. I was now aboard the cruiser . We then proceeded to Macajolar Bay, Mindanao in the Philippines arriving the next day, June 5, 1945 and leaving the same day. The next stop was Cebu on Cebu of the Philippine Islands. We arrived June 6, 1945. I should tell you that whenever we saw MacArthur coming by in his special boat,

we all ran to the other side of our ship so we didn't have to salute him. We were fighting a war and we had more important things to do than to salute MacArthur!

Somewhere between here and soon to go to North Borneo, we crossed the equator (this is where I became a shellback as explained earlier) and also found out later we traveled through the heaviest mine fields by the Japs. This spot also happened to be the deepest part of the Pacific Ocean -8 miles deep. This area was called the Sula Archipelago. We also left Cebu the same day we arrived. The next place was on Panay, still in the Philippines, arriving June 7, 1945 and we also left the same day. On June 8, 1945 we were on Puerto Princesa which was the island of Palawan in the Philippines. We left here also the same day. They have us listed as in a shore battle of Brunei Bay in North Borneo arriving on June 9,1945.

We only stayed until leaving on June 11, 1945. There wasn't much left of the Japs here. Now it was back to the Philippines to Julo Jolo arriving June 12,1945. We left the same day. The next place was Davao on the island of Mindanao of the Philippines arriving June 12, 1945.

From here we left the next day, June 13, 1945. This next place was interesting because they told us that this island is the spot for "tailless monkeys."

This spot was Zamboanga on Mindanao in the Philippines. We arrived June 14,1945 and left here the same day. We went back to Manila Bay on Luzon of the Philippines on June 15, 1945 and we left the next day. Back to the Naval Repair Base at Subic Bay also on Luzon, arriving June 16, 1945 and stayed there until leaving on June 24, 1945. Then, back again to Manila Bay on June 24) and then leaving June 27) 1945. Final stop of the MacArthur Cruise came when we went to the port of Balikpapan in North Borneo arriving here on July 3) 1945 and left on July 4j 1945. We arrived at a place called Tawi - Tawi in the Sula Sea in the Philippines on July 5, 1945 and left the next day. Back again to Balikpapan at North Borneo arriving on July 7, 1945 and leaving July 9, 1945. On to Subic Bay Naval Base again on Luzon of the Philippines arriving July 14, 1945. We stayed a few days, leaving on July 19, 1945. Back once more to Manila Bay arriving July 19, 1945 and stayed until we left July 24, 1945."

Elkert also remembers the MacArthur Tour and the mixed opinion of the General. He recalls<sup>159</sup>:

"They (the crew) booed him almost all the time. He would get on and off (the Boise) and make speeches. One time a Jap plane flew down and was shooting and just missed him. He just kept making the speech!"

<sup>&</sup>lt;sup>159</sup> From oral interview with Elkert in Pennsylvania 29 October 1945.

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Figure 96 Dispatch from MacArthur to Grant et al

McGiniss recalls the MacArthur cruise and how the men felt when the General's brazen appearances drew Jap suicide pilots for one last chance and in so doing endangered many men:

"There were Jap planes that flew over and the Grant had to create a smoke screen and everyone risked their lives for this one man one man."

Gilbert and many others recalled the unnecessary boldness of MacArthur and how this often drew the level of danger to a higher level. The men just wanted the War over and no one wanted to be the last one killed, especially just for a publicity stunt.

Finally Higginbotham recalls his meeting with MacArthur at the end of the "Tour":

"Balikpapen was a major port for the export of Borneo oil, and there were large storage tanks on the bluff overlooking the harbor. It was feared that the Japanese might flood the beaches with oil from these tanks and set it afire as our troops tried to land. Accordingly, our Air Force bombed the tanks prior to the invasion. We could see the columns of black smoke rising from the tanks a hundred miles or so before we got to Balikpapen.

The approaches to the harbor had been extensively mined, first by the Dutch before they left, then by the Japanese to prevent our submarines from penetrating the harbor, and then by aerial mines laid by Allied aircraft to hamper the Japanese in their use of the harbor. Our mine sweepers cleared a channel to the landing beaches and to small areas where destroyers could go close inshore for gunfire support missions.

We were still steaming with only one shaft which made maneuvering in the small swept area very difficult. We fired several missions against enemy machine gun emplacements and, according to the gunfire observer ashore with the troops, the machine guns were destroyed. Before the operation ended, our engineering force had completed repairs to the starboard engines. They had worked day and night in the intense heat of the engine room to get the job done. I am convinced that the American sailor can do anything.

At night the cruisers and destroyers retired from the vicinity of the mine fields and steamed in formation. During the night I heard the destroyer next to me in the screen say on the voice radio, "Roger," however I had not heard the signal from the task force commander that he was acknowledging. A moment later I heard the destroyer say, "Wilco," which indicated that the signal had been executed. As I watched through the binoculars, I saw him start to turn, so we followed him around. Our radio receiver had partially failed so that we could receive signals transmitted from close aboard, but not from any distance. This sort of thing went on for the rest of the night while our radio technicians searched for the trouble. The trouble was finally isolated to a faulty relay in the antenna circuit.

We left Borneo in company with the Cleveland. On our way back to Manila we stopped at the various places in the Philippines at which American troops had landed.

The routine was the same at each place. First a movie camera crew would go ashore and set up their cameras. Then General MacArthur would go ashore with the cameras grinding away. As soon as all were back aboard the Cleveland we would sail to the next place. We saw most of the Philippines from the sea in the process.....

Upon returning to Manila, Jamie Semms of the Killen and I were invited aboard the Cleveland to meet General MacArthur. The General was wearing an open shirt khaki uniform with the five stars on each collar, his old battered cap and was smoking his corncob pipe. He soon put us at ease as we sat under an awning on the deck of the Cleveland and drank coffee. In the course of the conversation the General remarked that he wished he were 30 years younger so that he might command a destroyer as we were doing. I'm sure that he didn't really mean it, but it gave an insight into his leadership that complemented his genius for planning and executing military operations.

While in Manila, Captain B.J. Mullaney came aboard the Grant and hoisted his pennant as our Division Commander. He had been recently promoted to Captain following the award of the Navy Cross for action off Okinawa while commanding the destroyer U.S.S. Hadley (DD-774). The Hadley, in company with the destroyer U.S.S. Evans (DD-552), had been credited with shooting down 10 Japanese Kamikaze planes while on picket station guarding the approaches to the carrier task force. "BJ" was quite a character. Not long after arriving on board he sent for the ship's doctor and asked for a bottle of medicinal whiskey. He was thoroughly experienced in destroyer tactics and, despite his fondness for the bottle, he was an excellent destroyer officer from whom I learned a great deal."

# 8.6 The End of the MacArthur Cruise

At the end of the tour, the Grant was sent to assist in North Borneo. Everyone knew that the "big boys" in Washington and Nimitz and the "brass" were planning the invasion of Japan. It was not mid July, 1945, and the invasion would most likely be in a couple of months. The scuttlebutt was going around that the Grant was just sitting still until all the fleets were assembled. Okinawa was over. The Americans had just taken the last bit and it was bloodier than any of the others. The Marines had gloried in Iwo Jima and the Army had bled in Okinawa.

Fire control man Terry McGarty had just received a letter from his wife who was still in Berkeley, California. His brother had been very badly wounded in Okinawa, he was a Sergeant in the Army, a machine gun platoon, and he lost all his platoon, and he had managed to kill more than fifty Japs during one of their suicide attacks. He was just awarded the Distinguished Service Cross. He wondered what was happening to his other brother in Europe now that his war was over but he looked north ans wondered what was to ahead for the Grant.

## 8.7 Addition of Some New Friends

During this period the ship picked up some new passengers. No one remembers where or when but they all remember it was on Higginbotham's watch. The friends were the monkey, the dog, and the goat.



Figure 97 Dog and the Ship

Sniper was given a home on deck. He had a house, was sheltered from the sun, had food and water, was looked after, walked, talked to, and had a large extended family.



Figure 98 Sniper and Home on the Grant

Sniper's home was further glorified with an official Navy stencil of his name and his home was airy so he was comfortable no matter what the weather.



Figure 99 Sniper's Home and Official Navy Lettering

Then there was the monkey. No one recalls exactly where this guy came from. However they do remember that it with Higgie in command and that it frequently caused one racket after another. It drank, smoke, spit, screamed, and other functions one would most commonly expect out of a monkey, or a five year old!

Higgie does have a memory of the monkey, actually two monkeys:

"At one of our stops at Zamboango, while we were anchored off shore, some natives rowed out to the ship in a dugout canoe and traded two monkeys to one of our crew for a couple of cotton mattress covers. I knew nothing of this until the boat had left the ship and the monkeys were brought to the bridge to get my permission to keep them. Since the alternative to keeping them was to throw them overboard, the monkeys remained. They loved to climb the mast and ride around on the rotating radar antenna with their tails swinging in the wind. We later lost one of the monkeys when we went alongside a tanker at sea for underway fueling. He scampered across the fuel hose between ships and the last I saw of him he was riding around on the tanker's radar."

The monkey seems to play an interesting role. What kind of monkey, where exactly did it come from, how did it live on the Grant and what did it eat, all questions which have different answers depending upon who one speaks with.

However there seems to be one thing certain, and that is how the monkey found a new home. During one of the re-supply missions they had lines across to the re-supply ship. One going and one coming. In the final stages of re-supply, rumor had it consisted of Captain Higginbotham transfer of some form of potable, the monkey, also as rumor has it, decided that he would imbibe first and ran across the unused rope towards the supply ship. Higgie seeing the opportunity cried:

"Cut the rope!" and the poor monkey fell towards the side of the supply ship, but one must remember that this is a monkey. So up the rope the monkey went, undeterred. His goal was not the supply ship, but the potables. Some said he often got to them before the Captain. Up the rope, hopping across the supply ship onto the remaining rope and then towards the final package as it went towards the Grant.

"Faster!" shouted Higginbotham, "Faster!"

The roped pulled the package clear and then the Captain yelled:

"Cut the rope!"

and again the monkey, like a trained ballerina, flew in the air, one arm extended as if in a farewell wave, slam bang into the side of the supply ship. The monkey went back up the rope.

The Captain shouted:

"Now its your monkey..."

Farewell to the crewmember, his new billet would hopefully be a welcome home.



Figure 100 The Monkey

Sniper the dog had a somewhat better fate. He was picked up somewhere, one guesses the Philippines and did eventually end up on some other island. In a strange fashion with sailors moving animals around like this from place to place if there is some roles for sailor in natural evolution, perhaps they help spread species in ways we would never fully understand, and this opens a whole set of new scientific avenue of study.



Figure 101 Dog and Goat

Ed Pfeifer recalls:

"Sniper was black shiny dog, named after "Sniper Ship" article, monkey somehow was gotten, was nuisance, monkey got rid of when crisply when monkey went over rope Higgie sent monkey to supply ship; MacArthur was show off and self promoter; has sister in law first husband was in Philippines when captured, MacArthur was "dug out Doug" he will never be there; Higgie kept MacArthur dispatches, like get "saved the world" When burial at Leyte first Kamikazes attacked, now at Manus another possible attack and Nisewaner and Pfeifer dive under truck, Nisewaner tells Pfeifer "Every time I go to funeral with you we get attacked!" Morison statement "MacArthur was maintaining destroyers when he dd not need them""

Homer Burns also recalls:

"The Monkey sat on top of radar, the SG rotating radar. He especially liked this when he had been drinking, the "pink lady juice". The Monkey was also given cigarettes the crew would smoke them down and give the monkey the short hot burning cigarette. The monkey would never learn, he would always try to eat the cigarette, and then get his tongue burned and run around screaming his head off."

#### 8.8 Borneo

In Karig's book, Battle Report, he begins the section on Borneo as follows:

"WHILE organized resistance was nearing an end in the Philippines, elements of General MacArthur's military and naval forces turned to the southwest once more to fight a phase of the war few persons, except those who were engaged in it, remember."

Borneo is a critical element in the overall strategy. Although Japan had been neutralized in its naval access to Borneo it was the source of oil and this would become critical. MacArthur believed he must cut it off. In addition, the Navy was now moving northward, Iwo Jima and

Okinawa were taken and the invasion was next. It was not until July 29, 1945 that MacArthur was told about the atomic bomb. Just days before Hiroshima.

In fact it has been conjectured that Marshall may have felt that MacArthur would have politicked against it for two reasons; first he wanted to spare the Japanese looking forward to occupation and second he really wanted to lead a land war in Japan. Even at this time Marshall may have influenced Truman. Truman was very uncomfortable about the antics of MacArthur. Yet MacArthur was still an iconic figure.

The plans for the attacked were in three distinct areas:

"The plans for Borneo drawn up in General MacArthur's Manila headquarters included three main landings: at Tarakan, oil-rich island of about 160 square miles close to Borneo's northeastern tip; Brunei Bay, to the northwest; Balikpapan, to the southeast-in that order. Senior naval commander for the first assault to Tarakan was Vice Admiral Barbey. He brought with him Rear Admirals Berkey and Royal, the former to furnish cruiser close cover and the latter to command the Tarakan Attack Group."

The following map shows these three major locations; Brunei Bay on the northern coast, Balikpapan on the south east coast and Tarakan on the north east coast.



Figure 102 The Borneo Campaign Brunei, Balikpapan, Tarakan

The Grant was there on the following:

North Borneo	Brunei Bay	6/9/45	6/11/45
North Borneo	Balikpapan	7/3/45	7/4/45

North Borneo	Balikpapan	7/7/45	7/6/45
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Borneo was strategic for the Japanese<sup>160</sup>. It had oil and it controlled the sea lanes through this part of the South Asian seaplanes. Capturing Borneo was important to MacArthur but now the British wanted to play a role. The nature of the forces now started to include many more British forces. Tarakan was also oil rich and the attack on this island like collection of Borneo would be one of the first. The Grant was not playing a part there. Invasion of Tarakan was May 1, 1945. The assault forces here were primarily Australian troops. Brunei is a separate entity with a Sultan and at the time of the War a British Protectorate.

The Japanese easily conquered Brunei and Brunei was a major source of oil. June 10, 1945 was set to be the day to land at Brunei. The Grant was there with MacArthur as part of the Group. MacArthur actually went ashore during the invasion and this was felt by many to have further endangered the troop. There was strong resistance but by the 17<sup>th</sup> of June moat of the strategic goals had been achieved.

Balikpapan was the last of the three major Borneo campaigns. This was another oil rich location just west of the Celebes. It required eighteen days of bombardment before invasion. Extensive underwater demolition team work was required to clear the harbor. Invasion started on July 1. The Grant shows up on July 3 with MacArthur in tow again. The Australians requested gunfire support and many cruisers and destroyers were provided, the Grant included. By the 15<sup>th</sup> of July only one destroyers was required. The Grant had left by the 6<sup>th</sup>.

Regrettably the full liberation of Borneo did not occur until mid September, the focus slipped to Japan and the result was that Japanese puppet governments remained in power. This was a slip up in transferring between MacArthur and Lord Mountbatten.

Pfeifer recalls:

"Two campaigns followed the MacArthur tour; Brunei Bay and Balikilpan. On Baliklapan the Japs fired to the oil wells were in sight at 13 miles and we could read newspaper from lights of burying oil wells. Then went to Eniwetok in preparation for Japan."

Higginbotham recalls a few matters:

"We sailed from Manila to Subic Bay, about 50 miles up the coast of Luzon, and rejoined the cruiser/destroyer task force. During one of our periods at sea, we were in company with the Australian cruiser H.M.A.S. Hobart and the Australian destroyers H.M.A.S. Warramunga (FFH152) and H.M.A.S. Arunta (FFH151). On the morning of the 4<sup>th</sup> of July the British Admiral in the Hobart sent us a message which read, "Congratulations on this anniversary of the glorious day when the British Empire was liberated from the yoke of the American colonies.""

<sup>&</sup>lt;sup>160</sup> We follow and rely upon Morison for a good overview of Borneo. See Morison, Liberation of Philippines, pp. 255-277.

Williams recalls some of the Borneo action<sup>161</sup>:

"June 17 Left Manila 8:00 a.m. Fired anti-aircraft practice fire. Arrived Subic Bay.

June 20-21 Out a half day each day for practice firing. Shiny and Philip came over for me the evening of the 21st. Philip and me spent the night with Shiny. Met Titus and Crawley from Petersburg. They are stationed on the beach with Shiny. Was glad to see them all. Took several pictures. We went out the rain the jungle somewhere to a dance.

June 24 Left Subic Bay 8:00 a.m. Arrived Manila 12:00 noon. Fired practice fire with machine guns on the way up.

June 27 Left Manila 6:00 p.m. with the liilliaeo and Cleveland for another landing on Borneo. MacArthur is on. the Cleveland. Pulled into Tawi tawi for a few minutes this morning. Put all pollywogs through the initiation. They really took a beating.

June 30 Arrived Balikpapari, Borneo 5:00 a.m. Oil wells are burning.

July 1 Troops landed on beach 9:00 a.m. We refueled and delivered mail to cans and cruisers.

July 2 Fired on Borneo most of the day.

July 3 Left Borneo 2:00 p.m. with Australian ships to get ammunition.

Jul 4 Arrived Tawitawi 12:00 noon.

July 5 Left Tawitawi 6:00 pm. for Borneo.

Jul 7 Arrived at Ballkpapan, Borneo 8:00 a.m. Fired star shells an night.

July 8 Fired call fire on Jap gun positions today. Fired star shells an night.

Jul 9 Fired call fire on beach. Left Borneo at 6:00 pm.

Arrived Tawitawi 10:00 a.81.

July 10 Left Tawitawi 9:00 a.m. for Subic Bay.

July 14 Arrived Subic Bay 8:00 a.m. Spent night with Shiny. Shiny and Cralle spent the night with me.

July 19 Left Subic Bay 8:00 a.m. Arrived Manila 1:00 p.m.

July 26 Left Manila and went back to Subic Bay, Philippines.

<sup>&</sup>lt;sup>161</sup> See Williams Diary.
July 28 Left Subic Bay 7:00 a.m. for Eniwetok, Marshall Islands."

Karig relates one of the tragedies to Admiral Royal who commanded the attack group of which Grant was apart<sup>162</sup>:

"After having directed the amphibious operation, Admiral Royal, satisfied that all was secure, pulled out of Brunei Bay about 6: 00 P.M., June 17, aboard his flagship ROCKYMOUNT. He was going back to Subic. The fire support ships were divided into three sectors: The cruisers BOISE, HMAS HOBART, and PHOENIX; the destroyers KILLEN and A. W. GRANT were stationed off Labuan; the cruiser NASHVILLE, HMAS ARUNTA and CONNOR off Muara, and the destroyers CHARRETTE, BELL, and BURNS off Brunei Bluff. Bay "for a little rest." Next day Admiral Royal suddenly collapsed from an overworked heart and was dead, as much a battle casualty as if he had been struck by a sniper's bullet."

In this case the only fatality in the attack group was the Admiral and that due to a heart attack.

Karig finally comments:

"Japanese were still holed up, strangely at peace and worrying more about vegetable gardens than weapons. Now the Seventh Fleet could steam unmolested from the north tip of Luzon across the equator to Macassar Straits, where so shortly before the Rising Sun had monopolized the seaways, But the mail from back home was all about Iwo Jima and Okinawa. Nobody had heard of Borneo, and probably would have dismissed it with a "What? No wild women?""

The battle at Borneo achieved several strategic things. First it finally eliminate Japanese sea, land and air power in the southwest Pacific. One could now move unabated anywhere from Singapore to Australia. It also provided much need oil resources, albeit Dutch in ownership, but the Dutch were with the Americans and British. It also allowed Churchill to feel he was part of the Pacific victories. This was a critical sticking point with FDR because although the Brits had provided resources they were not getting first billing. In many ways Borneo was the last battle of World War II. However no one yet knew it.

Thus when the Grant sailed from this battle ground it was finally leaving harms way. Yet the crew would still be led to think that the worse was yet to come.

<sup>&</sup>lt;sup>162</sup> Karig, Victory in the Pacific, p. 267 and footnote on that page.

### 9 VICTORY, JAPAN, AND HOME

Ecclesiastes.

FOR everything there is a season, and a time for every purpose under heaven: a time to be born, and a time to die; a time to plant, and a time to pluck up that which is planted; a time to kill, and a time to heal; a time to break down, and a time to build up; a time to weep, and a time to laugh; a time to mourn, and a time to dance; a time to cast away stones, and a time to gather stones together; a time to embrace, and a time to refrain from embracing; a time to seek, and a time to lose; a time to keep, and a time to cast away;

a time to seek, and a time to lose, a time to keep, and a time to cast away, a time to rend, and a time to sew; a time to keep silence, and a time to speak; a time to love, and a time to hate; a time for war, and a time for peace.

Marshall Islands	Eniwetok	8/3/45	8/16/45
Aleutian Islands	Adak Alaska	8/24/45	8/31/45
Northern Honshu	Ominato Bay	9/7/45	9/23/45
Northern Honshu	Aomori	9/23/45	9/23/45
Northern Honshu Northern Honshu Northern Honshu HI/Pearl Harbor	Ominato Bay Hachinohe Ominato Bay Oahu	9/23/45 10/19/45 10/28/45 11/23/45	10/19/45 10/28/45 11/14/45

#### 9.1 Preparing for Invasion

The Grant sails to Eniwetok in late July arriving there on 3 August 1945. It sets sail again on 16 August not yet knowing that the Japanese had surrendered. On 6 August the atomic bomb was dropped on Hiroshima, and some of the crew had an inkling of what it meant. Notwithstanding the Hiroshima and Nagasaki actions, the Grant was outfitted with Navy foul weather gear and clothing and equipment to handle the Aleutian winter, which they expected to be in very soon.

To most it was just preparation for the next step,

Higginbotham recalls<sup>163</sup>:

"Towards the end of July our division received orders to proceed to Eniwetok to be outfitted for cold weather and then proceed to Adak, Alaska. From my duty in Washington I knew that the Russians had agreed to enter the war against Japan three months after the German surrender in Europe. The American Navy was to send convoys with war material to the Russians via La Perouse Straits between Hokaido and Sakhalin Island.

<sup>&</sup>lt;sup>163</sup> See Higginbotham Diary, Grandfather Remembers.

The evening before we were to sail Captain Mullaney was invited to the Australian destroyer Arunta for dinner. As he left the Grant I asked him when he wanted a boat to bring him back from the Arunta. He replied that he would send a message from the Arunta for a boat. By midnight when we had received no message, I sent a message by flashing light asking Mullaney when he wanted the boat. The answer came back, "0800 tomorrow morning." I replied, "We sail at 0700."

He replied, "Too early. Sail at 0900." I sent back, "Sorry, but our common superior says to sail at 0700." He replied, "Sail without me." It was all in fun, so I sent a boat to the Arunta to wait for him. He returned aboard about 2 am in good spirits from lots of good British scotch whiskey. The next morning he asked me to come to his cabin and said, "Captain, I won't be coming to the bridge today. You make the signals to the division." So I got the division underway and set course for Eniwetok via the San Bernardino Straits.

Upon arrival in Eniwetok, we set about the business of getting the ship ready for cold weather. Steam lines were installed about the decks to melt ice, non-skid paint was applied to the decks, cold weather lubricants were used in topside machinery and the crew was outfitted with foul weather clothing.

On the 6<sup>th</sup> of August, 1945, Ensign Hartung reported to me that he had heard a news broadcast over the wardroom short wave radio saying that a new powerful bomb had been exploded over the Japanese city of Hiroshima and that President Truman had issued an ultimatum to the Japanese to surrender or experience "a rain of destruction such as the world has never known." Ensign Hartung literally lived by the wardroom radio during the next few days and kept me advised of the bombing of Nagasaki and the Japanese surrender.

On the day of the surrender I ordered that two cans of beer per man be served in the mess hall and opened a bottle of medicinal whiskey in the wardroom to drink a toast to victory. Normally the beer was kept under lock and key and taken ashore for picnics on atolls. Drinking on board ship was forbidden by Navy regulations, but I felt that the occasion warranted bending the rules.

From the crew perspective the end was a bit more enthusiastically received.

Carlson recalls:

## "THE WAR WAS OVER!

Terry McGarty, a fire control man and myself were sitting together on deck when we heard the news and both of us cried like babies. So what, we, before long, would be with our loved ones. We had been planning to invade the islands of the Japanese because we had now became a part of the 12th Fleet.

Before that we had always been with the 7th Amphibious Fleet under Admiral Kincaid. We had been issued all sorts of cold weather gear to travel to Alaska on our way to invade Japan. Because the orders had already been issued, we still went on the sea route planned, but there

would be no invasion because of the war being over. We left the Marshalls finally on Aug. 16, 1945."<sup>164</sup>

## 9.2 Honshu Japan

Baldy Carlson remembers:

"So what, we, before long, would be with our loved ones. We had been planning to invade the islands of the Japanese because we had now became a part of the 12th Fleet. Before that we had always been with the 7th Amphibious Fleet under Admiral Kincaid. We had been issued all sorts of cold weather gear to travel to Alaska on our way to invade Japan. Because the orders had a)ready been issued, we still went on the sea route planned, but there would be no invasion because of the war being over. We left the Marshalls finally on Aug. 16, 1945.

We arrived at Adak, Alaska in the Aleutian Islands on Aug, 24, 1945, We left on Aug. 31, 1945. We then arrived at Onlinato Bay on the Northern Honshu Island of the Japanese Islands on September 7, 1945. This spot was where the main Jap fleet operated from during the war. There were very few ships left here now. We departed here on September 23, 1945.

Our next stop was Aomorl on the Northern Honshu Island of the Japanese and I can't remember stopping here. We arrived and left the same day, September 23, 1945. We returned again to Ominato Bay on Northern Honshu of the Japanese on Sept. 23rd. We stayed here until we left on Oct. 19, 1945. I had my birthday here on September 28th. I was 26 years old. The next stop was a place called Hachinohe on Northern Honshu of the Japanese which was Oct. 19, 1945.

During the stay here, we anchored out a short distance in the ocean and traveled to and from land by way of A motor whale boat whenever we had liberty. It happened that we stayed there until Oct. 28, 1945 and the next day was Bette Jayne's birthday. While here, I was very fortunate to find out where the Japanese had stored all the Japanese rifles.

A couple sailors and myself probably got about 100 or so rifles because everyone would like to take home some rifle souvenirs. This was legally approved by Lieutenant Slater, the executive officer of our ship. We spread the rifles out among the other guys and I kept two for myself and some were sent to my house that I redelivered to some other sailors.

One of the rifles Marion gave to a Baptist preacher when she was under his ministry in Worcester, MA and he came to speak at a Baptist church in New Haven, CT. (We were living there.) It amazed me to see old American-type cars and even fire engines that had been manufactured in our country on roads in Hachinohe. Besides this, we had to go on board Japanese fishing vessels which were loaded with live ammunition.

<sup>&</sup>lt;sup>164</sup> From Notes of Carlson.

Stamped on the boxes was the label "Made in U.SA. by Remington Arms Company, Bridgeport, CT." Going out to sea with these fishing boats and the Japanese people on board were reluctant to throw these boxes overboard. To expedite this we had to reach for our guns in our holster to make them understand because we did not know the language. We left Hachinohe on October 28, 1945 and proceeded to Ominato Bay, arriving the same day. Our captain now gave us a choice to stay beyond Nov. 14th for additional fuel or proceed on that date to Pearl Harbor. You can imagine what the crew's reply was even though there was a danger of riding the seas with not too much fuel aboard.

We definitely left November 14, 1945 from Ominato Bay and arrived in Pearl Harbor in the Hawaiian Islands on November 23rd, 1945. Boy, when we did get to Hawaii, the ship was riding high in the water because the fuel was so low. Must have been running on fumes! Everybody's concern now was in getting enough points to get discharged from the service.

We left the Hawaiian Islands Q don't remember the date). It was our last trip on to the U.S.A. and pulled in to Bremerton, Washington. I immediately sent a telegram to my folks that I had a banana split, plenty of milk to drink, strawberry shortcake, and pickled herring! When I finally reached home, they thought I had been drunk, but I wasn't! The Navy sent special train cars transporting anyone who was going East to be discharged from the service.

I finally arrived in Boston and was discharged from the service on December 15, 1945. They gave me enough money to take the train to Worcester. And I did."

Williams remembers in his Diary:

"August 3 Arrived Eniwetok 12:00 noon.

August 15 Japan surrendered.

August 16 Left Eniwetok, Marshalls 7:00 a.m.

August 24 Arrived Adak, Aleutians 10:00 a.m.

August 30 Went ashore in naval base at Adak.

August 31 Left Adak at 6:00 a.m. for Japan.

September 7 Arrived at Ominato, Honshu Island, Japan at 5:00 a.m. Found our first floating mine and exploded it. Stayed outside of bay on picket duty."



Figure 103 Captured Flags and Spent Shells



Figure 104 Capture of Japanese Arms, September 1945

Higginbotham remembers:

"We sailed for Adak and joined the North Pacific Force. After a couple of days the force sailed for Japan to support the Army occupation forces. Our destination was Ominato on the northern tip of the main island of Honshu. The voyage was uneventful, and in a few days we could see the coast of Japan. It was a strange feeling to sail through the heavily mined Straits of Tsugaru between Hokaido and Honshu. The Japanese had provided us with charts showing the location of the mine fields and the clear channels. We proceeded on past the city of Aomori into Ominato Bay and anchored off the Japanese naval station.

Our initial task was that of supervising the Japanese as they disarmed. Munitions of all types were brought to a pier and loaded on barges that were towed to sea where the ammunition was dumped overboard. We sent a small party ashore each day to supervise the loading of the barges, and a couple of our men went to sea with the barges to insure that it was dumped. The Japanese economy was in a serious condition. The only vehicles we could see ashore were old charcoal gas burning trucks. The only food seemed to be vegetables grown locally.

Another of our tasks was following behind our mine sweepers as they swept the mine fields. When the sweeps cut the mooring cable of a mine, the mine floated to the surface and we exploded it by firing 20mm and 40mm shells at it. I kept a 25 caliber carbine rifle on the bridge which I fired at the mines but I doubt that it had much effect.

The Grant received an independent assignment to proceed to Hachinoe on the northeast coast of Honshu to supervise the dumping of ammunition. Hachinoe was a railhead, and train loads of ammunition were brought there from inland depots for dumping. The harbor was unprotected from the ocean swell and we rolled heavily at anchor. One day I received a report that the Japanese were refusing to take the barges to sea because of the rough weather. I took my gig ashore to talk to the Japanese officer in charge. He was a retired captain in the Merchant Marine and spoke very good English. He apologized for the reluctance of his people to take the barges to sea and explained that they were landsmen rather than seamen. Nevertheless, the barges went to sea with no untoward incident.

During our stay at Hachinoe, Captain Mullaney and I were invited to have dinner with Major General Bell who commanded the U.S. Army of Occupation in the area. General Bell had commandeered a small western-style house, and we had a very pleasant evening. It developed that he had no water pitcher for his mess, so our ship's metal smith fabricated one for him from an empty aluminum powder can.

As we were hoisting the anchor to leave Hachinoe, the normal reports came from the anchor detail on the forecastle: "Chain is up and down, anchor aweigh, anchor in sight, clear anchor, etc." But just as the anchor was entering the hawse pipe, there was a large splash. The mooring swivel in the chain had broken and we lost the anchor. As we had a second anchor and not much means of salvaging the lost anchor, I decided to leave it there. I suspect the anchor is still lying on the bottom of Hachinoe Bay.

On our way back to Ominato we received orders to rendezvous with the destroyer U.S.S. H.L. Edwards (DD-619) to pick up a Japanese pilot who the Edwards had rescued after his plane had been forced down by engine trouble. We went alongside the Edwards at night in the Tsugaru Straits for an underway transfer by high line. Upon his arrival on board, the pilot was taken to the wardroom where an officer armed with a pistol stood guard while the pilot had something to

eat. Upon arrival at Ominato, we sent him ashore by boat to the naval station. The next day we received a nice message from the local Japanese authorities thanking us for bringing him home."



Figure 105 Captain Grover Higginbotham

Higginbotham also remembers sending the men ashore:

"We were now allowed to send small liberty parties ashore. One day while I was walking about the town I discovered a small shop which sold silk paintings that were rolled about a wooden rod like a scroll. I bought a few that were later framed by Macy's Department store in New York and which still hang in our living and dining rooms."

Somehow he remembers the silk paintings whereas the men who received liberty were cautioned about other things, namely the women who were around. There are some vague un-attributed memories of houses of ill repute being instantly established in each port to service the new occupants. The following is a copy of Higgie's landing and leave directions.



Bottom line, Higginbotham recommends quite strongly to all crew members:

"Stay away from the Japanese women. Leave them strictly alone."

It is not at all clear how closely this was followed. One thing is certain, the crew did recover many Japanese rifles since then are evident as a souvenir in every home one goes into. Also a few flags, and other trifles that can be collected and brought back home.



Figure 107 Memo from Capt Higginbotham Page 2

One thing the men do remember is the explosive disposal detail. Their job was to dispose of the unexploded ammunition which had been collected at the port. This meant loading it on the ships and barges and bringing it to the harbor and then dumping. The local Japanese soldiers would be used in the manual work, the Grant crew would "supervise". As one story goes the men were watching the local Japanese on one of these barges, fully loaded with many types of live ammunition, tone of shells, and they looked down at the Japanese and saw them smoking and dropping the cigarettes that they were paid for helping down into the live ammunition. The thought through the men's minds were "Here we get through the War and we end up getting killed by the Japs after all when this barge explodes!"

The Grant was called upon to rescue a Japanese officer whose plane went down near the ship. They received a thank you from the Japanese. The crew did not know how to accept this rapid change of heart.

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## 9.3 Pearl Again November 1945. Bremerton December 1945

The ship made it back to Pearl. This time it was to be for just a short stop, refuel and get the ship back to the US.

Higginbotham recalls the end of the Grant's duties and its return<sup>165</sup>:

"In October some of the ships began returning to the States. As they left they took with them those men who had accumulated enough points by length of service, time at sea, etc. to be eligible for release from the service. This process meant that we were continually losing people

<sup>&</sup>lt;sup>165</sup> Higginbotham Diary.

without replacement and it became difficult to keep the ship going with the reduced number of people. In November the snow line on the mountain peak overlooking Ominato crept gradually lower and it began to get very cold in the bay.

In late November our division received orders to return to the States as soon as we had provisioned from a supply ship which was due to arrive in a couple of days. We took an inventory of the food in each of the three ships and found that one or more ships had a surplus of commodities that another ship was short of. By swapping around our limited supplies we were able to get enough food in each ship to get us to Pearl Harbor. Captain Mullaney, who had moved to his assigned flagship, the U.S.S. Isbell (DD-869), got permission for us to sail without waiting for the supply ship.

We sailed for Pearl in a loose line abreast formation on one boiler at 15 knots to conserve fuel so that we would not have to refuel at Midway Island en route. We arrived at Pearl with very little fuel remaining. To the best of my knowledge this was the only time that a destroyer of this class has ever gone from Japan to Pearl Harbor without fueling en route.

After fueling and taking on provisions at Pearl, we sailed for Seattle, Washington. We had a smooth crossing. I'll never forget how wonderful the United States looked as we steamed through the Straits of Juan de Fuca on the 5<sup>th</sup> of December, 1945. It was a beautiful clear day. The snow covered Cascades and Mt. Rainier sparkled in the sunlight."

# Carlson recalls:

"We definitely left November 14, 1945 from Ominato Bay and arrived in Pearl Harbor in the Hawaiian Islands on November 23rd, 1945. Boy, when we did get to Hawaii, the ship was riding high in the water because the fuel was so low. Must have been running on fumes! Everybody's concern now was in getting enough points to get discharged from the service.

We left the Hawaiian Islands Q don't remember the date). It was our last trip on to the U.S.A. and pulled in to Bremerton, Washington. I immediately sent a telegram to my folks that I had a banana split, plenty of milk to drink, strawberry shortcake, and pickled herring! When I finally reached home, they thought I had been drunk, but I wasn't! The Navy sent special train cars transporting anyone who was going East to be discharged from the service.

I finally arrived in Boston and was discharged from the service on December 15, 1945. They gave me enough money to take the train to Worcester. And I did."

## 9.4 Bremerton December 1945

Higginbotham finally recalls:

"After fueling and taking on provisions at Pearl, we sailed for Seattle, Washington. We had a smooth crossing. I'll never forget how wonderful the United States looked as we steamed through the Straits of Juan de Fuca on the 5<sup>th</sup> of December, 1945. It was a beautiful clear day. The snow covered Cascades and Mt. Rainier sparkled in the sunlight."

The ship lost more than half the crew in Bremerton. Men were sent on their way to be discharged. It was based upon a point system, time in service, theatre of action, married, children, age, all added up and if you had the points you got the train ticket home.

You also got, as an enlisted man, the spread winged gold eagle to wear on your uniform saying you had been discharged.

So to Seattle, the train station, tickets in hand, the crewmen set loose are like a swarm heading in all directions except west!

## 9.5 Back Home for Christmas, 1945

I switch now to first person. I remember December 1945, I was just about three, and even at that young age certain memories clearly emerge so at this point I become a participant in this story, albeit a rather young one. It was a cold New York City winter and Christmas was approaching. We really had little money and I had no expectations of Christmas. I did not understand what was to become the true commercialization of Christmas, for we had no television and thus there was no propaganda to influence me to demand things that I probably did not want in the first place. Furthermore, in our part of town there were not many of what one would call "well off" folks. We lived then on Staten Island at my grandparent's home, a modest three story grey painted home located between a similar one and a small grocery/candy store, run by Mrs Welsch. Our neighborhood was about a third Italian, a third black, and a third everything else. Segregation was not something we even understood in New York when I was young. We just assumed that there were lots of different people and somehow we just all got along. Besides the men were all off to war and the women were working and most of us lived in very similar extended family settings. Thus the concept of single parent moms was the rule, not the exception. Grandparents ruled and there was a common peer pressure to be good, after all dad was away and when he came home

It was almost Christmas day and there was a knock at the front door. It was a snowy December day and my grandmother had already put the coal ashes on the sidewalk to make certain that no visitors would slip and fall. I could hear the crunching of the coal cinders as the person had walked up to the front door. Then my mother opened the door and there was my father.

I don't remember the details thereafter but I had this strange feeling that my nice little life would be in for one big change. Who was this guy? I had never seen him before and he was in this dark blue outfit and he was taking over my mother's time. My mother was smiling and hugging him. I thought this was a bit odd and here I was, I was loosing my mother to this stranger.

Now you have to know that my grandmother's best friend from medical school was a world famous child psychiatrist, Louise Despert, who would be at our home for dinner frequently from time to time. I had, via osmosis, picked up all this child psychiatry stuff and thus being a bright 3 year old was performing an instant Freudian analysis on myself. Not a good result. Thus I stood a bit off from this new gentleman caller, so to speak, for was this not my home, was I not its

ruler, did not my mother and my grandmother defer to my every wish, this new interloper would be a clear threat.

So I would bide my time, take it easy so to say, and see the lay of the land. I knew of this war thing, I had my small General MacArthur statue in my upstairs bedroom which I prayed to every night, my grandmother being a non-believer thought this may assuage my mother's recent concession and conversion to Catholicism.

So this man came over and lifted me up. He smelled strange but looked kind. But wait, he had my name, my whole name, how did he get that, was he a relative, did we know each other from somewhere else. It's great being an inquisitive three year old but it can be confusing. Hey, my name is Terry, yes its Terry McGarty, and where did he get my name....wait, my mother just called me Terrence....I must be in trouble...she only did that when I was in trouble...

So we all had lunch, and then he rushed out, to get some Christmas present thing or another. I did not know nor did I understand about this present stuff.

Then about an hour latter he comes back, we had a tree set up in the front living room, lights, tinsel, bulbs, and now a big box that this guy brings in. On the outside it says Lionel, I really didn't read then but I remember the large L type logo. Then, into the box we go, he moving faster than me. Out comes the engine, a Lionel 2020 engine, dark shiny black, with lots of bright steel wheels, it blows smoke, then the tender, with a whistle, then the caboose, a red caboose, and then a tanker, a Sonoco tanker car, then a Babe Ruth box car, then the tracks, and then the transformer. This is mine, I am told, but this guy continues to put it all together and show me how much fun I will have if I ever get to play with this thing.

Well it's getting late and I go up to bed, after all I am still three and have not aged a great deal during this process of the past few hours. But when this guy in the blue outfit comes up he brings a sea bag, and he tells me it is now mine. Thanks, I thought, a big canvas bag, with steel loop holes at the top and lots of strange letters all over it. I must now keep my room "ship shape" he tells me, what ever that is. He places the white canvas bag with these dark letters at the foot of my bed and says goodnight. I know where he is going, back to my trains. Oh well, I thought I might as well sleep. This guy may be around for a while. And what am I to do with this bag, he gets the trains and I get a canvas bag!

The next morning the funny blue outfit was gone, but the shirt was there on the living room sofa. On the front was this big gold eagle, I had never seen anything so cool. On the sleeve was this red set of stripes and what looked like some surveyors thing or other. Interesting I thought. Well where is my train? It was wrapped up! Hey where did it go! It was mine, Mine, Mine!

Well, as many of us know, things get just a bit worse. I soon learned what "ship shape" meant, I now rolled all my underwear and stuffed it in my seabag, I learned never to be "late for my ship", I learned a whole bunch of phrases which would put me in good stead when I went to St. Mary's Grammar School, especially giving me a chance to explain to Sister Louise where I had gotten these salty phrases from. Now having done this book, after sixty some years of wondering, I think I can blame Jerry Marsh. He was the salty guy. If I could only tell Sister

Louise where I got the phrases from, maybe things would be better. And yes, having spent the last sixty years in over twenty five countries running companies, I managed to pass many of these phrases down into twenty five languages, and one wonders what these people did to their children. Jerry Marsh probably never knew how much he influenced all humanity!

Well, sixty plus years latter I still have the Lionel train, it goes up for the grandchildren every Christmas, and now I have many more but the prized possession is the 1945 Lionel 2020 locomotive. And yes indeed, I am the only one allowed to touch that one. The grandchildren can play with the Santa Fe, the Canadian Pacific and the New York Central, but now I alone play with the 2020. Alas, my wife has not allowed me to roll my underwear and put them in my sea bag. You see, my wife's grandfather was a Nova Scotia Sea Captain and she really wanted to get away from all of that stuff. I miss those days.

So in December of 1945, these men returned, the ones who survived, and in the memories and lessons of the returnees, the men who didn't as well. I was fortunate to have some primal memories of that. It was a tough return. They had seen and experienced a great deal. Baldy Carlson had lost a wife just after childbirth and had to leave a newborn in the care of her grandparents. He returned and started over. He had no choice, he was called and he served.

Hunt Hamill returned, and albeit almost called back in Korea, managed to have a successful life and raising a set of wonderful and successful and thoughtful children. Most importantly Hunt wrote about himself and the men of the Grant with an equanimity which does him well. It is a view of humanity and how good it can be in the most trying of times. Hunt and his writings can be an inspiration for many.

And for the men who did not return, their memory still lives on, not just in the list of the Grant dead, but in the memories of their shipmates and in what these men passed down to their children and friends and colleagues. A sense of duty, patriotism, family, and a bond between each other that cannot be broken.

So that Christmas of 1945 was for me the meeting of not just a father, but a man from the Grant, and more importantly the men of the Grant. The telling of this tale is the understanding of so many things which structures one's own life, because being on the Grant one brought the experience back and that training was then handed down. It was handed down to children, grandchildren and great grandchildren, and hopefully further down. There was no list for the men at Salamis. Themistocles was forced to leave Athens and go live in Persia. The men of the Grant are listed and their names are remembered. Unlike the free democratic Greeks at Salamis, the free democratic Americans at Surigao can be remembered and respected, man by man. each and all.

# **10** SOME OF THE OTHER MEN

This chapter provides a list and summary of several of the key men in this tale. Each brings their own experiences to the table. Smoot, for example, is in many ways responsive to the uncertainties he saw in the Battle of Savo in 1942 in the Carolines. Communications was bad at Savo and the clear lines of command had been broken. At Leyte he tried to ensure this did not occur. It is for this reason that in the Leyte action of the Denver that Smoot would be the most insightful. He had laid out a plan and it was not followed by all.

However. the interaction of the personalities of all of these men eventually blend to make the fabric of what the Grant did and how it did what it did. Each of these men had a history, a background, a way of acting, leading, and seeing the world. Smoot is but one. It is equally important to understand Kinkaid and Oldendorf, Halsey and Spruance, and Nimitz and King. All of these men are Academy graduates, all from a time that the Academy was coming from a backwater institution to a key player in shaping US Naval Strategy and geopolitical history.

There are three other classes which we do not look at in detail but who clearly had strong impacts on the men; (i) Government players such as FDR and Harry Hopkins, (ii) Army players such as MacArthur, Marshall, Kenney, and Sutherland (MacArthur's Chief of Staff), and (iii) the Japanese military and naval figures. They all have similar impacts. FDR used his iron fist to get what he wanted when he wanted it.

FDR was a user of people and chose them well. Hopkins was his alter ego, the lower middle class kid from the Midwest who wound up in New York City politics running welfare, and of course MacArthur, a character often too big for life. He had extremely strong positives and extremely string negatives. MacArthur was more than FDR ever could be in many ways, but unlike FDR he was his own downfall, he always assumed he could manage people as he had assumed he had managed FDR, an impression FDR was all to happy to leave him with.

Thus understanding these men a bit better helps in understanding the War from the viewpoint of the Grant.

10.1 Smoot



Figure 109 Captain Roland Smoot DESRON 56

Smoot was an Academy graduate and had been in the battle of Savo in August 1942. He was the captain of the USS Monssen and held the rank of Commander during the Battle of Savo in the Solomon Islands. He had taken charge of the Monssen as a Lt Cmdr in March 1941. The commander of the US Fleet at this battle was Kelly Turner. In this battle the allied forces had 4 cruisers sunk, 2 destroyers damaged, and 1,077 killed as compared to the Japanese with 3 cruisers moderately damaged, and only 58 killed. In the battle Smoot's ship reported enemy ships to his starboard but vital seconds were lost in a confusing TBS exchange between the ships.

Smoot became famous for his shouting across the TBS "Smoot says f\*ck everybody – attack!", and opened fire on enemy ships now clearly visible to starboard. This was Jintsu and her five destroyers. Monssen immediately scored on Amatsukaze with 5-inch gunfire, and launched his torpedoes against Jintsu. The launch was observed, and it enraged Tanaka, as Monssen's lone attack wrecked his fire control solution on the battleships. Monssen was badly hit but still fighting and had been joined by USS Henley. Monssen passed so close to Amatsukaze during their violent close range gun duel that Smoot himself engaged Amatsukaze's bridge staff with his pistol and had the complement returned by the Japanese Captain!

His Taisho pistol misfired, and he was so enraged that he threw the nearest thing to hand – his hat. This actually landed on Monssen (range being about ten feet at the time) and became the hat Smoot wore for the rest of the war. Smoot had actually been trying to ram, but that was almost impossible with both ships well-handled. Amatsukaze's 25mm caused heavy casualties aboard Monssen at this time.

Smoot was made DESRON 56 Commander under Kinkaid and specifically in Oldendorf's attack force.

### 10.2 Oldendorf



Figure 110 Admiral Jesse Oldendorf

Jesse Bartlett "Oley" Oldendorf was born in 1887 and graduated from the Naval Academy in 1909. He was on cruisers and destroyers and first commanded the destroyer USS Decatur. He then commanded a cruiser the USS Houston and was posted to the Naval War College as a member of its staff. He became Rear admiral at the start of the War and was assigned to the Caribbean.

In early 1944 Oldendorf was assigned to the Pacific and his flag ship was the heavy cruiser USS Louisville. It was during this period that the Grant reported to him in the Marians, Palaus and Leyte. Oldendorf was promoted to <u>Vice Admiral</u> in December of 1944 commanded battleships in the landings at <u>Lingayen</u> Oldendorf was wounded at Okinawa while on the <u>Pennsylvania (BB-38)</u>.

10.3 Kinkaid



Figure 111 Admiral Kinkaid

Thomas Kinkaid was born in 1888 in Hanover, NH., and that was a mere accident of fate since his family was from Virginia and he and his family retained the slight Virginia lilt all their lives. Kinkaid had graduated from the <u>United States Naval Academy</u> in June <u>1908</u>. Kinkaid was assigned to the <u>battleships *Nebraska*</u> and *Minnesota*. In <u>1913</u>, he began instruction in ordnance engineering and served in that field for the next few years.

Kinkaid was Assistant Chief of Staff to the Commander U.S. Naval Detachment in <u>Turkish</u> Waters in <u>1922–24</u>. Kinkaid's first command was the <u>destroyer</u> USS <u>Isherwood</u>. Kinkaid also served as Fleet Gunnery Officer and Aide to the Commander in Chief, <u>U.S. Fleet</u>.

In 1932 Kinkaid replaced a classmate from the Academy as the ExO of the Colorado then under the command of Captain Wygant. Kinkaid knew that he needed battleship fleet experience to get ahead and this would provide him such.<sup>166</sup> As the XO of the Colorado, Kinkaid from the class 0f 1908 was about four years younger than his classmates, and thus was very young as the XO of a battleship but apparently he was well regarded by his reporting officers. In 1934 Kinkaid went to the Bureau of Navigation, the group in the Navy responsible for assignments. Kinkaid was detailer, sending Lt Commanders and Commanders to their new billets. This gave his great understanding of the officer corps in that rank.

In January 1935 the Class of 1908 came up for Captain. This was 27 years after graduation, and an officer typically had three chances and then had to retire. Kelly Turner in his class was of senior rank. Kinkaid was much lower. Kinkaid was passed over the first time but made it the second in the following year, 1936. He then went on to command the Indianapolis.

In the period just before Pearl Harbor, Kinkaid commanded a destroyer <u>squadron</u>. He was made a Rear Admiral in <u>1942</u> and commanded a <u>Pacific Fleet</u> cruiser <u>division</u> in the <u>Pacific Ocean</u> <u>Areas</u> (POA). His first battle in the War was at Bougainville<sup>167</sup>. During the Battle of Coral Sea in May 1942 he was the Flag of Carrier Task Group and was on the Minneapolis. However during this Battle Halsey felt his performance totally unsatisfactory and relieved Kinkaid of command. In Midway in June 1942 he again was Flag on CTG Cruiser Group. Kinkaid was placed in charge of the North Pacific Force in January <u>1943</u> and took it through the operations that regained control of the <u>Aleutian Islands</u>.

In November 1943, Kinkaid was promoted to <u>Vice Admiral</u> and Commander Allied Naval Forces SWPA, and Commander of the 7th Fleet, directing U.S. and <u>Royal Australian Navy</u> forces supporting the <u>New Guinea campaign</u>, and at the massive <u>Battle of Leyte Gulf</u> in <u>1944</u> reporting to MacArthur. This was a promotion to Vice Admiral and required him to report to both Admiral King and General MacArthur<sup>168</sup>. MacArthur had his prior Naval commander removed. MacArthur wanted control and this was difficult. The choice of Kinkaid was made based primarily upon several factors in MacArthur's mind: (i) Kinkaid managed to get along well, (ii) Kinkaid had extensive Flag Battle experience<sup>169</sup>, (iii) Kinkaid and Halsey had a near hatred relationship between each other and this assured no backchannel conversation, (iv) Kinkaid wanted and needed revitalization and success to prove Halsey wrong and this would be a strong motivator for Kinkaid in MacArthur's mind.

<sup>&</sup>lt;sup>166</sup> See Wheeler, Kinkaid, pp. 71-73.

<sup>&</sup>lt;sup>167</sup> See Wheeler, Kinkaid, p. 167.

<sup>&</sup>lt;sup>168</sup> See Wheeler, Kinkaid, p. 346.

<sup>&</sup>lt;sup>169</sup> See Wheeler, Kinkaid, p. 341.

Halsey and Kinkaid had a bad relationship. Halsey still harbored concerns as regards to Kinkaid. Thomas, in Sea of Thunder, recounts the hostility between Kinkaid and Halsey. Halsey had relieved Kinkaid after the poor performance of the Battle of Santa Cruz Island off Guadalcanal in October 1942<sup>170</sup>. Thomas states "Kinkaid was bitter about getting shoved aside, especially when Halsey refused to see him afterward." Part of the selection of Kinkaid as the head of the 7<sup>th</sup> Fleet was the hostility between Halsey and Kinkaid. MacArthur found this useful since it assured that two "old Navy buddies" would not talk behind the General's back.

His battle control was over all actions in the Philippines and the Borneo campaign (1945).

Kinkaid's brother in law was Admiral Kimmel, the Admiral in charge of Pearl Harbor and who was Court Marshaled for dereliction of duty at that time<sup>171</sup>. Kinkaid's father had graduated from the Naval Academy in 1880 but due to the low need for Naval Officers at the time Kinkaid's father accepted a teaching position at the New Hampshire College of Agricultural and Mechanical Arts in Hanover, NH, also home at that time of Dartmouth College. In reality the family were from the south and had just managed to move north due to the lack of opportunity in the Navy at the time. In 1904 the largest class was admitted to the Academy, a total of 283.

Kinkaid at 16 at the time of admission was one of the youngest in his class. The Academy then was a teaching system by rote memorization. In many ways, learning anything from or at the Academy was never achieved. It was a place for training not educating. Kinkaid's academic performance, he was well in the lower half, was very poor at the Academy and he was concerned that this would hinder him in his career. Kinkaid spent time in studying optics as applied to ordnance at Bausch and Lomb. He became quite adept at this area, and gunnery was always one of his fortes.

Kinkaid as head of the 7<sup>th</sup> Fleet under MacArthur had also found himself in the political war between Army and Navy. Wheeler quote Capt Tarbuck (Navy) assigned to MacArthur's staff as follows<sup>172</sup>;

"The Army staff was very suspicious of the Navy. ...a press man told me.... "The war between the Yanks and Japs is only exceeded by the war between the Army and the Navy" I would have no part of it. Biggest Army agitator was Captain Cruzen on Kinkaid's staff and the biggest anti-Navy agitator was General Kenney (headed air forces). The arrival of Kinkaid started a new policy of co-existence, but he soon fell under the influence of the system..."

<sup>&</sup>lt;sup>170</sup> Thomas, Sea of Thunder, p. 214.

<sup>&</sup>lt;sup>171</sup> See Wheeler, Kinkaid. The details on Kinkaid's life are well described in this reference.

<sup>&</sup>lt;sup>172</sup> See Wheeler, Kinkaid, p. 362.

### 10.4 Halsey



Figure 112 Admiral Halsey

William Halsey, Jr. was born in 1882 Elizabeth, New Jersey, the son of Captain William F. Halsey, Sr. USN. Elizabeth was a port city just across from Staten Island and down the road from the Bayonne Navy Yard, one of the larger facilities in the Navy. He attended the Pingry School as a boy. Pingry was an upscale private school in New Jersey and had a long reputation as one of the better day and room prep schools in the State.

He had initial difficulty gaining admission to the Naval Academy at first even after personally writing to the President. He started by attending medical school at the University of Virginia but was less than a sterling student. In September 1900 he entered the Academy after his mother used some political connections to get him in and after he passed the entrance exam. He eventually secured a position at the Academy and entered in He graduated in 1904 from the United States Naval Academy and in a class of sixty two graduates he was about two thirds from the top academically.

Halsey's first assignment was on the Battleship Missouri, the first version of such. Potter recounts an event on the Missouri when Halsey was on the bridge on 13 May when an explosion in a gun turret incinerated a man in front of him. This left Halsey with a fear of the 13<sup>th</sup> of every month henceforth<sup>173</sup>. Halsey developed many of these types of quirks and his bombast was in many was attempts to smoothes these over.

In 1913 Halsey received his first command of a destroyer, the USS Jarvis, which was an old coal burning ship. He spent a considerable time at sea and developed expertise in torpedoes. In the first World War he commanded the USS Shaw and was awarded a Navy Cross for his actions.

Between the Wars Halsey spent time in Germany and at sea. In the mid 1930s he changed from Destroyers to Air Craft Carriers, a change which may have been a bit risky at the time but for Halsey represented the future. Halsey had understood the destroyer as a weapon of war and saw what it could do and what its limitations were and how they could be minimized. He also saw the carrier as another new weapon of war, far beyond what was till seen in the old battleships. He

<sup>&</sup>lt;sup>173</sup> Potter, Halsey, p. 83.

also learned to fly and attended and graduated from the Naval Flight Training facility in Pensacola, Florida when he was a full Captain. Upon completion of his training and award of his wings he took command of the carrier Saratoga.

Halsey was at sea in his flagship, USS Enterprise, during the Japanese attack on Pearl Harbor on December 7, 1941 and due to weather did not arrive until after the attack. Had he not had the bad weather he would have arrived on Saturday the  $6^{th}$  of December, the day before.

Halsey re-provisioned, for fortunately the Japs had not hit the fuel depot, and then set out to sea again. He participated in Doolittle Raid on Japan off his carriers. Halsey took command in the South Pacific Area in what was called the 3<sup>rd</sup> Fleet when he was in charge in mid-October 1942, at a critical stage of the Guadalcanal Campaign.

After Guadalcanal was secured in February 1943, Admiral Halsey's forces spent the rest of the year battling up the Solomon Islands Chain to Bougainville, then isolated the Japanese fortress at Rabaul by capturing positions in the Bismarck Archipelago.

Admiral Halsey left the South Pacific in May 1944, as the war surged toward the Philippines and Japan. From September 1944 to January 1945, he led the Third Fleet during campaigns to take the Palaus, Leyte and Luzon, and on many raids on Japanese bases.

At the Battle of Leyte Gulf, he took the 3<sup>rd</sup> Fleet in pursuit of a small decoy force of Japanese carriers, leaving the mass of the Japanese fleet coming from the north at San Bernadino Strait to lead to the battle at Samar. Halsey believed he was following his orders of seeking out the enemy.

Letter that winter in 1944 Halsey ran afoul a second time, again due to his stubbornness and less than sterling crew. This event was "Halsey's Typhoon" in mid December. While conducting operations off the Philippines, the force remained on station rather than avoiding a major storm that sank three destroyers and inflicted damage on many other ships. Some 800 men were lost in addition to 146 aircraft. The tale of this event has been told several times but the key fact was that the weather men on Halsey's Task Force just plain messed up.

In the seaman's classic work, Bowditch's Navigation, a book used by sailors for now almost 300 years and by then for 250, it tells all the signs of typhoons and when and what to do. Halsey's men did not follow any of the age old advice and got the fleet in a mess. Also, Halsey, surprisingly a destroyer man in the past, seems not to have appreciated the extent of the typhoon on the smaller sips, a destroyer in a Sea Sate 5 will capsize just due to the sheer movement of its center of gravity, compounded by the fact that they were also so low on fuel and riding high. Again Halsey received a slap on the wrist and many men were lost.

In January 1945, Halsey was relieved by Admiral Spruance when the command of the fleet change from 3<sup>rd</sup> to 5<sup>th</sup> Fleet. Halsey resumed command of the 3<sup>rd</sup> Fleet from late May 1945 until the end of the war; he was present when Japan formally surrendered on the deck of his flagship, USS Missouri, on September 2, 1945. Halsey was promoted to Fleet Admiral, five stars just at the end of the War.

## 10.5 Nimitz



Figure 113 Admiral Chester Nimitz

Chester Nimitz was born on 24 February 1885, in Fredericksburg, Texas. In many ways Nimitz combines his Texas roots and his German ancestry. The family arrived in the United States as von Nimitz, in a sense German royalty, with a long history in Germany<sup>174</sup>. Texas became the home of his grandfather and father and in many ways it was this part of Texas which made Nimitz in his early years. Fredericksburg is directly west of Austin, the capitol. It is Texas flat land and it is deep in the heart of Texas. It makes for big men with big ambitions. His German side made for the strategic thinker and an ability to keep his mouth shut, unlike Halsey. His grandfather had been a sea captain so this was at least a window on the sea. In this part of Texas one is quite a way from any port.

built by his grandfather, Charles Nimitz, a retired sea captain. Nimitz tried for an appointment to West Point. With no such appointment available at the time Nimitz took a competitive examination for the Academy and was selected and appointed from the Twelfth Congressional District of Texas in 1901.

He left high school to enter the Naval Academy Class of 1907, with a class of 131 cadets. At the Academy Nimitz was an excellent student, especially in mathematics and graduated with distinction -- seventh in a class of 114. He was an athlete and stroked the crew in his first class year.

Nimitz graduated in January 1907 and was assigned to the USS Panay in Cavite the Philippines. His first sea duty exposure was fortuitously the Pacific and the Philippines specifically. The driving factor was also fear of war with Japan. This was the ongoing concern over War Plan Orange. Nimitz also trained in diesel engines extensively and had hands on experiences and exposure to the German technologies. His knowledge of the diesel was probably the best in the Navy in the pre World War I period.

It was in 1908 as an Ensign that Nimitz, while at the helm of the USS Decatur a destroyers in the Philipines, he managed to ground the ship. This is not the step any Navy officer would ever want to add to his record. Admiral King would latter disallow many a Captain to get to Flag because

<sup>&</sup>lt;sup>174</sup> Potter, Nimitz, p. 16-30. This is the definitive reference on Nimitz.

of a much lesser infringement. Nimitz wrote the event up and he was sent to a court martial. He was reprimanded and it was put in his permanent record. This would be a seminal event in his dealing with people latter in life. He was much more lenient than King could ever be. He would stop and ask why, try to determine underlying reasons.

Nimitz also spent a considerable time in submarines and was involved in several heroic efforts in saving men in times of distress. He had one year in command of the Atlantic Submarine Flotilla before coming ashore in 1913 for duty in connection with building the diesel engines for the tanker *USS Maumee* at Groton, Conn.

Nimitz spent time in Germany and although German by ancestry was clearly an American. The German Naval officers were generally officious and arrogant but this gave Nimitz an opportunity to see their technology and better understand the culture. He was always looking and learning.

During the first World War he served with Rear Admiral Robison in the submarine command. They developed and improved US submarines but there was to be no action since the War was so far along at that point.

In 1922 Nimitz was sent to the Naval War College in Newport. This would be a seminal event, it allowed Nimitz to blossom as a strategist. Nimitz always said the time at Newport was the key element in planning for his command in the Pacific.<sup>175</sup> Nimitz's thesis was on the Battle of Jutland in 1916. Jutland was a battle with a great number of ships and due to the lack of command and control, an idea not yet in evidence, there was near chaos in moving this fleet about to fight the enemy.

Radio had just been invented and was in limited use as more code in the fleet. There was no CIC at this time and the only issue was how does one deal with a large sea battle and coordinate. It was like having 250 hippos in a ballet trying to imitate swans. This battle demonstrated the less than useful capabilities of the battleship. This period with the influence of Rear Admiral Sims led Nimitz to see the limits on battleships and to try to better understand the strategic nature of the carrier as an offensive weapon.

The question left in Nimitz' mind at that time was what was the best collection of naval assets; carriers and destroyers, and how to coordinate their movements. He had another twenty years to ponder this issue.

His next major assignment was as a Commander in charge of the newly formed Naval Reserve Officers Training Corps, NROTC, and he was to open and operate the first as UC Berkeley<sup>176</sup>. During this period Nimitz was at one of the best educational establishments in the United States and at the same time in close proximity with the faculty. Professors from many areas and he freely communicated with them. It was this additional cross fertilization, this opportunity to be receptive to new ideas that further expanded the horizons on Nimitz.

<sup>&</sup>lt;sup>175</sup> See Potter, Nimitz, p. 136.

<sup>&</sup>lt;sup>176</sup> Potter, Nimitz, p. 142-146.

In 1933 he was obtained his first large ship command, the heavy cruiser *USS Augusta* which served mostly as flagship of the Asiatic Fleet. In 1935 he served three years as Assistant Chief of the Bureau of Navigation. His next sea command was in flag rank as Commander Cruiser Division Two and then as Commander Battle Division

In 1939 Nimitz as a Rear Admiral was made head of the Bureau of navigation, a misnomer since now it is called the Bureau of Personnel. The Bureau of Navigation was the Bureau which assigned and reassigned officers and men in the Navy. The Navy was an always moving checkers board. Men spent a year here and a year there. They were always seeking better positions, sea commands, training, staff exposure, and it was the Bureau which managed this effort. The Bureau had to understand all the men in the Navy and all of the needs of the Navy and best match these elements.

In 1939 he was appointed as Chief of the Bureau of Navigation and was there for four years. In his Bureau was a Commander Bledsoe who would in years to come command the USS Denver in the Battle of Surigao Strait. Bledsoe was at that time in charge of the Enlisted Men's Detail Section, assignments.

In December 1941 after the Pearl Harbor attack, changes had to be made. As with King, Kimmel's at Pearl had to be replaced. Harry Hopkins again assists FDR to select a Rear Admiral to take command of all of the Pacific, and make Nimitz a four star full Admiral. Nimitz was bumped over many of his superiors for the position. One may ask why was a "paper pusher" in Washington, moved over the heads of men like Halsey, a Vice Admiral and experienced fleet commander. The reason why was simple. FDR personally selected his Navy commanders. FDR as a former Navy Secretary thought he knew everything that was necessary to "run his Navy" and did so down to the selection of commanders, Kimmel included. Now the person bringing the selection data to the White House and interfacing with Hopkins was Nimitz since Nimitz was in Charge of the Bureau. This three year relationship between Nimitz, Hopkins and FDR led to this selection. In a sense a very wise choice and a counter balance to King.

#### 10.6 Spruance



Figure 114 Admiral Raymond Spruance

Raymond Spruance was born on 3 July 1886 in Baltimore, MD. His family moved to Indianapolis, Indiana, when he was an infant. His mother frequently left in the care of his

grandparents, the Hiss family side, and the Hiss family, living in South Orange,, NJ, lived well off the family fortune. When the Hiss family went bankrupt, this event apparently traumatized Spruance. All the Hiss family accoutrements vanished and this sense of total loss of security was a shock. Spruance returned to Indianapolis and graduated at sixteen from High School in 1902. He then returned to live in South Orange, During that time he attended Stevens Institute of Technology, a local engineering school and trade school.

In 1903 he decided to try to get into the Naval Academy. He took the entrance test in New Jersey and scored the highest and was asked to attend as a New Jersey Candidate. At the same time his mother back in Indianapolis got him a political appointment via the Indiana Representative. Following his mother's demand he took the one from Indiana<sup>177</sup>.

Spruance entered the U.S. Naval Academy in July 1903 a day before his seventeenth birthday and he graduated in the class of 1907. Buell notes that Spruance was not a reader, writer, speaker or any of the things that make one believe a person is "intellectual"<sup>178</sup>. However Buell argues that Spruance was c "classic Intellectual" in that he was rational and used his intellect rather than his emotions. In a sense he was the antithesis of Halsey, his life long friend. During World War I Spruance was assigned to the Pennsylvania and saw not war duty. In the 20s he looked at the "coming of peace" and would question his Navy career. He decided to stay.

As Buell states, for a young graduate of the Academy seeking promotion as an officer<sup>179</sup>:

"An officer aspiring to command seeks three kinds of experience. First he must learn how to lead men. Second he must become a competent mariner, primarily through standing innumerable watches at sea an officer of the deck (OOD). Third he must understand the internal organization and operations of the ship as well as its design, its construction, equipment and machinery."

In 1926 Spruance was assigned to the War College for study. This was the Mahan establishment which was to teach officers strategy. A key element in this training was the use of war games. A key element of the game was the "Estimate of the Situation". This consisted of four parts; (i) derive the mission, (ii) decide what must be done, (iii) develop the plan, (iv) prepare the written order<sup>180</sup>. Namely figure out what you are trying to achieve, then state what you must do to achieve it, then figure out what things have to settled to do what you want to do to achieve the mission, and finally "write" the order to do just all of that.

In the Navy orders must be followed and confusing orders result in confusing actions. It is clear that all one has to do is look at the confusion over the orders given to Halsey at Leyte. Did Halsey have to pursue the enemy or protect the fleet. For Spruance protect the fleet is what he

<sup>&</sup>lt;sup>177</sup> See Buell, Spruance, pp. 5-12.

<sup>&</sup>lt;sup>178</sup> Buell, Spruance, p 36.

<sup>&</sup>lt;sup>179</sup> Buell, Spruance, p. 21.

<sup>&</sup>lt;sup>180</sup> See Buell, Spruance, p. 51.

did in the Battle of the Philippine Sea. Attack the enemy was Halsey's choice. The writer and the reader of the orders must be in synch.

Spruance has said<sup>181</sup>:

"I believe that making war is a game the requires cold and careful calculation...each operation is different and has to be analyzed and studied in order to prepare the suitable plans for it..."

On December 7, 1941 Spruance was on board the Northhampton, with Task Force 8. He was called by the staff watch with a message from CINCPAC, "Air raid on Pearl Harbor. This is no drill." Spruance replied<sup>182</sup>:

"Thank you, you know what to do."

This is classic Spruance, short, to the point, no emotion, no surprise, then back to doing whatever he was doing beforehand. "Prior planning prevents poor performance".

Spruance achieve world recognition for his success when he commanded Task Force 16, with two aircraft carriers, during the Battle of Midway in early June of 1944. Spruance made calculated decisions during the battle which led to the first major victory for the US in the War. Spruance took a gigantic risk, but he calculated and played the game as he would have if he were back at Newport, except now he was as much a real target as anyone else.

After the Midway battle, he became Chief of Staff to the Commander in Chief, Pacific Fleet (CINCPAC) reporting to Nimitz and later was Deputy Commander in Chief. In mid-1943, Spruance was given command of the Central Pacific Force, which became the United States 5th Fleet in April 1944. It was the same fleet that Halsey had, when Halsey was there it was the 3<sup>rd</sup> Fleet and when Spruance the 5<sup>th</sup> Fleet. It did manage to confuse the Japanese.

From 1943 through 1945, with his flagship USS *Indianapolis* he captured the Gilbert Islands, Marshall Islands, Marianas, Iwo Jima, and Okinawa. He also defeated the Japanese fleet in the Battle of the Philippine Sea in June 1944 which was at the same time as the capture of the Marianas; Saipan, Tinian and Guam.

<sup>&</sup>lt;sup>181</sup> Buell, Spruance, p. 53.

<sup>&</sup>lt;sup>182</sup> Buell, Spruance, p. 96.

### 10.7 Turner



Figure 115 Admiral Kelly Turner

Kelly Turner was born in 1885 and graduated from the Naval Academy in 1908. Turner was born in Portland, Oregon. Appointed to the U.S. Naval Academy from California in 1904. In 1913, Lieutenant (Junior Grade) Turner briefly held command of the destroyer *Stewart*. After receiving instruction in ordnance engineering and service on board the gunboat *Marietta*, he was assigned to the battleships *Pennsylvania*, *Michigan* and *Mississippi* during 1916-19.

From 1919 to 1922, Lieutenant Commander Turner was an Ordnance Officer at the Naval Gun Factory in Washington, D.C. He then was Gunnery Officer of the battleship *California*, Fleet Gunnery Officer on the Staff of Commander Scouting Fleet and Commanding Officer of the destroyer USS Mervine (DD-322). Following promotion to the rank of Commander in 1925, Turner served with the Bureau of Ordnance at the Navy Department.

In 1927, he received flight training at Pensacola, Florida, and a year later became Commanding Officer of the seaplane tender USS Jason (AC-12) and Commander Aircraft Squadrons, Asiatic Fleet. He had further aviation-related assignments into the 1930s and was Executive Officer of the aircraft carrier USS Saratoga (CV-3) in 1933-34. Captain Turner attended the Naval War College and served on that institution's staff in 1935-38. He next commanded the heavy cruiser USS Astoria (CA-34) and took her on a diplomatic mission to Japan in 1939.

Buell relates the relationship between Spruance and Turner<sup>183</sup>:

"In the summer of 1937 Spruance fleeted up to Head of the Operations Department, but he was overshadowed by his subordinate Head of Strategy, Captain ...Turner, a friend of many years. Turner was aggressive, decisive, competitive, combative naval officer who mentally overpowered the students. His fiery debates with another...Captain...Theobald became legendary.

Turner was the greatest teacher of naval strategy since Mahan..."

Captain Turner was Director of the War Plans Division in Washington, D.C., in 1940-41 and achieved the rank of Rear Admiral late in the latter year. He was Assistant Chief of Staff to the

<sup>&</sup>lt;sup>183</sup> Buell, Spruance, p. 72.

Commander in Chief, United States Fleet from December 1941 until June 1942 and was then sent to the Pacific war zone to take command of the Amphibious Force, South Pacific Force.

During the War, Turner developed a very serious drinking problem<sup>184</sup>. He was an alcoholic. He had a tremendous capacity for alcohol. His drinking was well known and even Nimitz, one his strongest admirers was at times challenged. Spruance would try and protect Turner from himself during these times. Apparently Turner did not have any degradation in his performance as a result of his extreme drinking. One case is that at the flag raising at Tinian, when the Grant was there, Turner was totally inebriated. Nimitz was there for the ceremony and Spruance had to sober Turner up so that he could stand for the few minutes the ceremony would take. Spruance would always keep Turner in a safe harbor but could never stop the drinking.

Over the next three years, while holding a variety of senior Pacific Fleet amphibious force commands as both a Rear Admiral and Vice Admiral, he planned and executed the conquest of enemy positions in the south, central and western Pacific, contributing greatly to ultimate victory in the World's greatest naval war. In the rank of Admiral, he would have commanded the amphibious component of the invasion of Japan, had that nation not capitulated in mid-1945





Figure 116 Admiral King

Ernest King was born in Lorain, Ohio, on November 23, 1878. He attended the small local high school and in his senior year traveled to Mansfield Ohio to see his Congressman a man named Kerr<sup>185</sup>. He competed against thirty others for the position to the Academy and won it. King had grown up with his father in Lorraine, his mother had gotten "ill" and left for Cleveland. His father was a rough man but the two seemed to co-exist well.

His start at the Academy was in August 1897. In his plebe year there were 87 classmates. The entire student body was about 290 men. He weighed 135 when he entered but by the time he graduated he was 165 pounds and six feet by the time he graduated in 1901. He was

<sup>&</sup>lt;sup>184</sup> Buell, Spruance, p. 255.

<sup>&</sup>lt;sup>185</sup> Buell, King, p. 7. This is the definitive biography on King.

commissioned as a "passed midshipman" and spent the next two years at sea. He then took his exam and was made Ensign in 1903.

He served on the USS Eagle surveying Cienfriegas, Cuba, on USS Cincinnati, a cruiser, on USS Illinois, , and on the USS Alabama, flagship of the second Division of the Atlantic Fleet.

In 1906 when he went to the Naval Academy as an instructor in Ordnance and Gunnery for two years, followed by one year on the Executive Staff. It was at this time he had the conflict with his superior, Commander Albert W. Grant. This seems to be a trait in King, if questioned he attacks the questioner. He did so aggressively and brutally that people soon learned to back off, even superiors, despites attempts to set him otherwise. King was in many ways a bully.

There followed another sea cruise of three years beginning as Aide on the Staff of Commander Battleship Division Two, Atlantic Fleet in *USS Minnesota*, one year as Engineer Officer of *USS New Hampshire* and one year on the Staff of the Commander in Chief Atlantic Fleet in *USS Connecticut*.

His next shore cruise started in 1912 in command of the Engineering Experimental Station at Annapolis. After two years, in 1914, he went to sea again, this time in destroyers in command of *USS Cassin*, then as aide to Commander Torpedo Flotilla Atlantic Fleet, Commander Sixth Division of the Flotilla. In 1916 he went to the staff of Admiral H. T. Mayo on which he served during WWI while the Admiral was Commander in Chief, Atlantic Fleet.

In 1919, Admiral King, then a Captain, became head of the Postgraduate School at the Naval Academy. Following that tour of duty, he commanded *USS Bridge* for a short period. In July 1922, he commenced a series of assignments which placed him in intimate contact with submarine operations when he was assigned to duty on the staff of Commander Submarine Flotillas, Atlantic Fleet, and as Commander Submarine Division Eleven. In 1923 he took command of the Submarine Base at New London with additional duty as Naval Inspector of Ordnance in Charge of the Mine Depot there. It was during this period in September 1925 that he was in charge of the salvage of *USS S-51* which was sunk off Block Island.

After duty on destroyers and after making Captain King goes to Pensacola to train for aircraft. He obtains his gold wings in 1927. This was a short and abrupt training. King was not really that good of a pilot and he was quickly awarded his wings and sent back to sea command.<sup>186</sup> King had always been "playing" the system to get ahead. He always wanted to find the next best billet, and even when offered good positions he waited and haggled to try to obtain even better ones.

King had married and his marriage was less than a success. His wife was from Baltimore and a fairly well off family. They married in 1905. King had a reasonable early marriage but by the time he was in command twenty years latter it was a best a formality in his life. He was a womanizer and heavy drinker as well.

<sup>&</sup>lt;sup>186</sup> Buell, King, p. 67.

Upon completion he returned to his command of the *Wright*, and had a short cruise as Commander Aircraft Squadrons, Scouting Fleet, until 1928, when he went ashore as Assistant Chief of the Bureau of Aeronautics. In 1929 he assumed command of the Naval Air Station, Norfolk, Virginia.

Like Halsey who commanded the Saratoga after his flight training, King before him in 1930 took command of *USS Lexington* for a two year cruise in that ship.

King also spent a year in the Naval War College and in 1933 as a Rear Admiral he became the Chief of the Bureau of Aeronautics until 1936. This was another one of those agonizing career decisions for King. In February 1941, he was made Admiral and appointed Commander in Chief, Atlantic Fleet. After Pearl Harbor at the recommendation of Harry Hopkins on 30 December 1941 King became Commander-in-Chief, U. S. Fleet.

After the removal of Admiral Stark and after a great deal of politicking by King behind the scenes, in March 1942, the FDR combined the office of Commander in Chief and the Chief of Naval Operations, King assumed those combined duties on 18 March, when he relieved Admiral Stark as Chief of Naval Operations, the first and only officer to hold such an assignment. On 17 December 1944 he was advanced to the newly created rank of Fleet Admiral. King is also know for introducing a new Navy uniform, a steel grey color which only he and his staff wore. Nimitz and all of the officers in the Pacific kept the khaki uniforms. King, in a classic King move, wanted to leave a lasting impression on the Navy. He did not accomplish that with his uniform.

King was ruthless with men. He did not like the number of medals they were getting and revamped the system after the beginning of the War. In fact it was only after World War I that Navy officers even wore medals. The tradition was in contrast to the British who had chests of medals, the US Navy eschewed such as bad taste. ironically the old European custom has returned.

## 10.9 Summary

Wars are fought by mean, and now again women. Salamis had a woman admiral of the Persian fleet. She was ruthless in her attack of the Greeks and actually managed to sink one of the Persian triremes in pursuit of Greek vessels. But in World War II the main players at sea were men. The men each have a history, a past, a background, and it is this collections of experiences combined with their own nature which makes them do what they do. Above all of these men is FDR, a towering figure who is tweaking all of the strings. And in many ways behind FDR was Harry Hopkins, a person who recommended King and then Nimitz, ad person who set up the welfare state for FDR and then due to failing health live in the White House and in a Rasputin like manner managed many of the personnel affairs. He was highly regarded by Churchill publicly, but Churchill may very well have said good things in abject terror of what Hopkins could do. Hopkins was the Stalin communicator and may very well have single handedly created what became the balkanization of Europe as FDR fell into a final terminal spiral due to his rapidly failing heart.

Name	Rank/Mission	Birth		Academy Class
King	Admiral, Admiral	1878	1901	-
	of the Fleet			
Nimitz	Admiral, Admiral	1885	1905	
	of the Fleet			
Halsey	Admiral, Admiral	1882	1904	
	of the Fleet			
Spruance	Admiral	1886	1907	
Turner, Kelly	Admiral	1885	1908	
Kinkaid	Vice Admiral	1888	1908	
	(Admiral)			
Oldendorf, Jesse	Captain (Rear	1887	1909	
	Admiral)			
Smoot	Captain			
Schaeffer <sup>187</sup> ,	Commodore			
Valentine	(Rear Admiral)			
Bledsoe	Captain (Rear			
	Admiral)			
Nisewaner	Commander	1910	1932	
	(Captain)			
Higginbotham	Commander	1915	1935	
	(Captain)			

The relationship between all of these men is also enlightening. The following figure depicts this.

<sup>&</sup>lt;sup>187</sup> Wheeler, Kinkaid, p. 402, Commodore Schaeffer was Kinkaid's Chief of Staff, and he was advising Kinkaid as to how to deploy his forces with the attaching from San Bernadino strait to the north. He had Oldendorf's Support Group repositions to assist, but by the time Oldendorf could respond Kurita the Japanese commander had retreated. Schaeffer become Rear Admiral.



Figure 117 Relationships between Key Players

At the top of this pyramid was FDR and his confidant Hopkins. This was a relationship which for FDR as he was ailing, and he was so since 1940, was critical. Then, despite there being Secretaries of the Navy and of War, the directs reports were King and Marshall. These two men could not have been any different. King was respectful of only FDR. Given his past one would even wonder why that was so, but he was extremely deferential. Hopkins had selected well.

Then there was Marshall, and there will always be the question of why he was undisturbed on 7 December 1941 when Pearl Harbor happened and he was riding his horse and took so cavalier an attitude of warning General Short and more importantly making sure MacArthur did what he was to do, and never did. Then there is the wizard of oz, General MacArthur. The grand master of manipulations who failed to send General Brereton's B-17s to attack the Japanese and left them unprotected for hours until they were destroyed by a known oncoming Japanese attack. Why, after Brereton pleading for their release, had General Sutherland allowed MacArthur to remain silent in his grand suite in Manila while the Philippines fell. It was as if Nero played while Rome burned. And then, FDR appoints MacArthur to head the South Pacific combined allies forces.

The jewel is Nimitz, that strategic thinker, loyal backer of men, and buffer between King and the men taking action. Halsey was a classic leader of men, for the better or for the worse. He selected Spruance, his alter ego, and the two of them took action, some good some not so good,

but in the end it was victory. Halsey may have erred in Leyte, but looking back it was an error of sending a command, and in the end it was Nimitz's error. The directive in orders, "avoid ambiguity of expectations".

Then there is Kinkaid, a good Admiral who has mixed memories. He is a bit of an enigma. Not very bright, not a Nimitz, but then again leaders generally are not overly intelligent, if they are they loose their followers. Kinkaid seems to be a political player, a man who can balance many egos. His being placed as head of the 7<sup>th</sup> Fleet under MacArthur, while also reporting to Nimitz say as a great deal about Kinkaid. Nimitz as Head of the Navigation Bureau knew of Kinkaid and knew his traits. He was a political survivor, not a leader, not a Halsey, not a thinker like Spruance, but a person who could handle MacArthur, and play the game. The relationship between Haley and Kinkaid after the war was at best strained. The comments by Kinkaid to Mason tell more about character than anything else.

Spruance was the Sphinx. He was quiet, a leader and strategist. He when heading the 5<sup>th</sup> fleet did what Halsey would not, and both were right and both erred. However Spruance provided strategy. Spruance did what Halsey did not in the Battle of the Philippine Sea, stayed and kept the troops free from harm. But then again those were his orders.

Oldendorf was a tactical wizard. He took his forces, time after time, and under assignment to Kinkaid, and delivered. If Commodore Schaeffer and Kinkaid had not vacillated on the morning of the 25<sup>th</sup>, Oldendorf cold have easily swung his fleet around and headed north to protect against San Bernadino. Perhaps one will never know how the outcome could have changed. Instead Oldendorf stayed behind.

Smoot is a wonder, he is an "Act don't think!" person. He also has that salty tongue which is a sign of a good leader in a time of crisis. And then there is Nisewaner and Higginbotham, the men at the helm, and this was their story.

### **11 CONCLUSIONS**

At the end of the first decade of the 21<sup>st</sup> Century, the United States Navy is essentially composed of Carriers and Destroyers. There are no Cruisers, Light Cruisers, Battleships or frankly anything in between. There are no Destroyer Escorts even, and not even a PT boat. The Navy has a fleet that simply is what worked in World War II the best, plus submarines, now used as strategic weapons and less as tactical weapons. The Carriers are for aircraft only and the Destroyers do almost all other tasks. The Destroyer has evolved into the tactical all purpose fighting machine. However one may find it strange as compared to the Fletchers in the Grant's time it functionally works fairly much the same. The CIC has expanded to do what it was on its way to do and the ship has fewer guns and more missiles.

There are several observations that the Grant can present. Some are positive some are uncomfortable. On the positive side the men on the Grant moved on to their lives and their families. The made the world a better place. The reunions became a vehicle for the bonding which was difficult while in the Navy. The Navy kept moving men and when not moving between ships moving on board the ship, there just was no idle time. These men then brought their lessons to their children and it spreads down from there.

# 11.1 Last Great Battle of First Great Battle?

As one looks back over sixty years on the battle of Surigao Strait, and especially as one looks at the new strategies of war such as the proposed concept of swarming, one can see that the battle Surigao Strait was NOT the last great Naval Battle, but frankly the first battle of a new way of warfare, namely that of swarming<sup>188</sup>.

Swarming has been characterized by Arqilla as follows:

- 8. Autonomous or semi-autonomous units engaging in convergent assault on a common target
- 9. Amorphous but coordinated way to strike from all directions
- 10. "sustainable pulsing" of force or fire
- 11. Many small, dispersed, inter-netted maneuver units
- 12. Integrated surveillance, sensors, C<sup>4</sup>I for "topsight"
- 13. Stand-off and close-in capabilities
- 14. Attacks designed to disrupt cohesion of adversary

As Arquilla further states:

"Swarming has two fundamental requirements<sup>189</sup>. First, to be able to strike at an adversary from multiple directions, there must be large numbers of small units of maneuver that are tightly internetted—i.e., that can communicate and coordinate with each other at will, and are expected to do

<sup>&</sup>lt;sup>188</sup> See Arquilla et al at Rand.

<sup>&</sup>lt;sup>189</sup> From Arquilla.

so. The second requirement is that the "swarm force" must not only engage in strike operations, but also form part of a "sensory organization," providing the surveillance and synoptic-level observations necessary to the creation and maintenance of "topsight." Swarming relies upon "the many and the small," as well as the notion of a command element that "knows" a great deal but intervenes only sparingly, when necessary. These two fundamental requirements may necessitate creating new systems for command, control, communications, computers, and intelligence (C4I)."

But when Oldendorf's entire attack group assembled in Surigao there were several key technological changes as well as attack strategy changes which had occurred.

First, technologically the whole attack body had a communications system facilitated by the TBS (talk between ships) as well as other radio systems and frankly also the other older systems including night lights<sup>190</sup>, the between ships system. The ships had highly effective radar for determining where the enemy was. The ships had very sophisticated computers for targeting and fire control, especially of the torpedoes. Finally the attack group had and utilized the strategic element of the Combat Information Center, the CIC. The CIC was introduced into operations by Commander Wylie in late 1943 after the success of destroyer leader such as Captain Arleigh Burke and Wylie gathered the whole approach while in battle at the Battle of Tassafaronga on the destroyer USS Fletcher with Commander Cole as its captain. Wylie, Naval Academy class of 1932, was then on the Nimitz planning staff in Pearl Harbor have served considerable combat time<sup>191</sup>.

<sup>&</sup>lt;sup>190</sup> In a strange way the night lights used by the Signalman was a secure low data rate system which allowed point to point but inter-netted communications. The prime example of how effective this was occurred after the Albert W Grant (DD 649) had been hit by the Denver and the Grant managed to establish a net communications link with the Pennsylvania and then in turn with the flag, Oldendorf, who immediately called a cease fire. The IFF and other communications systems had been hit by friendly fire but the alternative optical light system worked perfectly.

<sup>&</sup>lt;sup>191</sup> See Hone, T., C. From Concepts to Capabilities through Learning ; which states: "The problem was that the new radars had produced a lot of relevant data, but the individual ships lacked a process for turning that data into essential information that their captains could act on. There was one exception, however. The executive officer of new destroyer Fletcher, Lt. Commander J. C. Wylie, Jr., had rigged a radar control room "just off the chart house" where he could monitor in real time the information from Fletcher's radars and the reports sent Fletcher by other ships. Wylie spoke directly to Fletcher's captain, who stood in his traditional post on the bridge, informing the captain of friendly and hostile ship movements that the captain could not see. Wylie did not create any new equipment. Instead, he organized that equipment in such a way that he could draw useful information from all the data that the equipment produced.....As Fletcher's captain noted in a 19 November 1942 report, "the officer [Wylie] in Radar [sic] control was able to keep the Captain constantly informed of the tactical situation, which was often visually obscured; was able to select and then designate gun targets; and was able to coordinate the fire-control tracking and torpedodirector pointing for torpedo fire."8 In short, Wylie provided his commander with "situational awareness," with the result that Fletcher came through two very severe engagements in November essentially unscathed....Fletcher's successful performance was documented in reports to the Pacific Fleet Destroyer Type Commander in Hawaii, Rear Admiral M. S. Tisdale, and in reports to the senior Navy commands in the Pacific and in Washington. 10 Early in 1943, Tisdale transferred Wylie to his staff and directed him to produce a short handbook on how to use the available equipment and new data evaluation procedures to create a CIC. Wylie and his colleagues produced the "CIC Handbook for Destroyers" in two months. The "first run of about five hundred copies... was an immediate success and within a short time was widely reprinted and distributed throughout the navy." Tisdale then sent Wylie to Washington to gain the support of the Bureau of Ships (responsible for search radars and plotting equipment), the Bureau of Ordnance (responsible for fire control radars), and the Atlantic Fleet destroyer type commander....The next step was to institutionalize the CIC The next step was to institutionalize the CIC concept—that is, to build on Wylie's operational innovation to make it both the standard operating procedure and a stimulus for further advances in technology. Making the CIC a Navy-wide standard was done by issuing handbooks and tactical bulletins. The Pacific Fleet staff also began publishing a special journal (CIC) in 1944, and fleet tactical doctrine was formally changed that same year.13 New military occupational specialties were created, CIC schools were set up, and newer ships were altered so that they had sufficient space for the equipment needed by a working CIC. Facilitating this rapid institutionalization of the CIC concept in surface warships was the
This was the first battle where all the elements came together for the first time; command, control, communications, computing and intelligence. The CIC was the element which allowed for that communications. The  $C^4I$  scheme of Arquilla for what he perceives is the next generation of warfare using  $C^4I$  was there in Surigao for the first time. Unlike Jutland, Midway, Coral Sea, or any of the prior Battles,  $C^4I$  was active.

Furthermore the weapons were now much effective. Torpedoes were used extensively and then backed up by the battle line's big guns. The PT boats and the Destroyers, specifically DESRON 24, 54, 56, literally swarmed the Japanese fleet of Nishimura in a loosely coordinated manner, relying heavily on the command and control elements via the CIC. The PT boats were at the entry to the Strait and the Destroyers were positioned as the Japanese fleet came through. The swarm of Destroyers and PT boats were in constant communications, and there was, with the exception of the cruiser Denver, constant and effective command and control via the CIC. The PT boats, not truly adequate attack elements, did, however, provide intelligence and thus combined in the context of the CIC was a critical element.

Where the arrogance of a captain on the Denver both ignored and overruled the CIC control element on his vessel, there was damage and death; where there was not, such as on the Pennsylvania, there was success and the saving of life. Thus it is argued that understanding Surigao is understanding swarming warfare. Understanding the Grant (DD649) and its sister destroyers and their coordinated action, highly linked via the CIC with the entire attack group is understanding the future of naval warfare.

In this paper we restate the swarming principles as articulated by Arquilla and expand upon them., We then place them in the context of an analysis of the battle of Surigao Strain and show that all of the elements as characterized by Arquilla for swarming were met in that engagement and then we use that engagement to reach several conclusions on what seems to work well and what did not. Lessons from Surigao are valuable. All too often this is looked upon as an artifact of the old way to fight. In reality is a paradigm for a new way. The battle of Samar on the following day, with Kinkaid and the lost Halsey is a way in which not to fight a battle.

The Battle of Samar, the second battle of Leyte demonstrated incompetent communications, lacking command and control, and the gross disuse of the swarming capabilities of the destroyers and lack of presence of the PT boats. It was looked upon by Kinkaid as an old style battle, and he never used Oldendorf and his forces who were still chasing Shima and the other fleet. We argue that the failure was not as much in Halsey and his attempt to follow a phantom Japanese force but in Kinkaid and his gross failure to understand what Oldendorf and his attack group had just accomplished. When Halsey left with the 3<sup>rd</sup> Fleet, Kinkaid did not use Oldendorf as he had done in Surigao and the loss was significant at the Battle of Samar Island<sup>192</sup>.

effort already expended in the Pacific to create effective air defense (or "fighter direction") centers on board aircraft carriers." see: <u>http://www.oft.osd.mil/initiatives/stiletto/docs/Concepts%20to%20Capabilities%20Paper%20April%2006.pdf</u> also see: <u>http://www.destroyerhistory.org/fletcherclass/ussfletcher/index.html</u>

<sup>&</sup>lt;sup>192</sup> See Potter, Halsey and see Halsey and Bryan. Both books treat the failure of Halsey to stay lightly. Buell's in Spruance looks at what Spruance did at the Marianas and the Battle of the Philippine Sea as the opposite of Halsey. However the two Admirals had different orders. Halsey was to find and fight the Japanese and Spruance was to defend Turner and his landing forces.

Arquilla had been developing insight into a tactic called swarming. He argues that there are four paradigms of attack and that the most recent which is heavily dependent on technological advances in communications and inter-netting in a highly distributed manner is called swarming. Arquilla further argues that it is the ability to increase the information procession capabilities that has enabled this and further that there have been great advances in embedded "structural information". We argue that the Battle of Surigao Strait was perhaps the first example of swarming and that it occurred because all of the technological advances that Arquilla has envisioned were in effect operative at that time, and at that time for the first time.

Arquilla classifies the four paradigms as follows:

1. Melee: This includes linear face-offs, with easily dissolved formations and in these melees the command and control nearly impossible during battle. The mass of forces just charge and do whatever, and there is no coordination. To some degree this is a street fight, groups just mass, and then a spark ignites the whole process. The fight just goes on its own.

2. Massing: In this paradigm Arquilla argues that there is some form of stacked and geometric set of formations for set-piece battles, with a front, a rear, and "waves". In this type of warfare there are defined Doctrines for maintaining hierarchy, shape, thrust. In massing it is assumed that the group all has some idea as to why they have assembled, and that they have also pre-agreed on some set of general principles of the battle. However as the Prussian strategist Count Helmuth von Moltke has said: "No plan survives contact with the enemy."<sup>193</sup>

3. Maneuver: This is a set of complex, synchronized, fast-tempo, multi-linear operations to surprise, penetrate, flank the enemy. Arquilla argues that it is an application of mobile mass at "decisive point" to achieve victory. An example of a Maneuver was the Battle of Tsushima in 1905 and the Battle of Jutland in 1916. The Battle of Tsushima, was the most decisive sea battle of the Russo-Japanese War of 1904–1905. It was fought on May 27-28, 1905 in the Tsushima Strait. In this battle the Japanese fleet under Admiral Togo destroyed two-thirds of the Russian fleet under Admiral Roshestvensky. The Battle of Tsushima was the only sea battle in history in which battleships fought a decisive fleet action. Tsushima was the battle in which Togo had the Russians cross his "T". Namely his battle line ran horizontal to the Russian fleet allowing Togo to use all the guns on his ships to wreak havoc on the Russians. The Russian fleet was outmaneuvered.

4. Swarming: Arquilla argues that the prime characteristics of his swarming strategy are<sup>194</sup>:

a. Autonomous or semi-autonomous units engaging in convergent assault on a common target.

<sup>&</sup>lt;sup>193</sup> Miller, War Plan Orange, p. 333.

<sup>&</sup>lt;sup>194</sup> See Arquilla, Swarming.

- b. Amorphous but coordinated way to strike from all directions—"sustainable pulsing" of force or fire.
- c. Many small, dispersed, inter-netted maneuver units.
- d. Integrated surveillance, sensors, C<sup>4</sup>I for "topsight".
- e. Stand-off and close-in capabilities.
- f. Attacks designed to disrupt cohesion of adversary.

The following Table depicts the swarming elements as defined by Arquilla and the specific characteristics as occurred in the Battle of Surigao Strait.

# Table 8 Comparison of Swarming and Surigao

Table 8 Comparison of Swa	arming and Surigao	
Autonomous or semi-autonomous units engaging in convergent assault on a common target	The common target was Nishimura's fleet. The units attacking were several fold; PT boats at the entrance of the Strait, separate destroyer Squadrons, DESRONS 24, 54, and 56. All converging all autonomous with a single goal in mind.	
Amorphous but coordinated way to strike from all directions—"sustainable pulsing" of force or fire	The DESRON strike forces were loosely coordinated. Particularly with Captain Smoot and DESRON 56. The destroyer attack approach was section by section one after the other and with loose coordination with the Flag.	
Many small, dispersed, inter-netted maneuver units	The inter-netting was essential. The use for the first time of the CIC, the Combat Information Center, and radar and radio, allowed for this real time inter-netting.	
Integrated surveillance, sensors, C <sup>4</sup> I for "topsight"	The CIC accomplished all of the C <sup>4</sup> I functions. The submarines Darter and Dash provided early warning and notice of the enemy progress, the PT boats provided initial swarming of the forces but at the same time established a highly distributed communications and surveillance network.	
Stand-off and close-in capabilities	The strategy of Oldendorf was two fold: one was clear swarming with the destroyers and PT boats, The second was his approach to a "crossing the T" with his battle line. Oldendorf actually combined a maneuver strategy behind the swarm, but in swarming theory this was the stand off and close in approach.	
Attacks designed to disrupt cohesion of adversary	The clear strategy as discussed by Oldendorf was just that, disruption, drive Nishimura back, and destroy as much as he could. Oldendorf was aware that Shima's fleet was behind Nishimura.	

We build on this analysis and provide the details to show how it was implemented. The CIC is a dramatic step forward in this design of a war tactic.

Swarming is a tactic which has proven its success. We have argued that one of the first true swarming battles using all of the elements characteristic of swarming was the Battle of Surigao Strait. It was the Battle of Salamis of our generation. We also argue that the Surigao battle was one which may likely define swarming attacks and battles looking forward. Unlike what many say, it was not the last of the great sea battles. It was, we believe, the first of a truly new form of warfare. Namely it used a highly distributed attack force, in the dark of night, facilitated by an integrated collection of technologies, integrated by the use of the CIC, just months old in terms of implementation, and used a highly integrate, distributed and redundant communications mesh.

The key elements of the Surigao swarm success were as follows:

- 1. Clear Set of Goals: Total and abject destruction of the enemy was intended. There was no such concept of surgical strikes. The intent was annihilation. Delimiting the strike capability dramatically draws down the ability of the forces to achieve an ultimate victory.
- 2. Clear Action Strategy: Oldendorf was highly effective in articulating and executing the strategy. He gave Smoot all the leeway necessary to swarm the oncoming forces and then to clear the field for a follow up by the battle line. It was solely the arrogance of Bledsoe which seems to have resulted in the American casualties.
- 3. Clear Plan B: Oldendorf had the ability to communicate and command in short order. The ability of the Grant to communicate by lamp to the Pennsylvania, having lost all of its radio to fire by the Denver, and then from the Pennsylvania to Oldendorf on the Louisville in seconds is a clear indication that Oldendorf and the CIC worked perfectly. The lingering question will always twofold: why did Kinkaid give Bledsoe a Navy Cross and why did Kinkaid not use Oldendorf in Samar<sup>195</sup>. Halsey's recriminations regarding Kinkaid may have more merit that the Old Admiral may have ever known<sup>196</sup>.

Looking at this battle it may convey certain insight to future Navy planning. Currently the Navy has a set of fleets comprised of the following active and in process ships:

<sup>&</sup>lt;sup>195</sup> Morison, Leyte, discusses in some details the issue of Kinkaid not using Oldendorf. Morison argues in Kinkaid's favor stating that; (i) Oldendorf was too far away, (ii) Oldendorf may have too little ammunition but here Morison hedges considerably, and (iii) Kurita just seems to leave so it becomes a moot point.

<sup>&</sup>lt;sup>196</sup> Halsey, in his autobiography Halsey states on p. 220, "Then came the sixth dispatch at 0922....under attack....request support by heavy ships...(old battleships) low in ammunition" Halsey then continues: "Low in ammunition! Why hadn't Kinkaid let me know before?....I looked at the date-time....I realized this was the third message....what had delayed it. I have never learned." Halsey makes two excellent comments here. First, despite the Morison comment, Kinkaid was not prepared for options, his ships across the board were not adequately provisioned. Second, this shows that cross Fleet communications, all going back to Manus by VF coded messages and then rerouted, allowed for breaking and delaying of net communications at the highest level. At the low level it worked superbly but at the higher and more critical level it broke down. On pp. 226-227 Halsey attempts to deal with what he perceived of as his "mistake". It seems clear that he still harbored concerns as regards to Kinkaid. Thomas, Sea of Thunder, recounts the hostility between Kinkaid and Halsey. Halsey had relieved Kinkaid after the poor performance of the Battle of Santa Cruz Island off Guadalcanal in October 1942. Thomas states "Kinkaid was bitter about getting shoved aside, especially when Halsey refused to see him afterward." Part of the selection of Kinkaid as the head of the 7<sup>th</sup> Fleet was the hostility between Halsey and Kinkaid. MacArthur found this useful since it assured that two "old Navy buddies" would not talk behind the General's back.

- 1. Carriers (CV): There are 11 carriers on record. including the George H. W. Bush. They form carrier groups.
- 2. Cruisers (CG): There are 22 cruisers on record.
- 3. Destroyers (DD and DDG): There are 56 DDG, guided missile destroyers of the Arleigh Burke Class.
- 4. Frigate (FFG): There are 30 Frigates currently in service.
- 5. Littoral Combat Ship (LCS): There is one LCS in test. The LCS is a swarming vehicle for close in or close to shore action.

For the most part the current Naval Fleet is a stand off and attack fleet. In many ways consistent with the WPO approach through Phase II. The LCS appears to be a hybrid PT boat with a destroyer, albeit with many other facilities. There is just one trial LCS at this time. The risk is that for example at the Battle of Leyte there were over 1,000 US ships, over 200 for Halsey and over 800 for Kinkaid. The entire US Fleet including the above is slightly more than 300. Thus any attempt to swarm would be impossible, there are just too few big platforms and not enough if any small ones.

The question that must be asked is what is the threat and how can the threat be dealt with. The key case perhaps if the USS Cole in Yemen. A micro swarm, two rubber boats managed significant damage. Current intelligence estimates states that Iran has developed a swarm strategy:

"The Iran navy has procured hundreds of fast patrol boats as part of what is believed to be a swarm strategy to overcome the firepower of U.S. cruisers and destroyers.... Under the purported Iranian concept, the FPBs would be armed with torpedoes and rockets that could be quickly fired from short range. The analysts said the radars of U.S. destroyers would be unable to detect small Iranian speedboats in the northern Gulf....These boats could be filled with explosives and rammed into U.S. surface vessels, the analysts said. They cited the success of an Al Qaida attack that crippled the USS Cole in Yemen in 2000....Over the past six weeks, the Iranian navy conducted two exercises in the northern Gulf designed to test the swarm strategy. The analysts could not assess the results of the exercises".<sup>197</sup>

Thus one threat is Iran and the Gulf Region. Another could be China. Others could be off the African Coast or even in South America along Venezuela or other similar countries. The costs of swarming are low, the benefits are high. The infrastructure and training are high, otherwise it defaults to a melee.

Finally, a swarm can be an offensive or defensive approach. Surigao was defensive. The Iranian threat is offensive. No matter which one anticipates it is critical that the logistics, the landscape, and the location be optimized. There are good swarm locations, Surigao and Salamis are both ideal as is the Iranian sea lanes and many other such locations. However, whether offensive or defensive, the current Naval strategy of so few ships and a stand off attack profile can be quite risky. Alternatives and options are essential.

<sup>&</sup>lt;sup>197</sup> http://vwt.d2g.com:8081/2006/06/\_irans\_navy\_developing\_swarm\_s.html

The Battle of Surigao Strait was, in our opinion, the first of a truly technologically based swarming battle. It employed highly distributed, autonomous, and inter-netted attack elements which went after an enemy attack forces and was highly successful. Although it did employ a "crossing the T" maneuver, it was primarily a swarm approach. The element of the CIC and its implementations and execution in the destroyer environment was exceptionally successful. The one failure was the firing of the Denver on the Grant. We have argued, from the historical record, that the fault for that was the Denver's Captain, Bledsoe. Further we argue that Admiral Kinkaid never understood what had transpired and, despite the fact that the Grant Captain received the Navy Cross, somehow, the Captain of the Denver received one also. These were the only two men to be awarded Navy Crosses in this Battle at Leyte. Perhaps Kinkaid was distracted by the Samar battle, perhaps there may be truth that classmates, Bledsoe and Schaeffer, who was Kinkaid's Chief of Staff, were close, perhaps many others such speculations. What is clear, however, is that Surigao showed that one could take a group of bright young men, given them the technological tools, show them how to use them, and that this group can effect a great victory.

## 11.2 Personalities and Leadership

The Grant is a study of leadership as well as a saga at sea. Hamill in his book recounts his first captain and the fact that he was less than exemplary. Hamill further recounts the many times of Nisewaner and his sense of continual excellence. When one looks at the way the crew responded one sees that indeed Nisewaner was exemplary, Also when one looks at how the transition occurs, one sees that Higginbotham, three years the junior of Nisewaner, also demonstrated the competence and skills that made him an excellent leader of men as well. Both men had the respect of their crews, both them brought their crew into battle and brought them back.

Hamill stands out here as the teller of the story. We hear much of it through his eyes in his book. Nisewaner tells some in his letters and Higginbotham tells some in his long recounting. Both Captains inputs are important but Hamill tells it from a very personal perspective as well. One gets to see Hamill and understand his voice. One sees the impact that Harvard had upon him and how he brought that outside perspective to the Navy. The voice of Pfeifer is heard as well but it younger and less strong as compared to Hamill. The voices of the others have been stilled over time but it would be interesting to have heard them.

Then there are the voices of the enlisted crew. The strong ones like Crump, the still young ones like Burns, albeit in his late eighties, one still can hear the voice of a Tennessee teenager. The enlisted are such a mix, a mix of region, education, background, belief, but all of true strength and commitment.

The officers were a few Academy and most just college educated. There are no warriors in this bunch. This is not a Marine battalion, there is no bravado, they are a team and are clinically operating to achieve the mission as a team. One could compare this team to antithesis of that of the Caine Mutiny. I remember the first, and I think the only, film my father ever took me to was the Caine Mutiny. It was early 1954, I was probably eleven, and it was a cold rainy winter

evening. We went to a small local theater and the crow was not small. It was a week day night, I don't know why he took me but there we are.

It was the first grown u film I had ever seen. Frankly, in the days before television, one would not expect a youngster, yes in this days eleven was young, to understand what was going on. The movie had a strong impact. I remember we left the theater, it may have been 10 pm or so, and we walked home, about a three miles. In those days we had no car. It may have taken a hour. It was silent. No "What did I think?" no "Did I like it" no "That was what it was like in the Navy". just silence. Frankly I do not think he expected what he saw.

He may have thought it was to be a story about destroyers and that it may have some good memories, perhaps he was afraid of what it would bring back so that is why he dragged me along, but whatever, it had I suspect a negative effect, but for different reasons, he liked Capt Higginbotham and Captain Nisewaner, and there was never a bad word about anyone on the ship. The impact was that of mistakenly bringing your child into some profane event, and you may have thought it was just a circus.

But the crew of the Grant for its entire life was a positive and affirmative group of the best of American men. The bonding of them post the War lends true belief to the fact.

The others involved are a real mix. King, well King is King and he never really impacted the Grant. Nimitz, the more one understands Nimitz the more one sees a brilliant strategists and respecter of men. He had strategic capabilities better than almost anyone else, and that included Marshall and Eisenhower. He managed his men with respect and they honored him with their best in return.

Halsey, well Bull was just that, a big Bull, lucky most of the time for shooting from the hip, and leader by persona, and maker of a few big mistakes. But loyal, a believer in the chain of command. The recent book by Evan Thomas, a reporter and revisionist writer of history, from page one tries to pain Halsey as some racist. The Japanese were the enemy. The beheaded Americans, they were suicide bombers, they wanted to destroy the United States and the American way of life, they surprise attacked the US, and they were ruthless in their way of war. The only way to defeat them was through unconditional surrender and the only way to achieve that was the use of nuclear weapons. Thomas is too young to understand this. They were the enemy and that is the way Halsey acted. The success in this war was in my opinion a success of a war strategy led by FDR, win, win, win. Befriending the Japanese and talking with them and humanizing them at that time just did not work. However, on September 6, 1945, they immediately turned around. That is what makes them different.

Spruance, another brilliant strategist, his tropical hat always on his head, his letting his men work through the details, his lack of micromanagement, made him the unheralded hero. He, just as much as Halsey should have gotten the fifth star. But Spruance was a true man and a true leader. Herman Wouk in his novels portrays Spruance and does an excellent job at bringing the true man forth. He was one of the true field leaders in the War.

Oldendorf, a man so close to the Grant for its years at sea. His attention to detail, his acceptance of the technology and technique, his ability to look at the men under his command and to maximize their impact on the enemy at the same time minimizing harm to them was amazing. The Grant served under him for many of the missions. In many ways the Grant may owe Oldendorf for his ability to respond instantly to the threat to the Grant from the Denver. Oldendorf is a true fleet admiral.

Kinkaid, he is a politician. He got his wrists slapped by Halsey and cuddled up to MacArthur. He was Kimmel brother in law and thus knew Nava games and how to play them. He saw that with Kimmel and the Halsey problem he had two strikes and success with MacArthur was his only out. He was bright, had quite a few successful operations, and his campaign in the Aleutians was indeed a success, albeit a bit out of the way. But one will wonder why he said what he said about Nisewaner. It is astounding. Nimitz would not stoop to such a level. It goes beyond saying something derogatory it is saying something defamatory. Thus in out tale one will always wonder why he said what he said especially given the fact that he was so politically oriented and sensitive. Perhaps....well one could just wonder.

Finally the villain of the piece, Bledsoe. What do we know, he became a Rear Admiral, had several commands after the Navy including head of Guantanamo. He also headed some submarine operations. Before the War he actually worked in the Navigation Department under Nimitz. The question is how does such a man get to where he goes. In the Navy, again so many institutions it is playing the game and who you know. TBF

# 11.3 Technology, Change, and Warfare

In many cases the development of military strategy is built upon the actual actions which have already of men in the field of battle. Oldendorf and Surigao is an example. What characterized Surigao, now looking back over sixty years with the lens of technological advance and new views of warfare are:

- 1. It was a battle in the dark. The Air Force calls it a hood down attack, and it is warfare as we now most likely will see it. The battle at night was to have certain strategic benefits to the Japanese. All of these benefits did not reveal themselves. Night battles, especially starting with Surigao, introduced new eyes and more importantly new ways of communicating and making decisions.
- 2. Radar gave the Navy the ability to see the un-seeable. The three tiers of radar, search fire control and antiaircraft, mapped or painted the field in all directions. It provided a wealth of information which had to be converted into action.
- 3. IFF, the identification friend or foe radio allowed for the unseeing eye to determine who was on our side and who was not. The only one not or actually refusing its use was Bledsoe. Use of IFF allowed freer breath of movement, it allowed your own forces the ability to move in and out of the enemy without going into harms way of friendly fire.

- 4. Communications was successfully employed via the TBS. Despite the fact that is was really nothing more than a CB radio system, and had the disadvantages of being heard a distance under certain circumstances, it allowed for real time distribute communications at night, in the dark, and during a battle.
- 5. Fire Control was another major advance. It introduced computers into warfare. The Army and Marines did not have the level of sophistication that the destroyer did.
- 6. Command and Control was radically changed by the attack by Smoot. He allowed freedom of movement as the destroyers went across the field. This could be accomplished because of the radar, TBS, and CIC. It became a true swarm approach wherein the resources of the Navy attack elements, in this case the destroyers, were allowed a freedom of motion to move in the attack field independently, while remaining in the attack group. Also this was all accomplished at night. It would confuse the attacking enemy and make them greatly more vulnerable.
- 7. The CIC was at the heart of this revolutionary change. It gave the captain of every ship a view of the entire field of battle, his forces as well as the best guess on the enemy forces. The US Military today is still struggling on how to do this for ground forces. How does the military get to a Major or Captain what is where on the battlefield. There are volumes of data and information but there is often no way for the Captain or Major to see over the hill in real time. He can request some intelligence asset such as a Predator drone of tasking a satellite but the processes involved are complex and unworkable in a real war situation. For certain special forces missions this may work but not for all. The Battle of Surigao showed how it worked splendidly.

What is most surprising is that the Navy has not gone back and studies this battle as the first on a battle which is fully electronic. It is a battle where the support and leadership of Oldendorf appears to have created a new way to effect Naval forces. It is a battle which clearly demonstrates the capabilities of small independent internetted attack forces against a large enemy fleet. It is a battle which defined potentially 21<sup>st</sup> century Naval warfare with non traditional enemies.

## 11.4 Impact on Some Men

On the less comfortable side was the presence of what we now call post traumatic stress disorder or syndrome, PTSD. In World War I it was called shell shock. In World War II it was battle fatigue, and now PTSD. I remember by grandfather's older brother, who had fought in World War I, he would come to visit us from time to time. He lived in a Veterans Home, whatever that was, and he would come and sit out in my grandfather's car, always a dark blue Chrysler, and never come in. I would walk out to try and talk with him but he would just sit there. He could not really be moved without effort. He had been gassed and was shell shocked. All they could do with him was put him in an institution and have my grandfather take him out on a periodic basis. He was in France and we never really knew what happened. My grandfather's older brother had been killed and this was his last remaining kin. In those days the psychiatric profession just warehoused those they could not treat by talking to.

Today medicine has a definition for PTSD<sup>198</sup>. PTSD is described as:

"The symptoms of PTSD are readily identifiable by a primary care physician. Because there is substantial overlap between the symptoms of PTSD and those of depression and other anxiety disorders, however, the diagnosis is easily missed unless specific inquiries are made about the occurrence of a traumatic event.

Often practitioners are reluctant to ask their patients about events that might be distressing or that might involve shame or secrecy, and patients will not usually mention such topics without prompting. By providing patients with the opportunity to disclose such events, practitioners break down an important barrier to treatment by legitimizing the event as a valid explanation for symptoms.

Exposure to a traumatic event can often explain the presence of nonspecific symptoms such as palpitations, shortness of breath, tremor, nausea, insomnia, unexplained pain, and mood swings, as well as a reluctance to undergo certain types of examinations .... and behavior such as non-adherence to treatment, which may be a manifestation of avoidance.

Thus, otherwise unexplained physical symptoms or behavior may prompt clinicians to question patients about the possibility of traumatic experiences and the specific symptoms of PTSD."

Furthermore the diagnosis of this includes the following:

"A person must have been exposed to a traumatic event and:

1. The person's response to the event involved fear, helplessness, or horror.

2. The person persistently re-experiences the event in at least one of several ways:

3. The person has intrusive recollections of the event; nightmares, flashbacks, intense psychological distress in response to reminders of the traumatic event, intense physiological reactions in response to reminders of the event (including palpitations, sweating, difficulty breathing, and other panic responses).

4. The person avoids reminders of the event and has generalized numbness of feeling,

5. The person has symptoms of increased arousal such as difficulty falling or staying asleep, irritable and has feelings or outbursts of anger, difficulty concentrating, become more vigilant and concerned about safety.

<sup>&</sup>lt;sup>198</sup> See **POST TRAUMATIC STRESS DISORDER** RACHEL YEHUDA , PH. D. , NEJM, January 2002 p 108.

The disorder must cause clinically significant distress or impairment in social, occupational, or other areas of functioning."

This has been seen in several of the crew members. This is especially the case of Crewman DelToro. He was seeing VA psychiatrists in the 80's and it was clear that his life was spiraling out of control. The Grant crew got together and actually tried to convince the VA of the seriousness of the problem. He was a walking case of the symptoms, his reports were pathoneumonic for the disorder but the VA would not treat the, it seemed he was in the wrong war. Had he been a Vietnam Vet it would have been much more likely he would have been treated.

Many more of the crew may have exhibited the symptoms but they were trained to keep them in. As such, a Viet Nam vet would more likely be treated for a less severe case of PTSD than an World War II Vet.

11.5 The Men of the Grant and Their Impact on History

TBF

# 12 APPENDIX: DESTROYER STRUCTURE, ARMAMENT, COMMAND AND CONTROL

In this chapter we provide a high level but somewhat detailed overview of a Fletcher Class Destroyer like the Grant. The reason for this presentation is that there is a necessity to have some understanding of the physical and operational characteristics of what was inside such a vessel at the time the events recorded herein occurred.

To understand the men and their challenges as well as their unique competencies, one must understand what tasks they were set to perform. The work of the enlisted man and the officer was much more complex here than at any time before. It crossed the threshold in what we now come to see as modern warfare. There were computers, and there were integrated command and control systems. The men were ale to take massive amounts of data, from radars, radio, sonar, optical scanning devices and other inputs and convert then into an orchestrated set of actions in the lethal game of naval warfare. Understanding the issues in the Chapter also allows for an understanding of the challenge that confronted the men at time of challenge, such as the taking on of the water at Surigao.

There is a tipping point, literally, when a ship goes from stable to unstable, and sinks. That point gets set in the captain's and XO's mind and become visceral, they feel how close they are getting and then must determine if they should just give up and abandon ship. Unlike so many other tales about this War, we have attempted to provide the 21<sup>st</sup> Century reader with the understanding that their Great Grandfathers were as adept if not more so at computer usage then anyone today, and in addition it was real warfare.

This was a complicated and a modern warship. It had computers, far more complex that the current day PCs, despite what many would think to the contrary, and it had a collection of other ingenious devices and systems. It also had a methodology for working. That is epitomized in the CIC which was a revolutionary element in Warfare. The Destroyer in World War II was both an dramatic innovation and an even evolution of a ship of the line. It was an evolution of the torpedo ships which had originated in the Civil War and it was a revolution in creating an integrated weapons systems, the ability to seek out and attack and destroy enemy resources using a single integrated platform manned by a sophisticated and well trained crew using the highest in technology. It was a dramatic innovation because it was the first time a fully integrated computerized weapons system platform was deployed as part of an overall naval strategy of war.

The destroyer used radar, sonar, and had fire control computers which for the time was at or even beyond the state of the art as of the beginning of the War, and integrated all of these with a set of weapons including torpedoes, guns and depth charges. The weapons systems could deal with airborne, land based ship based and submerged threats and targets. Unlike the battleship which was a platform for gigantic guns, and unlike the aircraft carrier which was a platform for launching aircraft, the Destroyer was a unique versatile multi threat weapons system. It was extremely efficient in the use of men and technology. It was readily deployable. It could move from place to place, and like a swarm of hornets, it could work in groups and swarm upon the enemy in a flexible and relentless fashion. It did not require the thousands in a crew of a carrier or battle ship, even when crews were killed in numbers exceeding fifty percent it could battle on in an ever effective manner.

What would even more amazing is that all of this capability, and the capability of networking the Destroyers together in that lethal swarm, the ability to integrate and effect desired strategic goals, was accomplished with crews, officers and men, who were regular men from regular jobs, and many just seventeen out of High School, men who in just the period of a few months could master the complex integrated systems of this new weapon. Men who would enlist and join in the fight on a enemy who threatened the very lives of their families. Men who had their own families and lives, put them on hold, and risk their very beings on this vessels.

To understand the men and their missions, it is first necessary to understand the Destroyer, its structure and its systems. The advantage we have of time is that we can see in this ship and its operations what perhaps those at the time were not able to do, and moreover those at the time had not even anticipated. The description of the Destroyer contains two main elements; ship qua ship, namely the structure and its innards which make it sail, and the weapons systems, and how they interrelate. Once we can see these parts, we can then see how the men fit in. For it is the case here that the men were made for the tasks, and we will see the men then took over this ship and made it do more than its creators may have ever envisioned.

# 12.1 Inside the Ship

The inside of a Fletcher class destroyer like the Grant was a complex connection of living, working and fighting places. The bridge was the command post for the ship. The picture below shows the bridge on a Fletcher which is very close to the Grant<sup>199</sup>. The bridge is quite small. Above the bridge is a flying bridge which gives you the full view around the ship. Just above and behind the flying bridge is the director.

<sup>&</sup>lt;sup>199</sup> These pictures are from the USS Cassin Young at the Boston Navy Yard. This destroyer had had modifications for operations in Korea and thus may not be in complete World War II condition.



Figure 118 Bridge

On the back end of the Bridge was a mass of phones for intra ship communications. The Bridge and in turn the captain must be able to communicate with any location of the ship. Many of these phones could function without any power.



Figure 119 Communications

The bow of the ship in front of the No 1 5" gun is a flat and narrow area. This is shown below. This was part of what was seen from the bridge. The ship is really quite narrow and fore of the No. 1 5" gun there was very little. In high seas this bow would be covered by the sea and at times actually under it!



Figure 120 Bow of ship, fore of 5" No 1 Gun

The enlisted men slept in three high bunks. They were spring bottom bunks with a thin mattress and sheets and a blanket. However the blanket was not used very frequently in the Pacific where the temperature could get to 130 ° F! Above each set of bunks was a tube in which forced air was flowing. Some men tried to direct the air by inserting paper or cardboard to push the air down on the bunks. Some men even tried to drill new holes. Pfeifer recalls catching men drilling a pipe thinking it an air duct and it was really a high pressure water pipe! The results could have been disastrous.



Figure 121 Enlisted Bunks

The enlisted men's mess was a set of tables and seats bolted to the floor. The picture below depicts the typical mess on a Fletcher but in this up to date mess there are florescent lights. In the Grant they were bulb type lights. Meals were fast and simple. Get your food, eat it and then on to the next stop.



Figure 122 Mess

The Chief Petty Officers had separate accommodations. Their bunks were a step above the enlisted men and they had some semblance of privacy. The Figure below shows the CPO bunk areas.



Figure 123 CPO Bunks

The officers quarters were a bit above the CPOs. They had two to a room and had some privacy for toilet facilities in each room. The main characteristics of an officers quarters was the chair, the sink, the table and the cabinets for personal effects. The wall on the side of the bunks is only  $3/8^{th}$  inch steel! That is all that protects one from the elements and the enemy!



**Figure 124 Officer's Quarters** 

The shell handling room was the location where the shells would be fed from the magazine below to the 5" guns above. It was adjacent to the enlisted men's bunks. Some of the Grant crew had to sleep there when the space was not available elsewhere. When providing fire support and not under General Quarters, the shell handling room would be quite busy feeding shells. The men next door when off duty and trying to sleep would have to attempt to do so in the heat, the sound and vibration of the 5" guns and the tremendous noise of the gun handler, which was motor driven and would create a continuous high level of noise!



Figure 125 Shell Handling Room

The head was a necessity of life but for the enlisted men had no privacy. One would get used to communal sharing of all.



Figure 126 The Head

The ship was in a continual process of duty stations and sleep. Eating was an interlude between these two extremes. At times as we have seen there may be a card game. The high point would be when there was ice cream or if the deck could be used and there was no enemy threat possibly a movie. There was no radio, obviously no television, few books, and this was never a pleasure cruise. It was work, eat, sleep, and start all over again. The food was good, not great, and when one looks at the men, no one was ever the slightest bit overweight.

### 12.2 Structure and Power

In order to see what challenges the men had one must understand the ship, its functions and its operations as well as all of the elements which made it up starting with its physical characteristics. A Destroyer is composed of principally two elements: (i) the ship as a vessel, hull, boiler, turbines and all, and (ii) the weapons systems which are the primary mission of the Destroyer. The men are there for more than just the ride. They are integral to keeping all of these elements functioning and operating them at times of need.

Thus, in order to understand the men it is necessary to understand their mission and their tools, and most importantly how these tool interrelate. The ship itself was an incremental evolution of ships for millennia, except it had more powerful engines and was capable of faster speeds at greater maneuverability. In contrast, the weapons systems in World War II were to be a revolutionary change from all the past weapon systems.

In the Figure below we categorize the elements of the destroyer as a sailing ship into four areas:

- 1. Control: The ability to take the ship successfully from point A to point B. This includes the navigation, signalling, and quartermaster functions. We have discussed these elsewhere and they are classic roles for Naval personnel.
- 2. Infrastructure: These are the hull related functions. Keeping the hull of the ship is good condition.
- 3. Support: Evaporators which make water, electrical systems, and the damage control. Damage control is only a problem when it is a problem! Then it is a real problem. This

means that the personnel must know what can happen if something specific has resulted, such as a breach of the hull, flooding, listing of the sip, and the like. Fire is always a problem, but the integrity of the hull and the results of failure of that integrity are the most critical factor in saving a ship and its crew. A good captain knows how far he can push the ship before he has to order "Abandon ship" As we have seen in the story of the Grant that point almost came to be. The word was actually being whispered around the ship. But how close was it and how did the Captain and the more sophisticated members of the crew understand where they were and what they could do to stop the possibly inevitable. We address this in this section. It is essential to understand this issue because it goes to the heart of what Nisewaner, Hamill and the others actually did on that fateful day.

4. Propulsion: These are the key to keeping the ship in forward, and if necessary backward motion. The destroyers were high pressure supersaturated steam turbines. The "black gang" the men who worked in the engine room and boiler rooms were in the most trying of circumstances. The turbines were essential and no steam no turbine. We saw how the engines just got the Grant under the Golden Gate bridge. We present more detail on the turbines and boilers in this section.



Destroyer Operations, Maintenance and Damage Control Systems

#### Figure 127 Structure, Operations and Power

## 12.2.1 Structure, Hull, and the Physics of a Ship

Structurally the destroyer is simple. It is a keel, the inside of the ship and its bottom which is made of steel. The keel itself is the central beam which runs along the bottom of the hull and upon which all other elements of the structure are appended. The keel being struck, or laid down, is the first major step in the life of a ship. The hull is then attached to the keel and its

appendages. For a Fletcher class destroyer the hull is a <sup>3</sup>/<sub>4</sub>" sheet of steel. It is thin, light, and somewhat flexible. The hull provides no protection other than from the water. The destroyer is not meant to be safe from enemy attack, it is meant to do the attacking. Thus the hull is at best protection from the elements, and benign elements even so.

The details on the Grant are summarized below. It was a long but narrow ship and it really was not very high above the water.

DD-649 USS ALBERT W. GRANT

## Albert W. Grant DD 649 CLASS - FLETCHER

As Built.

Displacement 2924 Tons (Full), Dimensions, 376' 5"(oa) x 39' 7" x 13' 9" (Max) Armament 5 x 5"/38AA, 4 x 1.1" AA, 4 x 20mm AA, 10 x 21" tt.(2x5). Machinery, 60,000 SHP; General Electric Geared Turbines, 2 screws Speed, 38 Knots, Range 6500 NM@ 15 Knots, Crew 273.

Operational and Building Data

Laid down by Charleston Navy Yard. December 30 1942. Launched May 29 1943 and commissioned November 24 1943. Decommissioned July 16 1946.

The ship is about 377 feet stem to stern and forty feet across. It was the first destroyer class to have an all flat deck stem to stern, one did not have to climb stairs in the fore to get to the bow. This allowed for ease of rapid motion about the deck. The total weight was 2,050 tons, or about 4 million pounds full equipped. It had a draft of about 14 feet, this is the depth of the ship below the waterline measured to the keel. Of course the draft changed depending on how much fuel was on board. Too little and the ship would ride very high in the water. That would be risky since the ship could become unstable in a sever storm and capsize, not too good a thing to happen. The Captain had to be wary of this.



Figure 128 DD 649 Keel being Laid and launching prepared.

The prime element of any ship is the keel. The keel is that long strong base upon which all of the other elements are built upon. The Figure above depicts the laying of the keel for the Grant. Once the keel is laid the hull is built upon that element.



Figure 129 Albert W Grant DD 649

The steel elements of the ship required endless care an upkeep. Fresh from the dry-dock at the shipyard the steel was freshly painted Navy grey and there would not be a chip of rust. But steel and sea water never mix, and once at sea the endless process of chipping and painting would begin.

Another element of the ship structure which is important to understanding the travels of the Grant are those which relate to its stability and its ability to stay afloat.

Consider starting with a simple experiment. We take a brick if 1 foot on each side, so we have one cubic feet of steel. Steel has a density of 490 pounds per cubic foot so we have 490 pounds of steel. We take that block of steel and go to the end of a long pier at the beach and drop it in.

Does it float? No! It sinks. Well how would we keep 3,000 ton of steel afloat, not as a solid brick. We need something else.

Let us assume we can take that piece of steel and mold it into what looks like a cake pan. The base is L feet by L feet, the height of the pan is H, and a thickness D. We can pound and roll the steel thinner and thinner. We can use the same thickness and we can select the sides to be whatever we want but let's assume we choose to have the sides height H as 20% of the base of the pan, L. Thus H is 20% of L. Now we can pound the steel thinner and thinner and make a larger and larger pan. When will it float. We picture the pan and its dimensions below:

$$Volume = LLH - (L - D)^2(H - D)$$



Figure 130 Development of a Hull to Float, all steel is kept in the "pan" like structure

Well to understand how a ship floats we need to understand Archimedes principle. Simply stated, the great Greek noticed that when taking his famous bath that<sup>200</sup>:

# "A body immersed in a fluid is buoyed up or supported by a force equal to the weight of the water displaced."

To better understand Archimedes principle we can rephrase it. If I have something weighing 100 pounds, for example, it will float if it displaces or pushes aside more than 100 pounds of water and still hast itself somewhat above the water. Remember that water weight 62.5 pounds per square foot. This if I use air in a balloon, it will float by definition. Anything of density less than water will float. But if the density is greater then I must mold it so that I create an effective density less than water, namely like a balloon, fill most of it with air.

<sup>&</sup>lt;sup>200</sup> Granger, Fluid Mechanics (Naval Academy) the buoyancy force equals the weight of the displaced fluid. p. 128.

How do I achieve this feat. Well quite simply. I take the material and make an inside and an outside. This means I form a hull! That is I make a ship. Inside is the steel hull, now very thin, and lots of air, like a balloon but with only a bottom.

Let's go back to our brick of steel. All solid and 1 cubic feet of steel with 490 pounds. It displaces one cubic feet of water weighing 62.5 pounds. Thus the force trying to push up the steel block is 62.5 pounds but the block weighs 490 pounds, so down goes the block!

So lets take up a second step. Say we make a cake pan of 10' by 10' by 2' high. The volume is steel must stay fixed at one cubic feet. We know that the volume of the cake pan ship we have must stay 1 cubic feet and that the only way to do this is to change the thickness. We have an equation for the volume as below. If we insert the numbers for the square base and sides and leave the width to be determines we find that we can displace 490 pounds of water with this pan but we end up with very thin walls, less than a tenth of an inch!

Volume =  $LLH - (L - 2D)^2(H - D) = 0.2L^3 - (L - 2D)^2(0.2L - D) = 1$ or  $1 = 200 - (10 - 2D)^2(2 - D)$ or  $1 = 200 - 200 + 140D - 28D^2 + 4D^3$ or assuming D is quite small we get:  $D = \frac{1}{140} ft$ 

Another way to look at the same problem is to calculate the required height for a side versus what the actual side height is and then to see when we get to the point of having more actual physical height than require height, namely the water is not flowing over the sides! We show this below.



Figure 131 Physical Height versus Required Height for Buoyancy

So we have no gotten the ship to float. We get enough volume of water displaced by making the steel thin enough. But we usually put fuel oil and guns and other stuff on the ship as well. We would then have to go back to the drawing board to determine how much more of a hull we would need to support these elements as well.

It becomes an iterative calculation. If we add too much we could face sinking. Remember Archimedes principle, the buoyancy force of the water equal the volume of water displaced. An the volume depends on how we have built the hull, and the buoyancy force must exceed the weight to have the ship float. If the weight of the ship increases then the buoyancy remains the same and there is a point that the ship will sink.

How could that occur, well simple, you spring a leak, and water fills compartments where the sir, which weighs nothing was, and then the weight of the ship increases and with fixed buoyancy due to the hull shape we reach that magic point, sinking.

This is the problem that Captain Nisewaner faced at Surigao, he was taking water from the shells from the Denver. There was a point when he would exceed the Archimedes point and sink. Thus the actions of the crew of throwing anything and everything overboard.

There is another factor as well. That is the factor of stability, a ship listing or having an angle of tilt. A ship has an interesting characteristic. If it is tilted it has a self stabilizing character, within limits. It is like a fishing bob, tilt it and it bobs up again in the upright direction. Tilt a row boat and it will right itself. Why does this occur and why was it useful for the Grant and when can it go wrong?

The hull of the ship has two forces acting on it; one is the downward force of gravity, all of the stuff on the ship. This equals the sum of all of the stuff on the ship, wet or dry. If there is a leak then the weight increases by the amount of water taken on. The second force is the buoyancy force which is simply the weight of the amount of water displaced. Buoyancy forces upwards

and weigh forces downward. They balance, otherwise the ship would rise or sink until a stable point is reached; nature really does like stability and the stable point of nature may not be what we want.

So these two forces in a benign state appear as in the Figure below on the ship. A force we call G, the gravity weight forces, are above pushing downward and there is a force B, called the buoyancy supporting forces resulting from the water pushing up on the hull, below and pushing upward. In this state everything is just fine. The forces align and they are equal. The result is a stable ship. But we know that things never stay that way.



Figure 132 Stable Gravity and Buoyancy Forces

Now we assume the ship tilts or rolls a bit. What happens. First the gravity force stays put and it remains along and on the line it was on except it remains pointing downward. Same value, same point but it always points downward, this a rotation in the direction of G. The buoyancy force actually moves its location. It rotates in a circle with a radius centered at a point called M, the metacenter, and goes from B to B'. The metacenter concept is critical.

This creates a torque or twist. There are two equal forces, G and B, and they are now not aligned but are offset. It is like a long handled wrench on a rusted bolt, we create a torque which is forcing a "righting" of the ship. The ship is naturally stabilized. It rolls, and as long as the weights, forces and geometry are correct it can right itself automatically. That is why ships work well at sea most of the time. The torque or twisting is a critical concept. If we twist to the direction opposite of the roll then the result is that the ship "rights" itself. If we twist in the opposite direction, then we sink!



Figure 133 Ship Roll and Positive Torque to re-position: Stable

However this self righting does not always work. There are times when a twist or turn results in a catastrophic result. The example below demonstrates this process. Here the center of gravity is higher than the metacenter. When that occurs and the ship rolls, the torque is now in a direction to make the sip roll even more! That means the ship sinks.

In the Grant at Surigao this is what was happening. The ship was rolling and it was taking water. In Hamill's head and in Nisewaner's head, and more than likely in Lyons as well, they could see more weight, a small metacenter resulting from loading below decks with water, and the G point going up, the M point going down, and when M falls below G, the ship goes unstable. This is not a metaphor and fact. The men on the ship had to accomplish two tasks; stop the water and get rid of as much stuff as possible. There was no M, G or B meter on the ship, the men could just guess knowing full well what the physics of the situation were.



Figure 134 Unstable ship roll

The above simple physical analysis shows two simple things: first, what keeps a ship afloat, and second, what can sink a ship. Sinking a ship is the result of simply one of two things.

First, the buoyancy force no longer exceeds the weight. This can occur by taking on water and thus getting the gravity force heavier or greater than buoyancy force. The result is the ship just sinks.

Second, the ship tips over due to instability. This can occur in a variety of ways. But simply, it occurs when the center of gravity goes above the metacenter, or if the list exceeds the critical list point, the one where there is no longer a righting moment or torque available. The metacenter can change position as can the center of gravity. As the ship takes on water, the center of gravity may start to drop, which is good. However the metacenter drops more quickly, which is bad. Remember that the ship becomes unstable when the center of gravity is higher than the metacenter.

Every captain has the maximum list number for his ship written in his brain. Taking a few shell hits, taking on water, and starting to list creates in the captain's head a set of simple calculations which tells him how bad off things are. He can visualize the G point dropping and he can also visualize the M point dropping even faster. He knows that he must keep M above G!

The Grant was lucky on that count, it managed to stay afloat long enough to get patched and pumped.

But there is also a second issue of concern, That is the issue about taking a destroyer into heavy seas. The classic story of Halsey taking his fleet into a typhoon after Leyte and losing several ship and hundreds of men is an example of not truly understanding what a bad situation a destroyer can be in high seas<sup>201</sup>. The destroyer and list 23-30° but not much more, then it goes all the way over. In a typhoon, there is a large sea state number and thus listing can become critical. The Grant passed through several of these events.

The following Table depicts the sea state values<sup>202</sup>. Destroyers were designed for speed and agility, not for functioning in the high seas. A storm can result in a sea state 5. That is an average of 10' waves, higher than the sea to deck height of a destroyer. Also it is only a 25 knot wind. A typhoon, hurricane, or even a good storm at Cape Hateras can hit sea state 7 with no problem. That is a 60 knot wind, sustained, and almost 30' wave heights, that is three times of more greater than the deck to sea level for the Grant. Such a condition is akin to lifting the ship up and throwing it down 30 feet!

Table 9 Sea State Values			
Wave Height (ft)	Wind Speed (knots)	Wave Period (sec)	
0-0.3	0-6	-	
0.3-1.6	7-10	3-15	
1.6-4.1	11-16	5-15	
4.1-8.2	17-21	6-16	
8.2-13.1	22-27	7-17	
13.1-19.7	28-47	9-17	
19.7-29.5	48-55	10-18	
29.5-45.5	56-63	13-19	
>45.5	>63	18-24	
	Table 9 Sea   Wave Height (ft)   0-0.3   0.3-1.6   1.6-4.1   4.1-8.2   8.2-13.1   13.1-19.7   19.7-29.5   29.5-45.5   >45.5	Table 9 Sea State ValuesWave Height (ft)Wind Speed (knots) $0-0.3$ $0-6$ $0.3-1.6$ $7-10$ $1.6-4.1$ $11-16$ $4.1-8.2$ $17-21$ $8.2-13.1$ $22-27$ $13.1-19.7$ $28-47$ $19.7-29.5$ $48-55$ $29.5-45.5$ $56-63$ >45.5>63	

To better understand the impact of the sea state on a destroyer it is important to understand how a ship like the Grant can bounce around. It has six degrees or types of motion. Namely:

- 1. Surge: The sudden movement forward and backward. This is like skating on ice. A ship like the Grant could skip or surge across very heavy seas.
- 2. Sway: This is sideway skipping.
- 3. Heave: This is the up and down motion, like flying in a plane and hitting an air pocket. You just drop in most cases, and this is a sudden g change and you feel your insides drop as well.
- 4. Roll: This is motion around the center axis of the ship along the keel. You can see the rolling.
- 5. Pitch: This is the bow going up or down. The flipping motion of the ship as it bumps along the sea.

<sup>&</sup>lt;sup>201</sup> See Drury, Halsey's Typhoon.

<sup>&</sup>lt;sup>202</sup> See Gillmer, Naval Architecture, p. 259.

6. Yaw: This is a back and forth motion as the ships goes left and right.

As stated in a typhoon, the sea state is frequently 8 or even higher. Remember the side of the Fletcher class is less than 10 feet, most of which is below water on a calm day. The waves are 40 to 50 feet, and the ship just slams up and down. There is tremendous pitch and roll, and a great deal of surge and heave. The forces on the hull are tremendous.

## 12.2.2 Power Systems

Power systems on destroyers were critical to their unique capabilities. They needed rapid speed, ease of maneuverability, fuels efficiency, and must be readily maintainable. The destroyer power system was based on dual steam turbine engines, each powering a separate propeller or screw. These systems were highly complex and required the seamen to work in the bowls of the ship in temperatures exceeding 130 degrees Fahrenheit. The heat and work load could be extreme but the challenge of dealing with this complex system was as challenging.

Destroyers need power, reliability, and the ability to go over a wide range of speeds ate a moments notice. The power plant of a destroyer is the turbine, the steam turbine. The steam turbine is well suited for the largest power plants at that time. It has high efficiencies, long times between maintenance, long life, and can use relatively inexpensive fuel, plain old fuel oil. It had two disadvantages; (i) it required a lot of space, it used most of the below decks of a destroyer and was very heavy, (ii) it required a large crew. It also required a low efficiency stern turbine to go in reverse at slow speed.

The Fletcher class destroyer had a dual power system which allowed the ship to reach speeds in excess of 35 knots, almost 40 mph or greater and to be able to survive in seas which reached sea state 5 or greater, the worst typhoons the Pacific had to offer. The waves in such storms were several times the height of the ship. the ship went under the waves and through them, never tipping or sinking.

The way the overall power system worked was quite simple. There were four elements. Clean water was required, then a boiler was needed to convert the water into a high pressure supersaturated steam and then the steam was used to turn a large turbine engine which rotated the propellers and finally the steam was condensed and returned to the boiler to be converted back to steam and the process would continue.

The turbines each generated 60,000 horse power, the equivalent of 300 Cadillacs for each turbine. The boilers were extremely complex and required continuous monitoring. Steam pressure must be maintained. The turbines were the most advanced design also requiring continual care. The two, the boiler and turbine, were linked by the high pressure steam lines, the blood flow between them being the superheated steam, under 600 pounds per square inch or more pressure. The superheated steam could melt and dissolve anything in its path if it got loose.

First clean water must be available to create steam. The water was generated by an evaporator which took the sea water and by a process of heating and removing the steamed sea water it

obtained pure water and left behind the salts in the sea water. The evaporator also generated water for the crew, drinking and bathing. But its first and most important tasks was generating the water for the engine.

The power system is shown in the Figure below. It consists of an evaporator, then the water generated is stored in a water storage compartment. Some is for the engine and some for the crew. Then the water flows into the boiler. The boiler was powered by No. 5 crude oil, a simple and efficient fuel which took the water and created steam, a special type of steam, supersaturated and very high pressure. The was all vapor, no liquids because the temperature is so high. The high temperature was chosen so that the power developed in the turbine could be done so in the most efficient manner possible. The efficiency of an engine is determined by the ratio of the difference between the high and low temperatures, and the higher the high temperature the greater the efficiency. This leads to the use of supersaturated steam. That is the good news. The bad news is that supersaturated steam belongs in is pipes, and if it escapes it can cut apart whatever it touches like a sharp scalpel, it sears and slices through anything, especially human flesh. The steam is at over 1,000 degrees Fahrenheit and under forty times normal atmospheric air pressure.



Figure 135 Details of the Power System in a Destroyer

The steam from the boiler was then fed to the turbine blades, the steam forces the blades to rotate a significant speed and the energy transferred from the steam to the blades is then transferred from the blades to the props at the stern of the ship. The turbine turns one screw. To turn both screws both turbines must be operating. The turbine blades must be clean, this the need for clean water, and they must be repaired is there is the slightest problem, failure to do so would result in catastrophic failure of the turbine. This high pressure turbine was a dramatic advance for its time,

it allowed high speed, and maintained that speed for sustained periods. There was no internal combustion engine like a car or even a torpedo boat. The engine was efficient and could be relied upon for long periods. The use of steam had advantages and disadvantages, but the turbine was an excellent engine for this purpose.

Machinery in the engineering plants of the DD445 and DD692 Class destroyers is so arranged that the forward fireroom and the forward engine room can be operated together as a completely independent engineering plant, as can the after fireroom and after engine room. This means, then, that all machinery necessary to the operation of the main propulsion plant must be duplicated in each engine room and fireroom, and that means must be provided to positively separate the systems in the two plants. The same thing can be said of the machinery necessary to the operation of the ship's service generators.

Various auxiliary units, not directly related to the operation of the main propulsion plant or the generating plants, are located throughout the engineering spaces wherever space is available. The following sketches show the relative location of the units of machinery in the engineering spaces. In order to properly show- this arrangement, it has been necessary to break each plant down into upper and lower levels. It will be noted that there are considerable differences between the arrangements of the DD445 Class and the DD692 Class. This by no means indicates any difference in the operating principles of these two plants. A comparison between the two will show that the machinery necessary to the operation of the main plant of both classes is exactly the same.

The engine room was thus composed of really two separate rooms; boiler and engine. In addition there were two such sets of rooms, one fore and one aft. The high pressure steam went between the two of them. The pipes containing and maintaining that stem also bridged both rooms, covered for protection bit not secure from attack if such were to occur. This would become a potential fatal flaw in the design as is seen latter. The layout of the destroyer power system is depicted graphically in the figure below.



#### Figure 136 Destroyer Power System Locations

The flow of the fluid, steam and water, which propelled a destroyer power system is depicted below. It starts in the generation where the superheating is also performed, then goes to the turbines and with them their various gearings depending on speeds requires, then down through the condensors and into the feed pumps and back to the boilers or generators. It is a cycle that is repeated over and over. The demands for fresh water are critical. As we saw in the tale of the Grant, sea water can be used but it will pit the turbines quickly and burn out the engine. Fresh water is essential.



Figure 137 Details of Power Plant (Boilers and Turbines)

The DD445 class destroyers have boilers of two different designs; i.e., the Babcock & Wilcox type boiler having a convection superheater, and the Foster Wheeler "GUEST" type boiler with a radiant superheater. DD472-481, 581-597, 649 and 662-665 have the Foster Wheeler "GUEST" type boilers, while all other vessels of this class have the Babcock & Wilcox type boilers.

The boiler on the Grant is shown below. It was a very large and complex device which required a great deal of care and feeding. Pressures had to be balanced, flows had to be regulated, temperatures had to maintained, and a watch on the performance and status was continual. This was not a boiler for a home heating unit or even an apartment building. This boiler created superheated high pressure steam, steam which was sent to a massive set of turbines to power the props of the ship. The task of manning the boiler especially in heat and more especially in times of a battle were extremely intense. It must be remembered that it was in Boiler room 1 that many of the Grant crew were lost. A shell hit the high pressure superheated steam line, it became a death ray for anyone in or near its path. It was sudden, deafening, and was lethal.



Figure 138 Foster Wheeler Guest Boiler on DD 649

The valves on the Boilers are shown below to give a measure of the complexity of the system. A Watertender in the boiler room was like a cardiovascular surgeon, he is watching the flow of water, steam, pressure, temperature, and he must have all of these flows and other elements well inside his brain, so that when something happens he acts, not reacts, and gets the problem solved. This was a complex system which relied heavily on the competence and capabilities of them men responsible for its operation.



Figure 139 Foster Wheeler Boiler Controls

The men in the engine rooms had to be trained to do many tasks in what could be a hazardous environment even during safe conditions. The boiler had to be fired and maintained. This meant that the fuel had to be controlled and that the stem brought to the desired high pressure level. The pressure had to be carefully watched.

This type of engine could not start quickly from a cold start, steam and high pressure steam was needed. If for any reason a boiler was down and stem lost then the whole complex failed and disaster was just around the corner. This the boiler man was in a critical position. In earlier wars he may have had to shovel coal into a lower pressure boiler, in this War he had the supersaturated steam boiler connected to a turbine, such a system was a harbinger for nuclear subs and aircraft carriers, they all used a similar method except replacing nuclear heat for the oil heater.

The turbines were not simple motors as one would see in civilian life. Far from it. They were sophisticated turbine motors running at high speed powered by the supersaturated steam. They were equivalent to what would be the jet engines just after the war, but powered by steam. The had to be in balance, no chips, corrosion, or any imperfection which could reduce power or even worse cause blade fractures and dislocations. A blown blade could slice through walls and cause its own catastrophic damage.

The main propulsion unit for each of the plants consists of three turbines; namely, the cruising turbine, the high-pressure turbine and the low-pressure turbine. In the casing of the low-pressure turbine there are installed two astern elements. In all ships of both the DD445 and DD692 class the cruising, high pressure and astern elements are impulse turbines. The cruising and high
pressure are pressure-velocity compounded, and the astern elements simple velocity compounded.

Some ships of both classes have low-pressure turbines which are pressure-compounded impulse turbines and some have reaction turbines. Westinghouse installations include the low-pressure reaction turbines while those by General Electric and Allis-Chalmers have the impulse low-pressure turbines. Arrangement is such that steam can flow into the cruising turbine, thence to the high pressure and finally to the low pressure, or so that the cruising turbine can be entirely bypassed and steam admitted directly to the high pressure.

Ethaust to Low PRESSURE TURBINE VALVE Status To Low PRESSURE TURBINE VALVE Status To Low VALVE Status To L

The following Figure is a simplified diagrammatic sketch of a section of the high-pressure turbine.

Figure 140 Steam Turbine Design (US Navy Document)

The space shown on the right of the drawing (labeled valves Nos. 1 and 2) is the steam chest of this turbine. The steam enters here through the two nozzle control valves, passes through the first-stage nozzle, and increases in velocity due to the drop in pressure across the nozzle. While travelling at high velocity it impinges upon the first row of blades and due solely to the velocity of the steam, it drives these blades around carrying with them the high-pressure rotor.

When the steam leaves this row of blades there is still sufficient velocity remaining to warrant its use in a second row without restoring the velocity by another pressure drop. In order to accomplish this a row of stationary blades, attached to the turbine casing, is located as shown between the first and second rows of moving blades. These stationary blades reverse the direction of flow of steam so that it strikes the second row at approximately the same angle as the first row.

In the second row of moving blades most of the remaining velocity is removed. From here the steam is led to a second-stage nozzle carried in a diaphragm attached to the turbine casing. The steam is expanded through this nozzle, and increases again its velocity, which is removed in a single row of moving blades on the discharge side of the nozzle. After each succeeding row of blades steam is passed through another nozzle to restore its velocity. pressure being dropped in each stage until the steam finally exhausts from the last stage of the turbine at a much lower pressure than when it entered. In the case of the high-pressure turbine, the steam passes through 12 stages in all .



Figure 141 Steam Turbine

## 12.3 Weapons Systems

The canons of the man-o-war or even of the World War I ships were replaced by integrated command, control and communications systems and computer controlled guns. The irony of all of this is that the men who operated all of these systems now look at computers in their old age as strange things that they could never understand. In reality it was these very men who used and deployed computers in life threatening environments for the first time in human history. This was in many ways the first real video game, except it was no game and if you lost, you really lost!

The destroyer is designed for fast but lethal attacks in a divers set of wartime environments. It is designed to deal with aircraft, submarines, other ships, land support, and whatever else may come along. It may be used as a picket ship where it has the duty to guard at a distance an aircraft carrier, it may act as a torpedo launcher, attacking enemy vessels, and it may play the role of antisubmarine warfare vessel searching out enemy subs and attacking with its antisubmarine weapons such as depth charges.

All of the weapons on a destroyer in World War II were supported and/or facilitated by what at that time was high tech support systems.



Destroyer Weapons Systems Command, Communications and Control

Figure 142 Weapons Systems Elements and Architecture

#### 12.3.1 Sensors

The Destroyer had three types of target sensors; radar, sonar, and the Director. Radar is generally thought to be the most prominent. However, one frequently finds that for a Destroyer there are many who neither had a radar technician nor did they have the opportunity to even turn the radar on.

## 12.3.1.1 Radar

In the late 1930s many nations were performing research in the area of radar. Radar is something that at the beginning of the twenty first century is well known but at the time of the beginning of World War II it was still in its infancy. The idea was simple, send a radio pulse out in some direction and measure the time it take to get back and one can then determine the distance. If the antenna sending the pulse is directional, that is has a narrow beam, then one can also find its azimuth and elevation angles by determining where the antenna was looking when the pulse was received.

It is a real simple problem, except. First, the radar had to work at very high frequencies. Just like tuning a radio or television, we select frequencies, and the higher the frequency the better. The reason for choosing higher frequencies if that small antennas are required and shorter pulses are needed. Thus better angles can be determined and more accurate distance can be measured.

Namely one can determine where the target is, and in some cases for high enough frequencies one could even "see what the target looked like".

Namely with high enough frequencies one could "paint" the target and see if it is a battleship, carrier, or even one of the friendly ships. Older radars did not permit this. That fact will become a deadly fact when the Grant reaches Leyte. Older radars could not distinguish the ship type of friendlily ships. Their Captains could then fire on their own ships, which they did.

The first set of solutions to the radar problem were solved by the British. The British developed a device called the magnetron. It was a small metallic device with small cylinders cut out in it which acted as a resonator for the frequencies which needed amplifying. It was like a whistle but for radar signals. One knows how a whistle works, one blows in one end, and the whistle has a certain round geometry so that certain audio frequencies are amplified, namely the whistle frequency, and one hears the whistle noise. We all know how this applies in a symphony orchestra with the wind instruments. The magnetron brilliantly did this for radio waves, allowing very high frequencies, and by definition very small wavelengths, to be amplified.

The US Government in its wisdom set up a special development project effort at MIT called the Radiation Laboratory, a cover name chosen to let spies think it was some other war development effort. However at the MIT facility was located on the Cambridge campus just across the Charles River from Boston. It was located in a collection of wooden buildings, three floors high and with four wings of long hallways. The staff were composed of some of the brightest people of their times all focused on solving the problems of detecting, tracking and destroying enemy targets using electronic means. Thus radar was the corner stone of the effort but the work comprised many more efforts.

At the end of the War the results of the work at the Rad Lab were memorialized in the classic series of books called the Rad Lab series, a set of reference documents whose importance is still quite useful even after sixty years after their publication. Unlike the atomic scientists who were forbidden to utter a word the MIT group did just the opposite, they set off another revolution by publishing their results and then all disbanding and going back to industry.

Radar used the generation and transmission of extremely high frequency pulses to send out from an antenna and to get reflections from targets and then using this information to ascertain certain information about that target. New generations of this equipment were issued almost monthly and upgrades were a continuous process as the developers themselves learned more. The Grant was one of many ships with radar installed.

The Figure below depicts the radar on the mast of the Grant. There were in reality several such radars each for a separate purpose. One was for long range detection of aircraft, one for integrating with the Director and fire control system and one for surface scanning.

There were generally three types of radar systems on the Grant. They had some upgrade after the repairs at Mare but we will lump them together not making the notice of the change. They were:

Search: The search radar was the SG system. This is a small mast mounted system which rotated. It had a small parabolic dish and had a PPI display in the conn. It was the day to day search radar system. It was actually so well designed and operated so well that it was kept through Korea. It allowed the ship to "see" what was out there.

Fire Control: The fire control radar was the Mark 4 radar. It was combined with the optical director and was used to assist in the targeting of enemy targets.

Long Range: The long range radar, SC radar, which allowed for detecting aircraft and other targets at very long ranges. The antenna was mounted on the mast at the top.

The following Table depicts the details on the radars in considerable detail.

#### Table 10 Comparison of Radars aboard a Fletcher Class late 1944

Factor

SG Search Mark 4 Fire Control

SC-2 Long Range Search

Installed







Systems

Description



Microwave *search* set installed on destroyers and larger ships to search for enemy surface ships, to coordinate attack by surface vessels, and to aid in navigation. Medium wave *fire control* for dual purpose batteries. "A" type range indicator and two pip-matching train and elevation indicators. Search radar provides target designation. Equipment has provisions for IFF connections for identification of targets.

Mark 4 is used on the allpurpose directors Mk. 33 and Mk. 37 with 5-inch guns. It furnishes elevation, bearing, and range, though at elevation angles below  $10^{\circ}$  the elevation angle is likely to be in error. Set is useful in getting a solution into the computer before the target gets into the range of visibility. Mark 12 will be a higher-powered set which will replace the Mark 4 in the Mark 37 director (square-backed type).



*Long wave search* sets, installed on destroyers and larger ships to search for planes and surface vessels and for control of interception.

All sets have an "A" scope, provision for IFF connections, and work with a gyro-compass repeater. SC-2 and SC-3 also have PPI scopes, remote PPI's, and built-in BL and BI\* antennas.

F f i

Uses

Furnishes range and bearing on PPI and "A" scopes. SG has provisions for IFF (identification) connections, and equipment is being supplied for connecting to remote PPI's.

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Factor	SG	Mark 4	SC-2
Performance	Search Reliable maximum range is 15 miles on large ships; with antenna height of about 100 feet. Range accuracy is ± 100 yds. Azimuth accuracy: ± 2°.	<i>Fire Control</i> Reliable maximum ranges for mark 4: 35,000 yds. on PBY at 5,000', 16,000 yds. on destroyers, 25,000 yds. on battleships. Minimum range, 1,000 yds. Range accuracy, $\pm$ 40 yds. Bearing limits, 720° for director train. Bearing accuracy $\pm$ 4 mils. Elevation limits, +110° to -20°. Elevation accuracy, (above 10°) $\pm$ 4 mils. For Mark 12, maximum reliable range on PBY is 40,000 yds. Range accuracy will be $\pm$ 25 yds., accuracy in elevation (above 7°) and reading will be $\pm$ 2 mils.	Long Range Search With antennas at 100', SC and SC-1 (without preamplifier) have a reliable maximum range of 30 miles on medium bombers at 1,000' altitude. With preamplifier, SC-1's range is extended to 75 miles the same as that of SC-2 and SC-3. Range accuracy of SC is $\pm$ 200 yards; later models have an accuracy of $\pm$ 100 yds. bearing accuracy of SC and SC-21 is $\pm$ 5°; of SC-2 and SC-3, $\pm$ 3°. There is no elevation control on any of the sets, but height can be estimated roughly from positions of minimum signal strength.
Transportability	Complete shipment includes spares and testing equipment, and is crated in 15 units weighing about 4289 lbs. Largest package is 13'4" x 12" x 10" and weighs 359 lbs. Heaviest package (1425 lbs.) is 28" x 41" x 80".	Radar is packed in 7 or 8 cases weighing 3800 lbs., plus crated antenna mount. Testing equipment and spares for one year are included.	Shipment includes spares for each set. If separate generator is needed, it is included in shipment. Not air transportable.
Installation	SG has 5 components weighing approximately 2200 lbs. Heaviest unit (1180 lbs.) is the transmitter-receiver $73^7/8$ " x 34" x 22 <sup>3</sup> /8". Antenna, which weighs 350 lbs. with pedestal and measures 44" x 49 <sup>1</sup> /2" in diameter, should be mounted as high as possible, preferably more than 100 feet above water and above adjacent superstructure.	Mark 4 will have the control-indicator, range unit, and two train and/or elevation indicators mounted in the director. Mark 12 installation will be similar, but there will be four train and/or elevation indicators in the director.	Both SC and SC-1 have 5 components weighing a total of 1800 lbs. SC-2 has 6 components weighing a total of 3,000 pounds. Weights and dimensions of antenna assemblies are 450 lbs. 6'11 <sup>1</sup> /2" x 8'6" for SC and SC-1; 478 lbs. 4'6" x 15' for SC-2 and SC-3. Antennas should be mounted as high as possible, preferably 100 feet or more, above other superstructures.
Personnel	One man per shift is minimum requirement.	One radar range operator and one maintenance man are required in addition the director crew.	One operator per shift is minimum on all 3 sets.

Factor	SG	Mark 4	<i>SC-2</i>
	Search	Fire Control	Long Range Search
Power	Primary power required is 115 volts, 60 cycles: 2.8 KVA. Source is ship's main line	Primary power required is 2.4 KW, 115 V, 60-cycle single phase, supplied by ship's generators.	SC and SC-1 require primary power of 1500 watts at 115 volts, 60 cycles. SC-2 and SC-3 require 2500 watts at 115 volts, 60 cycles. All sets use ship's power of 115 volts, 60 cycles; transformer, if ship's power is 440 volts AC or 220 volts AC; motor generator if ship's power is DC

The Figure below shows the long range search radar the SC after repairs at Mare Island on the Grant. The SG radar is just below the SC and is the solid rotating parabola radar. This is the radar that the monkey would climb up and swing around when the crew acquired the friendly creature. The output power of the SG and the SC were fairly high and one would wonder after the fact why there was no baked monkey after the times he apparently spent up there. It is curious to note that at this time no one yet knew the microwave oven capabilities of these radars.



Figure 143 DD 649 Mast and Radar post Mare Island Repairs

The figure below shows the Mark 4 radar along with the Mark 37 director. It further shows the crew required to operate this director unit. The optical range finder is what is seen jutting out the edge of the unit. The antenna could be adjusted for azimuth and elevation to fine tune in on any

target. The optical director was of better accuracy but the Mark 4 permitted night targeting if the target had an identifiable radar echo.



Figure 144 Mark 4 Radar and Mark 37 Director

The following picture is an earlier one of the Grant pre-Mare repairs. The difference in the mast radars can be seen. However the Mark 4 is clearly shown behind and on top of the flying bridge.



Figure 145 Layout of a the Grant pre Mare Island Repairs

The Figure below is the Grant pre-Mare and the mast and radar systems can be seen clearly. As in the previous picture one can readily see the SC radar at the top of the mast, there is a small blip below the SC which is the SG radar and the Mark 4 for the Director is seen just above the bridge.



Figure 146 At Sea, The Radar System is on the Mast of the Grant pre Mare Island repairs.

On the bridge there was the SG PPI scope showing what was in the environment of the ship. The PPI for the SG is shown below.



Figure 147 SG PPI Scope on the Bridge. It is on port side.

The story of Ray Gelgur being almost electrocuted by his trying to fix the scope is emphasized by the large sign on the scope as it appeared after the War as shown below. The radar system had extremely high voltage and could cause sever shock and death. The reliability of the SG was

generally good. On some destroyers if the XO was not fully capable of using the CIC then frequently the SG was disregarded. This became less of a problem as the war went on.



Figure 148 SG PPI Scope and Danger of High Voltage

Radar became a significant element in the destroyers ability to perform. This was particularly the case as the battles became more and more night actions and in aggressively supporting landings. The radar became an integral element along with the CIC. Knowing what was out there and having its presented in a coherent and cohesive manner made a dramatic difference in the effectiveness of the destroyer fleet.

In contrast to the Grants Fire Control Radar the Battleships had their own. These are shown below.

Table 11 Battle Ship Fire Control Radars			
Factor	Mark 3	Mark 8	
War Status	Used by US Battleships, introduced	Used by US Battleships, introduced	
	in late 1941	in 1942-43	
Director	Mark 38	Mark 34	
Installed	Mounted on Main Battery Directors	Mounted on Main Battery Directors	
Purpose	Fire Control	Fire Control	
Power	15-20 KW	15-20 KW, later 20-30 KW	
Wavelength	40 cm	10 cm	
PRF (Pulse Repetition Frequency)	1,640	N/A	
Transmitter Dimensions	12 x 3 feet (3.66 x 0.91 m)	10.2 x 3.3 feet (3.1 x 1 m)	

<i>Factor</i> Tracking Range	<i>Mark 3</i> 40,000 yards (37,000 m)	<i>Mark 8</i> 40,000 yards (37,000 m) on Battleship sized target
Range Accuracy	40 yards (37 m)	15 yards (5 m)
Bearing Accuracy	2 mils	2 mils
Resolution	400 yards (370 m) and 10 degrees	400 yards (370 m) and 10 degrees
Notes	First USA set to use lobing. 16" (40.6 cm) shell splashes could be ranged at 20,000 yards (18,500 m).	Scanned via pulse-switching. Mark 8 mod 0 could spot 16-inch (40.6 cm) splashes out to about 20,000 yards (18,300 m) and the improved Mark 8 mod 3 could reliably spot 14-inch (35.5 cm) and 16-inch (40.6 cm) fire out to at least 35,000 yards (32,000m)
Description	Medium wave fire control for main batteries. Type "A" range indication and pip-matching for train. Has provisions for IFF connections, for identification of targets. Search radar designates target area.	Microwave fire control for main batteries. "A" and B indication. Search radar provides target designation. Equipment has provisions for IFF connections, for identification of targets.
Uses	Furnishes bearing and range to the mark 34 and Mark 38 directors for guns 6" or larger. It is not readily suitable for spotting the fall of the shot, except in range.	Mark 8 is used with the gun directors Mark 34 and 38. It provides both bearing and range. It permits spotting in range and deflection it being possible to detect shell splashes. The equipment is for use with guns 6" and larger.
Performance	Reliable maximum range is 16,000 yds. for destroyer targets, 28,000 for battleships; minimum range is 1,000 yds.; range accuracy $\pm$ 40 yds. Azimuth accuracy is $\pm$ 4 mils for 6'x6' antenna or $\pm$ 2 mils for 3'x12' antenna.	Reliable maximum range (on cruisers with antenna 120 ft. above water): 40,000 yards. Reliable minimum range: 500 yards. Range accuracy: $\pm$ (15 yards + 0.1% of range.) Bearing accuracy: 0.1° to 2 mils. Elevation limits: +55° to -20° for level; no cross-level.
Transportability	Radar is packed in 7 or 8 cases, weighing 3700 lbs., plus crated antenna mount.	Shipment includes spares for a year and testing equipment. Complete shipment is packed in 47 boxes, weighing (spares included) a total of 14 485 lbs
Installation	Of the seven components, the control-indicator, range units and train indicator are installed in the director. Equipment has either 3'x12' or 6'x6' antenna.	The 13 components of Mark 8 are installed in or near the director, as shown in the above drawing.

Factor Personnel	<i>Mark 3</i> One range operator and one maintenance man per set, in addition to regular director personnel, are required.	<i>Mark</i> 8 Minimum personnel is 1 operator and 1 maintenance man, plus director crew.
Power	Primary power required is 2.2 KW, 115 V, 60-cycle single phase, derived from ship's generators.	Primary power required: 4 KW, 440 V, 3 phase, 60 cycles. Source of power is ship's supply.

The battle line composed of the six battleships were evenly split between Mark 3 and Mark 8 radars. The battleships with the Mark 8 did most of the shooting since they could acquire the target faster and had better accuracy. This would also explain why the Pennsylvania took so long to fire and why for the Grant it was the best response for signalling.

Table 12 Battle Line Ships and Fire Control Radars			
<b>Battleships</b>	Radar and Fire Control <sup>203</sup>	Radar and Fire Control	
Mississippi - BB 41	SRa/SK, SRa	Mark 3	
Maryland - BB 46	SK, SRa/SRa	Mark 3	
West Virginia – BB 48	SK /	Mark 8	
Tennessee – BB 43	SK/SC-2	Mark 8	
California – BB 44	SK/SP	Mark 8	
Pennsylvania - BB 38	SRa/SRa, CXAM	Mark 3	

#### 12.3.1.2 Director

<sup>&</sup>lt;sup>203</sup> CXAM: Installed 1940-1 on some older US battleships, later removed.

SC: rectangular antenna with a greater width.

SR : Small sized but longish antenna shaped as an inverted V, installed in older battleships, some arrangements with two antennas were known.

SG: Small sized navigational and surface search antenna. Small profile resulted in little mention when ship recognition addressed.

SK: Large, rectangular, elongated antenna with headpiece. Mainly used on carriers, destroyers and escorts. Rarely used on battleships.

SK-2: Large, round parabolic antenna with wide open work metal grating. Replaced SK in most battleships, cruisers and aircraft carriers by end of war.

SP: A smaller sized round parabolic antenna with closer grating, introduced in last part of war as secondary antenna system. Always carried in after position.

SG-6: One of the first post war antennas. Installed in limited numbers only and soon replaced by SPS-6

SPS-6: One of the larger air-search antennas of the SPS series. Introduced in post war years, installed on numerous ships including Iowa class which were the only battleships to be so equipped.

SPS-8A: "Highfinder" surveillance radar system. Installed on Iowa class around 1950, replacing SP. Older version installed on AG-128 Mississippi in 1949 and some aircraft carriers

SPS-10: Carried forward with SPS-6 radar. Large rectangular system along with the ECCM frames. SPS-49: Surface Search radar.

Fire control systems were undoubtedly the most complex systems on board a ship. The problem that a fire-control system solved was an extremely complex problem of spherical trigonometry, estimation, identification, and prediction.

Simply put where do I fire the gun so that by the time the shell gets to a position the target has moved there also. To make this even more complex how would I also incorporate the movements of the ship into the equation. Thus ship, target, shell, gun, all must come together at the same time. In the olden days, one just got close and fired guns. In this environment the gun firing was in may cases thousands of yards and in many others miles away. A small error over a mile multiples many times. For example to hit a battle ship which is 1,000 feet in length at three miles distance, namely 15,000 feet, one must have an angle accuracy of 3 degrees if hitting it broad side or 0.3 degrees if hitting it straight on. That of course assumes one can drop the shell at exactly 15,000 feet range. That also has its own uncertainty.

The fire control problem can be understood by starting with a simple problem.

Consider a small boy with a sling shot. He wants to hit the side of a barn some 100 feet away. He can do three things with his sling shot. First he can pull the rubber sling back just so far. The more he pulls the sling, the faster the stone leaves the sling shot, or equally well the more energy the stone has. We know that the more energy the stone has when it leaves the sling the farther it will travel. So he must pull the sling shot back just so far, too little and it will not reach the barn and too much and it will overshoot the barn. In a destroyer the pull of the rubber sling is akin to the powder charge in the shell to be fired. More powder the faster the shell leaves.

Now the second thing the boy could do is slant the sling upward at an angle. If he points it directly up, straight up, it will go up until it looses its energy to gravity and then fall again, and right onto the head of the boy. Not a good angle for getting to the barn. If he shoots directly at the barn, with no elevation, then no matter what the initial speed, the rock will drop due to the pull of gravity and it will never reach the barn. The boy must select an elevation angle to just match the speed at the point of release of the stone so that the stone hits the barn at the desired spot. This is a simple application of Newton's laws of motion, but even in this case it starts to get complex very fast.

Now consider the third thing the boy must do; he must turn in the direction of the barn, he cannot hope to hot the barn if he is looking in another direction, he must be certain that the angle to the barn is directly in front of him. This is called the azimuth direction.

Thus the three things the boy must be careful of doing correctly is to have the correct speed, the correct elevation angle, and the correct azimuth angle. Three things he must "calculate" in his head. He could approach this problem by trial and error. He could try to aim correctly and then pull the sling back say three inches and take an elevation angle that "looks good" and let it go. Then if he undershoots he could increase or decrease the angle and try again. If he gets better he could continue to process until he hits the barn. This is the "hit or miss" school of fire control. Hopefully take a good guess and then iterate the process.

There are few problems with the hit and miss approach. The most important one is that frequently there were troops being supported in sea to ground fire. The troops had landed and were approaching an enemy position. The destroyer was in the position of providing fire support. They could not just try a solution and iterate until the go there. The second reason hit or miss failed is that is expended ammunition, and did so at a great rate. The third reason is that many times the target was a approach and attacking aircraft and that when a plane was attacking at a rate of 300 mph or greater you just did not have time for hit or miss, you had to get the target, because you had no time and because there were many other targets.

Now to make matters worse, the simple example of the young man and his sling gets complicated. The young man is now put on a moving swing and the barn is now a flying bumble bee, fleeting back and forth. And the young man has a case of hiccups. Now one must find how to aim and pull and hit the bee.

The fire control system in a Fletcher class destroyer such as the Grant was in many ways the first <u>electronic warfare system</u> ever deployed. It was a harbinger of what electronic warfare has become today. The seamen on the destroyers did not fully appreciate where they were in the development of new warfare systems, they were using their brains more that any warriors in the past. They were not just the oarsmen at Salamis, but each played an integral role in the fully integrated system. It consisted of the following four elements:

Director: The Director was an optical-mechanical device which allowed for the determination from a defined point on the ship of the targets range, azimuth and elevation. This meant that with a good Director and an experienced fire control man operating the Director the ship could at least fire where they should if they could see the target.

Stable Platform: This has also been called the "Stable Element". This was an imaginary platform or plane which was created by the use of a gyroscope. If one recalls a gyroscope from childhood, the spinning wheel of the gyro tends to exert a force if one tries to rotate it in any direction. The force tends to keep the gyro in an orientation which remains fixed relative to where it was when it started rotating. Thus, if we start a gyro rotating, and we move it we would not e force trying to send it back to the original position. If we have a gyro with three independent axes, we can measure movement in all three axes, namely pitch, roll, and yaw. If we put little sensors, called synchros, on each of the axes, we can measure the attempt to move them and we cane then control a platform or element to keep it in the same configuration it was in originally. This feedback type of system was used to create the Stable Platform or Stable Element.

Computer: The computer was at the heart of the fire control system. From the Director we could determine where the target was in range, azimuth and elevation. In addition if the target was moving we could estimate its velocity in all three parts as well, namely range rate, azimuth rate and elevation rate. This was sent to the Computer. The job of the Computer was to now tell the Gun where to point and how to fire to hit the target. Thus the computer had three jobs.

First, it had to know where the target was and where it would be. This job required that given the information from the Director it could project where the target would be when the gun fired so the gun would be pointing at the target. In a simple example if we had movement in just one

direction, and we knew the distance at one time and the velocity, then we could tell where the target would be at some future time. We could assume that it takes two seconds to fire the gun, and that the target is moving at 300 mph, or 440 fps, we would then aim at 880 feet ahead of where it is now. But it takes the shell a short while to get there as well, we have to factor that in as well. For example if the shell is going at 880 fps we then have to know where the target is not just two seconds from now but 2.5 seconds from now! All of these details must be kept by the Computer.

Second it had to know where the gun was really pointing at the time of the firing. The gun was on the ship. The ship was moving, it was pitching, rolling and yawing. It was bouncing all over. The system knew where the Stable Platform was, by use of the gyros. The system then had to determine where the gun really was and more importantly where it would be when it fired the gun. Therefore the gun had to have its own gyro tracker and it had to relate its position to the Stable Platform.

Third, the computer knowing where the target would be when the gun fired and where the gun was when the gun fired, it would have to tell the gun what azimuth, elevation and speed it had to be loaded at to hit the target. At that point the Computer fired the gun. Hopefully it would hit the target.

This complex set of information is shown below.



The were three elements in the fire control problem can be detailed even further.

The Director was an optical device which used simple trigonometry, at least for the fire control men on board. It is shown below. The optical director works quite simply. It takes an very good

set of optics and looks out at a target from two angles. One is a direct view and the other is a view with an offset. The offset view comes in via a mirrored glass which reflects the image to the viewer at the same time the viewer is seeing the direct image. When both images align, after adjusting the angle of the mirror, the system using a simple trigonometric calculation to determine the range. Azimuth and elevation are obtained from standard angle measuring devices as are used on engineers transits.

Director: Contains two identically aligned mirrored lenses. M1 and M2 are



Figure 149 Director Principles

The following Figure depicts the calculation which is made which results from lining up the target and its second image.



#### Figure 150 Director Operation

The following Figure depicts what this may look like as we change the angle of the reflecting mirror to determine what the line up angle should be and then determine it and use it to calculate range.





Step 3: Align images so they totally overlap, measure angle on right Mirror of Director.



**Figure 151 Director Alignment** 

Thus the director is a complex element. It contains both optical and radar elements. The optical allow for very high accuracy for daytime bombardment. This was what Marsh accomplished o Saipan and Tinian. He and his crew were probably the best gunnery crew, with fire control management, ever. The radar is primarily for surface warfare and at night. Its accuracy was not as good but it gave eyes to the ship in night battles.

The figure below shows the Director above the bridge on a Fletcher. Note that there radar above the director is NOT a Mark 4 but the Director is a Mark 37. Basically the Director is the same in optics but the radar is a Korean War radar unit.



Figure 152 Director on a Fletcher (Note: The radar is of Korean War Vintage)

The following Figure provides a fuller view of the bridge, flying bridge and the director in the rear of this.



Figure 153 Bridge, flying bridge, and Director looking aft with 5" gun.

12.3.1.3 Sonar

Sonar had evolved out of early sound detection in World War I. The sonar system was generally an active sonar device, one which sent out an acoustic signal and one then listened for a returning echo. or ping. To have a good sonar system one had to have the following elements:

Sound Source: This was a device which was attached under the ship which could generate a loud ping at a reasonable frequency with enough power to propagate a reasonable distant and be reflected and be audible upon return.

Sound Receiver: A device which could hear the sound as it returned to the ship and could convert that to an audible and possibly visual signal useful for targeting submerged targets.

Adjustable Focusing: A means and method to "point" the sonar at a specific point so as to identify the "location" of a target to a reasonable degree of accuracy so as to be amenable to the use of the weapons on board, in this case the depth charges. A depth charge had to at least get close to a submarine. Thus the sonar pointing had to be able to tell about how far away, how deep and at what relative direction the target was.

## 12.3.2 Reference The Stable Element

The stable platform or element was key to many of the sensors as well as to many other elements of the ship, including such simpler elements as the gyro compass. It is the second element of the overall CCC system design.



The stable platform becomes an integral part of the overall fire control system. This is depicted below. The gyro creates a stable platform which is the reference plane. The computer, to be

discussed next, communicates with the incoming data and the outgoing commands to the weapons systems.

The following Figure from a World War II Navy document shows how all of these elements interact. Namely:

- 1. Data come from the Director. It determines the range, azimuth, elevation, and other factors related to the target.
- 2. The signal is sent to the rangefinder or computer which we will discuss.
- 3. There is a gyro which establishes a stable and reliable frame of reference. The gyro is rotating and when the ship moves, pitch, roll or yaw, the gyro retains its original orientation, thus it is possible to determine what the true reference is.
- 4. The stable vertical is the establishment of where the vertical is related to the position of the ship and the input from the gyro. It tells where "up is".

These data inputs and outputs result in the calculation of a firing set of time and coordinates for the 5" gun. It also tells when exactly to fire the gun.



Figure 154 Fire Control and Stable Platform

# 12.3.3 Computer

What is this computer that one hears so much about in a World War II Destroyer. Who made it and what did it do. Was it really a computer? If it really was a computer why do the men who used it feel they never saw a computer. There are many questions and the answers are really quite simple. It was a computer and the men actually programmed it and it performed real time functions that we still find amazing to do on our very best computers. When one thinks back to the Star Wars project, hitting a ballistic missile with a rocket, and the computation need to solve that problem, then one must realize that it is the same problem that the computer on a Destroyer solve for many such targets simultaneously, and they were threatening the very existence of the programmer, the fire control man, real time!

The computer did the following functions. It collected the data on the target and the data on this ship. This data was supplied via automatic means such as what was supplied via reference to the stable element and Director and it was also manually entered. The purpose of the Director was to calculate the direction of fire of the guns to assure hitting the target. This meant that it had to have a set of ballistic tables or calculate them on the fly to determine the result. An example of a simple gun ballistic trajectory is shown in the figure below.

It shows the range and elevation for a shell from a gun with exit shell speed of 880 feet per second and for differing elevation angles of the gun. By keeping the charge on the shell the same, namely effecting an exit speed of 880 feet per second, and altering the elevation angle of the gun mount, ranges from 19,000 feet to 23,000 feet can be reached in this example. Of course this is a very simple example of the gun pointing exercise.

It just gets a shell from one point to another and assumes that the ship is not moving and the world is two dimensional. Things are much more complex than that, as we have already stated. Yet all of that complexity can be modeled. It can be incorporated into a set of equations which can be solved. The number and complexity of the equations is significant. In the World War I there would have been ballistics tables, computed by people, frequently women because of their better accuracy, possibly using mechanical calculators, and from these tables one could determine a good firing solution, namely where and when to point the gun.



# Figure 155 Ballistic Firing result from gun with exit velocity of 880 feet per second as a function of elevation angle.

In World War II the electro mechanical computer was introduced. It was an evolution of may devices which did calculations mechanically and where the mechanical elements were facilitated by using small motors, and in addition some calculations could be done electrically as well. All of the computation was an analog type of computation, namely voltages and currents, rotation of motor shafts and resistor potentiometers were both input and output, as well as the elements for internal calculation.

The actual computer which did the analysis is shown below on a Fletcher Class Destroyer. It was a large and complex device which many manually rotatetable dials for inputs, many automatic electrical inputs, and many electrical out puts to the guns them selves. It weighed hundreds of pounds and required a team of persons to operate.



Figure 156 Fire Control Computer

At the core of this computer was the use of small motors call synchros. They were also called resolvers in certain instances. Simply put, they small motors took input electrical signals and coupled them via small coils in the motors to outgoing signals and the outgoing signal had a relationship which was very important on the solution of the ballistic problem. The device allowed for the generation of certain trigonometric calculations, namely the generation of sine and cosine values of angles and products of those with certain other values. Using a collection of these devices grouped together, one could enter certain angles and then the computer would generate as outputs certain other angles such as the pointing angles for the guns, so as to solve the targeting problem that was discussed earlier.



Figure 157 Computer

An example of the synchro combination is shown in the Figure below. The small coil like devices are transformers which connect one signal to another but the connection depends on the geometrical relationship between the coils. Namely one can obtain the appropriate mathematical formula for the necessary ballistic transformations. The problem starts as a collection of complex mathematical formula and then is converted to a set of synchro connection patterns in the computer. On the top side of the computer are the cranks to set in the input information of target angles, speed, and other such variables and on the bottom side comes out the signals going to the gun mounts for the control of the firing solution.



Figure 158 Resolvers and synchros as configured

The following Figure shows the generic collection of inputs, outputs and signal processing within a typical fire control computer. Cranks are turned to set synchros and then synchros set synchros and finally synchros set small motors at the gun mount to aim the gun to hits the desired point. The computer must perform the following sets of calculations:

- 1. Establish where the ships guns are relative to the stable elements and make corrections for the difference from the stable element in the firing solution.
- 2. Determine where the target is at the present time as regards to the stable element and calculate a firing solution at the current time.
- 3. Estimates where the target will be at some distant time, namely the time of fire, using information on the targets initial range, azimuth, elevation, range rate, azimuth rate and

elevation rate. These six inputs are then used to estimate or "predict" the position of the target at this future time. This is a quite difficult calculation. It was performed in the computer.

- 4. Using other data such as temperature, humidity, shell and gun data, incorporate all of that into the desired firing solution.
- 5. Finally, fire the gun at the determined firing solution.

Simple, but not really. It is quite complicated, on a par with sending a man to the moon. But performed with a complex electromechanical computer using synchros.



#### Figure 159 Generic Computer using synchros as calculators

The fire control computers dramatically improved the hitting efficiency of the guns. The computers had been designed and built by Ford, not the motor company<sup>204</sup>. This company, located on Long Island, was the premier manufacture of Naval Fire Control. As Clymer states<sup>205</sup>:

"The Ford range keepers were superseded by the Ford Computer Mark 1 in the Gun Director Mark 37. This director was first tested in 1939 and it quickly became the standard dual-purpose director in World War II, although many Range Keepers Mark 10 in Directors Mark 33 also were built and used.

<sup>&</sup>lt;sup>204</sup> See Clymer, IEEE papers.

<sup>&</sup>lt;sup>205</sup> See Clymer, IEEE, pp. 25-26.

The Bureau of Ordnance considered the Computer Mark 1 to be "enormously successful." The system included transmission of data to and from the computer below decks by means of synchros. Designed originally for the 5-inch/38 guns, it was soon modified by Ford Instrument Co. for a number of other guns and ammunition types as well. Choice of the term "computer" in preference to "range keeper" recognized the growing inadequacy of the term "range keeper" to describe the system. Keeping range was a small part of its function.

Fine as this fire-control equipment was for 5-inch guns and up, it was not suited to the smaller guns and decentralized control that proved necessary in World War II for defense against incoming aircraft in large numbers. Moreover, the large fire-control systems were not economically feasible for use on small naval vessels and merchant ships having guns even as large as 3 inches.

Fire control for close-in attack by a number of aircraft was "sadly neglected in the years between the two wars" due to an "ill-founded complacency" concerning the ability of firecontrol systems of the day to destroy all targets at greater ranges. '\* The Japanese exploited this weakness with several distinct modes of attack."

Clymer further states:

"Optical range finders gave way to radar in the late 1930s and early 1940s. This resulted in a substantial increase of capability of searching for targets (with "broad-beam search radars") and tracking targets (with "narrow-beam fire-control radar").

No longer was it necessary to illuminate a target with star shells at night or lose a target in mist. Moreover, the range, target bearing, and elevation signals were cleaner, smoother. and more accurate. The measurement of range and target direction angles had been freed from the limitations of the human operator of an optical range finder.

The advancement of synchros for transmitting and receiving data in fire-control systems was a step away from manual follow-the-pointer systems. These synchro systems are described in Department of Ordnance and Gunnery publications." A few problems existed because the Bureau of Ordnance had to deal with other bureaus in getting its equipment installed. For many years - until 1943, in fact - the gun mount foundations provided by the Bureau of Ships did not meet specifications of the Bureau of Ordnance.

"Presumably the accuracy of gunnery then improved somewhat. One of the most valuable advances was the development (about 1940) of powerful control systems for automatic training and elevating of guns of all sizes. After the installation of automatic control, the guns could fire with precise aiming at any time, freeing gunnery from the centuries-long dependence on synchronizing firing with rolling of the ship. Although the earliest systems were susceptible to oscillations and lags."

Improvements in the mathematical design of control systems, and (according to William Hampton, then a Ford employee) the use of steel piping for greater hydraulic stiffness, resulted in satisfactory performance."

## 12.3.4 Weapons

The weapons on board the ship fell into four categories:

- 5. Sea Targets
- 6. Land Targets
- 7. Aircraft Targets
- 8. Submarine Targets

The land targets were hit using the 5" guns in most cases. They were tied into the Director and the guns were then targetd to specific land targets. The aircraft targets were hit using the 40mm and the 20mm cannons. They were very effective with these targets and could create a screen around the Destroyer and the vessels it was monitoring. The submarine targets were hit with depth charges.

The sea targets would be his with guns or torpedoes. The Destroyer evolved from a torpedo ship and this was its earliest missing before the War. In World War II the torpedo function remained.

## 12.3.4.1 Guns

The fire control problem is thus seen to be extremely complex. It requires sophisticated understanding of the ballistics of shells, the multidimensional changes from one platform to another and the ability to operated a mechanical analog computer to make these calculations. It also requires the understanding of estimating and predicting the movement of complex targets such as attacking aircraft. It means that the fire control personnel must be able to "think " real time in multi dimensional space.

The fire control men and officers must have skills to do all of the technical tasks and to do them at a time when they are being attacked and if they are not successful in their work the result was death. The group of them were educated in high school, even the college educated officers were all too often liberal arts graduates, the technical grads were sent to more complex technical tasks. Yet they all had the strong educational base to handle these complex problems.

The first and largest gun was the 5". There were five of these guns, two fore and three aft. They could be controlled by the Computer or if the Computer was down they could be manually aimed. A gun crew fed the shells into the gun from below and the gun was manned internally. The gun, when under Computer control was fired remotely. There was a separate gun crew in the five gun mounts during General Quarters.

The guns were moved by large hydraulic motors. The guns would rotate and also change in elevation. The gun crew consisted of up to eleven men, one of which was the gun captain. The shells came from the shell handling room below, were inserted in the rear of the gun and the firing was done automatically from the fire control station. The gun crew could also do manual firing and pointing if the fire control system was no longer functional. Empty shell casings, hot after firing, had to be removed by the gun crew to make room for new shells.

The 5" gun fired a 54 pound explosive shell 18,000 yards and maxed out at 22 rounds per minute<sup>206</sup>.



Figure 160 The 5" Gun

The next largest gun was the 40 mm guns. They could be used for sea, land or air. However they were intended primarily as anti aircraft weapons mainly. An example of one is shown in the Figure below. The sighting mechanism was somewhat complex and it was moved by powerful electric motors at its base. It took a gun crew of eight, mostly ammunition passers. One can see in the picture the pointers sight which was aside the gun barrel.

The 40 mm guns were designed based upon a Swedish gun called the Bofors. The 40 mm can fire up to 160 rounds per minute<sup>207</sup>. There was in front of the Main Battery Director, the one aiming and controlling the 5" guns, a 40 mm Director for aiming and controlling the 40 mm guns. The 40 mm had a useful range of up to 2,800 yards.

There was a six man gun crew on the 40 mm guns. There were ammunition passers, loader and mount captains. The 40 mm was in effect a machine gun, and it was considered the largest such gun in the Navy's arsenal. The 40 mm could also be operated under local control and it would then need a sighter. The problem with a sighter and local control is that if the gun were to be used for aircraft fire then the leading of the aircraft is a very difficult operation for the human brain to comprehend.

<sup>&</sup>lt;sup>206</sup> Roscoe, Destroyer Operations, p. 19.

<sup>&</sup>lt;sup>207</sup> Roscoe, Destroyer Operations, p. 15.



Figure 161 The 40mm Guns

Using the 40 mm to defend against aircraft meant filling the sky with flak, fragmented metal burst apart and meant to incapacitate any aircraft that went through it. A direct hit was near impossible, the aircraft moved at speed in excess of 300 mph and moved in directions which had limited continuity so as to pick and follow a track. In addition the 40 mm was somewhat sluggish as a weapon to hit such fast moving targets.

The 20 mm anti aircraft guns are shown below. Like the 40 mm they were intended for air protection. However the gun crew was only half that of the 40 mm. It required only 4 men. The sighting was visual. A typical 20 mm is shown in the picture below.

The 20 mm gun was the typical close range automatic anti-aircraft weapon. It had a maximum range of 4,000 yards and was fired manually. The 20 mm fires automatically as long as the trigger is activated. The 20 mm fires at the rate of 450 rounds per minute<sup>208</sup>.

<sup>&</sup>lt;sup>208</sup> Roscoe, Destroyer Operations, pp. 15-18.



Figure 162 The 20 mm Guns

These three types of guns were the total armament on a Destroyer.

The accuracy of hitting a target depends on several factors. One is the accuracy of hitting a point. This can be described by a hit circle, namely that each shell will fall in a certain circle with extremely high probability. This one can see a 25 yard radius wide circle as the place where a shell can be delivered. This depends on the fire control men and the overall gunnery department. The small the radius depends on the better crew. Then there is the kill radius of any one shell. A shell can have a kill radius of say 10 yards. This one shell can kill anything in a 10 yard radius and any one shell will fall within a 25 yard radius circle. The we can ask how many shells must be fired to ensure a high probability of a kill.



Figure 163 Target Hit and Kill Radius

The following Figure shows what the impact of accuracy and kill radius is on the number of shells required to assure a target is eliminated. Here we have a gun crew who can place any one 5" shell within a 50 yard radius circle. This is 300" wide or the size of a football field. The crew can hits the side of a mountain and if you are a Marine force about 450 feet away you have a negligible chance of getting hit by a stray shell. The if the kill radius is 10 or 20 yards one can calculate how many shells are needed to get to the target. This example shows how many shells are required, the answer is lots and lots unless you can get your aiming accuracy up to a higher level.

Kill Probability 50 yard radius of accuracy: 20 and 10 yard kill radius per round



Figure 164 Kill Probability versus Shell Rounds

# 12.3.4.2 Torpedoes

Torpedoes were historically the mission of a Destroyer. There were two torpedo mounts on a Destroyer with five torpedoes in each mount. There were no spare torpedoes and the loading on the tubes was a fairly complex procedure. As shown in the Figure below, which is a fur tube mount from the USS Cassin Young, the tubes are mounted atop ships and could rotate in all directions. The torpedo is composed of about 500 pounds of explosive and on the Grant they were all configured for contact explosion. Namely they had to hit their target to explode.



Figure 165 Torpedo Mount

The torpedoes were gyroscope controlled and their control was a sophisticated combination of manual sighting and homing on by means of the internal gyros. The torpedo was driven by a motor fueled by pure ethanol, alcohol, which had a pink hue and was called "Pink Lady". The alcohol was oxidized by means of compressed air or latter by using hydrogen peroxide, which generated oxygen. The torpedo once set on a course, held the course and depth by using the gyro for an initial course reference and using a pressure measuring device to maintain depth. This once a torpedo was launched it went in a certain fixed direction and at a certain fixed depth.

The torpedoes, the Mark 15, were 21" in diameter and 24 feet in length and carried about 500 to 800 pounds of an explosive called Torpex. Torpex was composed of 45% TNT, 37% RDX and 18% Aluminum. Torpex at the 500 pound load had the explosive power of 1,000 pounds of TNT. Thus on a single torpedo mount there was from 5,000 to 8,000 pounds of TNT in explosive power. A single hit here could be the death knell for a Destroyer.



Figure 166 Mark 15 Torpedo, Harold Carlson second from the left

At the beginning of the War the torpedoes had magnetic proximity detonators, but they never functioned properly. They were all disabled by the time the Grant set sail. Thus the torpedo was

a ballistic missile, with no ability to change or track course. Some of the torpedoes would at the end of their flight divert to just running their course by circling.

The targeting of the torpedo can be seen in the following Figure. The target ship is moving in some direction relative to the Destroyer and it is moving at a certain speed. The Destroyer must the fire the torpedo so that when the torpedo reaches a certain point the ship is also at the same point. Thus knowing the direction of the ship and its velocity one can determine what the line of movement the target is on. Also knowing the angle of the torpedo and its speed one gets another line. To get them to meet a certain set of equations must be equal. This process is performed by means of an elegant set of gears in the ranging and targeting device which controls the torpedo.



Figure 167 Torpedo Targeting Problem

Now the question one may ask is how good is this process. Shown in the next figure is what would happen if the ship moved only 2 ft per second faster of slower. The 2 fps number is a difference of 1.5 mph, a very slow difference. The probability of hitting the ship if we only know the true speed within those limits is less than 20%. Now if one adds uncertainties due to angles, then due to settings on the torpedo, then due to uncertainties on the Destroyers own speed and bearing, one can determine that the chance of hitting a ship at a distance of 18,000 feet is less than 2%!



Figure 168 Torpedo Targeting Solution

There are a few studies which depict the potential accuracy of the torpedo but many of them relate to aircraft and submarines at closer range. As will be seen, if one looks at a battle condition of nighttime, long ranges, and fast moving ships, the effectiveness of torpedoes in that case is quite limited. One study by Morse and Kimball at MIT considered several attack patterns<sup>209</sup>. These were typically for in close attacks by submarines. If one were to extrapolate these numbers for the ranges used by Destroyers one would see that the chance of ever hitting a ship target was very small.

The following Chart does depict the kill probability for a certain configuration as a function of range and dependent on the number of torpedoes fires. At close range it is a cake walk. As the range increases the chance gets smaller and smaller. If you have three destroyers and each has five torpedoes, then with 15 torpedoes and at 6000 yards and with good targeting you get a high chance of one hit.

<sup>&</sup>lt;sup>209</sup> See Morse and Kimball Operations Research, pp 114-122.




There were two types of torpedo firing: (i) salvo firing where the torpedoes were all fired sequentially at the same direction and (ii) pattern firing where the torpedoes were fired at a determined angular offset. There are also several well known errors; (i) aiming error due to the failure to get to the center of the target and (ii) ballistic error which spreading of the torpedoes from the pattern as they go towards the target. Simply put if the target is close and if one can get a good fix on the target and if the torpedoes go true and straight in the water then there may be a chance. Otherwise the facts speak differently. Submarines were the most successful with the torpedo, aircraft the second. Surface vessels especially the Destroyer were the least. This is strange since in many ways the Destroyer was designed and intended as a torpedo launching platform.

Carlson in his diary provides an excellent description of torpedo operation<sup>210</sup>:

"The torpedo we worked on was called Mark XV (#15) and Was mainly used on destroyers. For your information, every torpedo before it was used on any warships had to have many exercise runs. This meant that in front of the torpedo was a section for the explosive called TNT .This section was called the war head. But, for an exercise run (without TNT) the front end was filled with colored water plus lead weight which was to equal the normal weight of TNT .Naturally, they also considered the weight of the water.

On top of the same warhead section, for an exercise run, was a valve that operated by air once the air in the torpedo got down to 300 pounds. Now the air valve opened and expelled all the colored water from the exercise bead. This would cause the torpedo to float so that the target practice ship would follow the trail of colored water and pick it up nose side up to be again tried

<sup>&</sup>lt;sup>210</sup> See Carlson Diary.

for another exercise run. The torpedo would come back again to the torpedo shop to see that all parts were okay and someone bad to make the decision that this one was okay for actual use on a destroyer .

This main "body section" was held to the ..nose section.. with about 80 bolts around the circumference where the sections were held together. Many times we had special wrenches for working on the torpedo everywhere when needed. The next section after the "main body" was called the "after body." Instead of being a longitudinal circular shape like the "main body," it tapered down to a cone shape appearance. This "after body" was now held on to the "main body" by those same 80 bolts and I would guess they were about 1 inch apart for both bodies.

The "after body carried many important items and I'll try to remember them from memory:

1) The main engine was inside. It was considered a jet engine because it was run by steam driven turbines.

2) It had a fuel tank containing 190 proof alcohol (I've forgotten how much).

3) There was also a combustion pot where the alcohol and the air were mixed together causing steam when previously heated in the combustion pot.

4) Besides the combustion pot, there was an igniter that caused a fire, creating steam from the air and alcohol mix.

5) There were 2 turbines which Were spun by the steam and power was transferred to various gears and shafts which finally would drive the propellers.

6) The most important item inside the torpedo was the gyro. Whenever you were young you probably had a toy top that had one wheel spinning within another. This top, if you remember, would, when spinning, cause you to follow the top.

This was the same idea with the gyro in the torpedo. While the gyro was spinning the torpedo would follow the gyro. Outside the torpedo there were adjustments for setting the gyro to various angles because on a destroyer you only had so many degrees to unload a torpedo. Therefore, if the target ship were off to the left we would have to give the gyro a left gyro angle and subsequently the torpedo would follow the gyro.

Previously, I forgot to mention that the "warhead" in the nose cone ha\ling TNT as an explosive. It also contained an explosive mechanism. This was used to explode the TNT once the torpedo struck the target ship. Inside the exploder mechanism there was a firing pin which would cause 3 distinct explosions. One was a small tube of fulminate of mercury. This was contained in a cup shape (about twice the size of an egg cup) containing some other explosive material which I cannot remember .. Anyway, the firing pin was released on contact with the target ship and within a few seconds all 3 explosions took place.

7) Also in the .'after body" is the depth mechanism and it was pre-set before the torpedo was shot at the target ship. This operated very neatly because for each foot that you go deeper in the water you do experience additional pressure on your body. Therefore, this is the principle used where a spring is pre-calibrated for required depth for the torpedo to only go as deep as you set it I just happened to think that I can't remember how we set the torpedo speed. This always had to be considered especially if the target ship was a long distance away. If you set the torpedo speed too fast Page 3 you would run out of fuel before reaching the target ship.

8) The "after body" also contained an impeller which would turn by itself when traveling through the water. The exploder wouldn't be free to blow up until after a couple hundred yards away from the ship. If this impeller wasn't working, the firing pin would explode the torpedo once it left our ship when it hit the water and blow us up instead. There were vertical and horizontal to help in stabilizing a torpedo in the water similar to fins on a fish. In fact, the nickname for a torpedo is a "fish."

9) At the rear end were 2 propellers coming from the main engine shafts to drive the torpedo in the water. The reason for 2 props were to prevent the torpedo from "bobbing" up and down and gave smoother performance. (I'll still write further on about what is happening in the actual firing one aboard ship.) I should have mentioned that after boot training was finished on Goat Island, we were allowed to have "liberty" which really is called "shore leave" when you're attached to a ship. I also remember we were introduced to some nomenclature and one item was: "from now on a pail is not a pail, it is called a bucket."

The consequences of this observation will play out in the tale of the Grant.

Torpedo Director Mk 27 can be operated by two men, but in actual operation three or four men are used. They are: (1) torpedo officer, (2) director trainer, (3) selector switch operator, and (4) telephone talker.



Figure 170 Torpedo Team at Director

The torpedo control officer is responsible, under the commanding officer, for the efficient operation and maintenance of the torpedo control system and the torpedo battery. The torpedo control officer will see that firing and synchro transmission circuits are tested frequently. His station is at the engaged torpedo director. He is usually free to consult with the commanding officer concerning favorable track angles, unmasking the battery, and torpedo speed settings. When firing torpedoes from both sides of the ship, by utilizing both torpedo directors, the officer of the deck and the director trainer man one torpedo director and the torpedo control officer and the selector switch operator man the other.

The Director Trainer mans the torpedo director and its firing key on the engaged director. In actual operation of the torpedo director, the director trainer performs the following duties: Sets torpedo speed, target speed, and target course into the torpedo director and trains the torpedo director on the target. He also sets gyro angle into the torpedo receiver as ordered. Finally the fires torpedoes with firing key as directed with three second intervals.



Figure 171 Torpedo Director

The Telephone Talker serves as torpedo control officer's talker and performs duties of trainer and selector switch operator in case of casualties to personnel.

Clymer relates the Torpedo Director development<sup>211</sup>:

"Torpedo data computers for use by submarines were developed by the Arma Corporation in 1935. Arma had been building stable elements and other gyroscope instrumentation for weapons since its founding in about 1920. The torpedo data computer automated much of the process of inserting data into a torpedo to establish its course, speed, and depth. It was primarily a mechanical computer with some electrical components.

By World War II most submarines in the US Navy had a TDC Mark 3.12 A simpler and more compact version of the torpedo data computer, the Mark 2, was developed by William Newell (see item 5 in the Appendix).

Destroyers of that period carried Torpedo Director Mark 27, which contained a mechanical computer. A number of approximations could be made, because the resulting errors could be ignored when torpedoes were fired in a spread. As a result, the equations were much less complex than those of the antiaircraft fire-control problem.

As early as 1942, the Bureau of Ordnance conceived of a need for a system for computing and displaying the data of concern in antisubmarine warfare. The resulting product was the Attack Director Mark 2, which contained a mechanical computer. Fifteen were delivered"

<sup>&</sup>lt;sup>211</sup> See Clymer, IEEE. p. 28.

# 12.3.4.3 Depth Charges

Depth charges were probably the least sophisticated of any of the weapons systems deployed. They were devices which looked like an ash or trash can. The term ash was reverberant for those in the forties since most home heating units were coal burners and coal produced ashes, and the ashes were sent to the curb for pick up



Figure 172 Depth Charges

The depth charge contained 3000 to 600 pounds of TNT. The fire mechanism was pressure sensitive and when activated they would fire at a certain depth. The depth could be rolled off the stern as shown above or it could be fired in a pattern using what was called the K Gun<sup>212</sup>.

# 12.3.5 Command and Control

The control element was the fifth and final element layer of the CCC system. It centered around the ability to communicate between ships in the attack group and to internally manage all of the flow of information and commands to deploy the weapons systems on board.

There are two elements of the Command and Control function:

Commanding: In this case the radio was the primary element. The radio allowed for inbound fleet messages, called Fox messages and also allowed for inter ship communications called TBS, or talk between ships links.

Control: This meant the ability for the Flag, namely the Admiral in charge of a Task Force for example, to control his assets to be deployed and to protect them as necessary.

<sup>&</sup>lt;sup>212</sup> Roscoe, Destroyer Operations, pp. 55-60.

## 12.3.5.1 Radio

The radio system was just coming to its own in the War. In WW I there was limited Morse Code links but the radio in that war was secondary to the battle effort. It was for limited reporting and the concept of command, control and communications ("CCC") had not evolved. The CCC idea in World War II had now expanded into a complex strategy for warfare.

Radio had also expanded. The Grant and destroyers like it now had several radio systems. The primary was the long distance VHF system used when propagation allowed. There was also an HF radio which worked very long distances. There was the TBS, or talk between ships radio, which was a short distance radio working at VHF in the 60-70 MHz band. This was a low power set which could from time to time actually be heard over long distances.

The long distance radio was both Morse code and voice. The code could be encrypted or coded to attempt to avoid enemy interception.

Gillman states in his Navy Report on radio<sup>213</sup>:

"Fleet Adm. E. J. King, USN, who was concurrently Chief of Naval Operations and Commander in Chief, U.S. Fleet, in his third report to the Secretary of the Navy, dated 8 December 1945 stated:

"Perhaps the greatest technological advances of the entire war have been made in the field of electronics, both within the naval laboratories and in collaboration with the Office of Scientific Research and Development. Pre-existing radar sets were developed and new methods created for ship and airborne search, fire control and for accurate long-range navigation. Identification and recognition equipment were developed for use in conjunction with radar systems. New and highly efficient short-range radio telephones were used for tactical communication ..... Countermeasures have been developed for jamming enemy radar and communication systems, disrupting the control systems for his guided missiles, and counteracting his measures to jam our own equipment."

#### He continues:

"The development of electronic warfare equipment was accompanied by other problems of stupendous magnitude. Personnel had to be trained to design these equipments, engineer them for production, install, maintain and, operate them, afloat, in the air, and ashore. The enormous ship and aircraft building programs intensified these problems. ...... These problems resulted in a continued expansion of the headquarters facilities responsible for the program.

When the Bureau of Engineering and the Bureau of Construction and Repair were consolidated, in June 1940, into a single Bureau of Ships, the Radio and Sound Division lost its status as a division and became the Radio and Sound Branch of the Design Division. The growth of the

<sup>&</sup>lt;sup>213</sup> *History of Communications-Electronics in the United States Navy*, Captain Linwood S. Howeth, USN (Retired), 1963: <u>http://earlyradiohistory.us/1963hw34.htm</u>

electronics program in 1940 and 1941 placed the organization, composed of 39 civilian and military personnel, under great strain.

This resulted in the only fundamental reorganization of electronics personnel in the Bureau, when, in October 1942, the Radio and Sound Division of the Bureau of Ships was established. At the war's end it had expanded to a total of 1,205 personnel. ..... The ever-increasing numbers of ships, aircraft, tanks and other mobile weapons called for an ever-increasing number of radio circuits.

For short-range requirements channels were set up in the very-high- and later in the ultra-highfrequency portion of the spectrum to provide fairly secure tactical communications. In the highfrequency portions, multiplexing and frequency shifting were resorted to in an endeavor to increase the intelligence transmitted per kilocycle. Circuits were speeded up by the adoption of teletypewriter transmission on point-to-point and on some broadcast circuits. These had the advantage of releasing badly needed telegraphic operators to ships and also reduced the numbers required for training.

The Navy's most serious radio communication problems were in the Pacific theater of operations. In that area enormous radio stations had to be constructed, equipped, and manned to handle a volume of traffic which exceeded several millions of words per day and often exceeded the capacity of all available circuits. This problem was aggravated by the different views concerning message precedence held by the two services and inability to prevent the assignment of unnecessarily high precedences by many originators."

The following Figure depicts the simple TBS antenna. It was a simple dipole on top of a slanted ground plane. It worked quite well for the period.



Figure 173 TBS VHF Antenna

The radio room of a Fletcher was quite small. The following picture depicts one.



Figure 174 Radio Room

The frequencies used in the War are shown with their abbreviations in the following Table. One can see that the ranges for each frequency varied and some frequencies allowed very long distances. The long range was allowed by having the radio signal refract of bend through the ionosphere and come back to earth. This meant that very long range communications was achievable. However it was not predictable.

Band name	Name	Frequency and Wavelength	Range (mi)
Low frequency	LF	30–300 kHz 10 km – 1 km	
Medium frequency	MF	300–3000 kHz 1 km – 100 m	
High frequency	HF	3–30 MHz 100 m – 10 m	250 mi (3-4 MHz) 500 mi (7-8 MHz) 1,900 mi (10-11 MHz) 2,000+ mi (14-15 MHz) 1.400 mi (28-29 MHz)
Very high frequency	VHF	30–300 MHz 10 m – 1 m	2,500 Mi (50-60 MHz) 500-5,000 mi (145-150 MHz)
Ultra high frequency	UHF	300–3000 MHz 1 m – 100 mm	
Super high frequency	SHF	3–30 GHz 100 mm – 10 mm	

Table 1	3 Frequ	encies use	d for R	Radio (	Communications
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The following is a set of Tables summarizing WW II receivers and transmitters as used on the Grant<sup>214</sup>. The first is the receiver sets which were available.

<sup>&</sup>lt;sup>214</sup> Data obtained from: <u>http://home.earthlink.net/~navyradio/id14.html</u>

RAL	Name	Frequency 300 KHz-23 MHz	Table 14 ReceiversBandMF in 300 KHz to 3MHz	Manufacturer RCA	Usage
			HF in 3-30 MHz		
RBA-	1	15-600 KHz	MF	Federal	Heterodyne and tuned radio
RBB-	1	500 KHz-4 MHZ	MF and HF	RCA	AM and CW
RBC-	1	4-27 MHZ	HF only	RCA	
RBM				Westinghouse	Used on Battleship bridge for monitoring
RBK		27-143 MHz	HF and VHF (30-300 MHz)	Hallicratfers	AM/FM/CW Monitoring receive, could track TBS also
TBS		60-80 MHz	VHF		Super heterodyne with 5.3 MHz IF

The following are the transmitters used on ships.

			Table 15 Transmit	ters	
	Name	Frequency	Usage	Power	Manufacturer
TCK			CW and AM	400 W CW	-
				100 W AM	
TBL		LF/MF/HF		200 W CW	Westinghouse
		175-600 KHz		100 W MCW	
		2-18 MHz		(LF/MF only)	
				50 W AM	
TDE		MF/HF	CW and AM	135 W CW	Farnsworth
		300-1500 KHZ		35 W MCW	
		1.5-18.1 MHZ		30 W AM	
TBS		60-80 MHz	AM	50 W AM	

The radio systems were robust but they went through a hierarchy as discussed above. On a ship to ship basis with TBS there were no real issues. When it would go distances, then signal would hub in on Manus as a switch and that was where the problems would begin. In World War II there were large nodes, called message switches, where all the high level communications would come in, get uncoded, and then redispatched. There were massive problems. It was pre-FEDEX. Messages were not properly prioritized so critical delays resulted, messages were routed wrong, routed out of order, and in addition propagation problems caused messages to never get from one point to another. The basic physics of radio propagation was just recently understood and what worked at HF did not work at VHF not to mention UHF. Radio was and would continue to be a evolving art.

The Figure below shows how a radio network may work. There are in this example 5 Nets. each about a 700 mile radius of coverage. Each of which works on a set of pre determined frequency bands, like radio channels or TV channels. Now the fleet ships know what they are and they select one to transmit a message.

All message are routed through Manus or Net 3. Let us assume we want to go from Task Force 1 on Net 1 to Task Force 2 on Net 6. Task force 1 sends a message to Net 5 which transfers it to Net 2 then to Net 3. This is Manus. The massage is then routed to Net 2 again and then to Net 5, possibly to Net 4 and then to Net 6 for Task Force 2. This is what happened to Halsey when he went to seek the Japanese Fleet. Kinkaid was on Net 1 and Halsey on Net 6. They could possible talk with one another directly, their circles overlap, but the Navy communications command required that all message go to Manus and then outward! This meant that Halsey and Kinkaid would never be able to talk in a real time manner. It also meant that messages would get out of order, be randomly delayed, and some times just plain get lost. Imagine trying to talk with parts of the conversation being treated this way. It was chaos! Unlike the CIC architecture the radio network architecture was controlled from Washington and the officers there had no idea what the impact was!



Figure 175 Radio Network with Control Points

How do these nets work? The radio waves are sent out from a ship to the antenna and then some of the radio energy gets bent, refracted, by the ionosphere as is shown below. This bends the wave back down to the earth a far distance from where it was originally sent. Thus a net can cover a wide are depending on what distance a ship is from a station. For each distance a frequency may work well. Thus the nets are set up to optimize the overall signal strength given the frequencies which are used. The frequency choices depend on distances, how the network is connected, and even time of day and time of year. This is a complex and oftentimes rigid system.



Figure 176 Radio Wave going through the Ionosphere

The radio operator had a complex job. Not only did he have to send and receive the messages and keep the equipment under repair but when sending to distant locations he had to establish a connection. This means knowing what the frequencies or channel were to that location and then finding one which would work. The radio paths would bend through the ionosphere and this is what allowed long distance communications. The ionosphere is 30-300 miles above the earth and the part that is used for communications bending is 100-300 miles. It changed from hour to hour and from day to day. The bending of the signal and thus its distance which it was carried depended upon the frequency used. Thus if a message were to be sent from Leyte to Manus, say 1,400 miles, one may select a certain frequency which gave 1400 miles. Too high a frequency and it may go too far, or not at all, too low and it may bend too sharply and end up near the ship and not near Manus. There was no computer or Director to help. It was part science and many parts an art, and only a good experienced radio man could get you there. The radio technicians were invaluable to the success of a war ship. In World War II the radio network was used in an extensive fashion for the first time.



Figure 177 Choosing a Frequency for Transmission

Unlike the CIC which we discuss next the communications network had been developed by the heavy hand of the Naval offices in Washington. It was a hierarchical system making certain that all messages went through a few key points so that command could be maintained. The radio network had a logical and scientific basis in the propagation which we have just described but it was really designed and influenced by the Navy command structure. Thus it used large "message switch" locations at Manus and other key points which could readily become overloaded in a battle. The switches would take all message in and then retransmit out to the fleets. This was a store and transfer type of approach. It had the major problem of having few if any alternate routes and it had node congestion. There does not seem to have been any analysis of improving no less optimizing the radio network. Added to this limitation was the fact that there was little if any ability to communicate with the Marines on land no less the Army if the operation was a joint service operation.

Security was always a concern, coded and encrypted messages being the key to trying to secure them<sup>215</sup>. There also was the concern that the Japanese could use the use the technique of radio traffic analysis ("RTA") as the Americans had perfected it<sup>216</sup>. RTA was the procedure where decrypting was not necessary. RTA studies the location, volume and pattern of communications. From this data intelligence estimates are prepared and assessments made. The Office of Naval Intelligence had developed this technique. It has become the mainstay of much of what is today called signal intelligence, SIGINT.

<sup>&</sup>lt;sup>215</sup> See Kahn, Codebreakers.

<sup>&</sup>lt;sup>216</sup> See Spector, Eagle Against the Sun, p. 157.

Thus with so many concerns and some many cooks in the kitchen, the radio network was complex, over burdened, and frequently unreliable.

## 12.3.5.2 Combat Information Center

The Combat Information Center on a Destroyer was a small and tightly outfitted room shown in the following Figure. The CIC collected all combat related information from all the sensors and then coordinated that information and directed the overall weapons deployment on a real time basis. The CIC worked hand in hand with the bridge, as a Destroyer went into action, the CIC would coordinate with the other ships in its group by means of ship to ship radio, not breaking radio silence, and using other signalling means and methods such as flags and lights. These inter ship means of communications were very low data rate channels but they had evolved over centuries into effective tactical ship to ship means of coordinating during times of battle. Instead of information overload the systems dealt only with the facts and responses necessary to effectively execute the battle.

From the paper by Hone, the author recounts the CIC development<sup>217</sup>:

"The problem was that the new radars had produced a lot of relevant data, but the individual ships lacked a process for turning that data into essential information that their captains could act on. There was one exception, however. The executive officer of new destroyer Fletcher, Lt. Commander J. C. Wylie, Jr., had rigged a radar control room "just off the chart house" where he could monitor in real time the information from Fletcher's radars and the reports sent Fletcher by other ships. Wylie spoke directly to Fletcher's captain, who stood in his traditional post on the bridge, informing the captain of friendly and hostile ship movements that the captain could not see. Wylie did not create any new equipment. Instead, he organized that equipment in such a way that he could draw useful information from all the data that the equipment produced.

As Fletcher's captain noted in a 19 November 1942 report, "the officer [Wylie] in Radar [sic] control was able to keep the Captain constantly informed of the tactical situation, which was often visually obscured; was able to select and then designate gun targets; and was able to coordinate the fire-control tracking and torpedo-director pointing for torpedo fire."<sup>218</sup> In short, Wylie provided his commander with "situational awareness," with the result that Fletcher came through two very severe engagements in November essentially unscathed.<sup>219</sup>

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<sup>&</sup>lt;sup>217</sup> Hone, T.C. From Concepts to Capabilities through Learning: The Case of *Stiletto* Today and the Case of the Combat Information Center (CIC) in World War II: Former Assistant Director for Risk Management, OSD/OFT. http://www.oft.osd.mil/initiatives/stiletto/docs/Concepts%20to%20Capabilities%20Paper%20April%2006.pdf

<sup>&</sup>lt;sup>1</sup> Report, from The Commanding Officer, to the Commander in Chief United States Fleet, via the Commander, South Pacific Force and the Commander in Chief, Pacific Fleet, subject: "Use of type SG Radar during night action," November 19, 1942, Serial No. (S)-2, page 1, in Record Group 38, World War Two Action and Operational Reports, U.S.S. Fletcher, Box 984, National Archives.

<sup>&</sup>lt;sup>219</sup> See John B. Hattendorf's "Introduction" to Rear Admiral J. C. Wylie, Jr.'s *Military Strategy: A General Theory of Power Control* (Annapolis, MD: Naval Institute Press, 1989), p.xv.

Fletcher's successful performance was documented in reports to the Pacific Fleet Destroyer Type Commander in Hawaii, Rear Admiral M. S. Tisdale, and in reports to the senior Navy commands in the Pacific and in Washington.<sup>220</sup> Early in 1943, Tisdale transferred Wylie to his staff and directed him to produce a short handbook on how to use the available equipment and new data evaluation procedures to create a CIC. Wylie and his colleagues produced the "CIC Handbook for Destroyers" in two months. The "first run of about five hundred copies... was an immediate success and within a short time was widely reprinted and distributed throughout the navy."<sup>221</sup> Tisdale then sent Wylie to Washington to gain the support of the Bureau of Ships (responsible for search radars and plotting equipment), the Bureau of Ordnance (responsible for fire control radars), and the Atlantic Fleet destroyer type commander.<sup>222</sup>

The next step was to institutionalize the CIC concept—that is, to build on Wylie's operational innovation to make it both the standard operating procedure and a stimulus for further advances in technology. Making the CIC a Navy-wide standard was done by issuing handbooks and tactical bulletins. The Pacific Fleet staff also began publishing a special journal (CIC) in 1944, and fleet tactical doctrine was formally changed that same year.<sup>223</sup> New military occupational specialties were created, CIC schools were set up, and newer ships were altered so that they had sufficient space for the equipment needed by a working CIC. Facilitating this rapid institutionalization of the CIC concept in surface warships was the effort already expended in the Pacific to create effective air defense (or "fighter direction") centers on board aircraft carriers.<sup>224</sup>

In about 18 months, the Navy moved from its first operational installed microwave radar and Plan Position Indicator (PPI) scope to the institutionalization of the CIC concept.<sup>225</sup> For this to happen, multiple streams of development—in radars, plotters, and communications equipment had to be combined and applied to the needs of the combat forces. This combining was done by the combat forces, which had to deal with a resilient and adaptive enemy, and it placed a great strain on part of the Navy's acquisition community. As the official history of the Navy's Bureau

<sup>222</sup> See "Tentative Destroyer Escort Combat Information Center Handbook," December 1943, Box 614, Record group 38 (Records of the Chief of Naval Operations, HQ COMINCH), National Archives.

<sup>223</sup> Current Tactical Orders and Doctrine, U.S. Fleet (USF 10A).

<sup>224</sup> When Computers Went to Sea, David L. Boslaugh (Los Alamitos, CA: Institute of Electrical and Electronics Engineers, 1999), pp. 20-21 and 38-45. See also Angel on the Yardarm: The Beginnings of Fleet Radar Defense and the Kamikaze Threat, by John Monsarrat (Newport, RI: Naval War College Press, 1985), especially pages 53-55.

<sup>225</sup> Naval Radar, Norman Friedman (Annapolis, MD: Naval Institute Press, 1981), especially pp. 147-48.

<sup>&</sup>lt;sup>220</sup> Initially, LCDR Wylie's reports, as well as those of his Captain, CDR W. M. Cole, went to the commander of Task Force 67, but CDR Cole's report of 19 November 1942 was endorsed by the Commander South Pacific Area and South Pacific Force on 21 December 1942 and endorsed again on 19 January 1943 by the Commander in Chief, U. S. Pacific Fleet, and sent to the Commander in Chief, U.S. Fleet. Box 984, Record Group 38, National Archives.

<sup>&</sup>lt;sup>221</sup> Hattendorf's "Introduction" to Rear Admiral Wylie's *Military Strategy*, p. xvi.

of Ordnance pointed out, "The rate of equipment obsolescence was greater than production rates." The Bureau responded to this challenge by producing "the first workable design at hand, rather than wait for a potentially superior design at a later date."<sup>226</sup> But this approach worked because of "the ability of the men in the fleet to get better than predicted performance out of whatever equipments were available."<sup>227</sup>

This dramatic incidence of revolutionary innovation was a response to the deadly pressure of combat. The success of the initial CIC-equipped ships silenced any critics of the process of userdriven acquisition, and the special rules that governed acquisition in wartime opened possibilities for procurement, testing and funding that would not have been possible in peacetime. However, the size and weight of the equipment in a CIC prohibited Navy officers from extending the successful CIC operational concept to smaller combatant craft."

From the plan prepared by Wylie and distributed to the Pacific Fleet, he describes "The CIC of a Destroyer (DD)" as follows:

"The destroyer is a general utility ship and has many missions to perform. It may be used in surface actions, air actions or against subsurface craft. Its primary weapon of attack is the torpedo, but it has a potent secondary weapon of dual purpose guns. Escort work for combatant or noncombatant ships is also a destroyer's duty.

# Function, duties and responsibilities of CIC.

The CIC of a destroyer performs the same general functions as outlined in Parts II, III and IV of Rad SIX. The CIC of a destroyer should provide for the efficient handling of simultaneous enemy attacks of all types. In addition to the general functions, a destroyer's CIC has the following added responsibilities: (i) Torpedo fire. (ii) Anti submarine warfare. (iii) Escort work."

The CIC watch bill is described as follows:

<sup>&</sup>lt;sup>226</sup> U.S. Navy Bureau of Ordnance in World War II, Buford Rowland and William Boyd (Washington, DC: Bureau of Ordnance, Navy Department, 1953), p. 420.

<sup>&</sup>lt;sup>227</sup> *ibid*.

#### Table 16 CIC Watch Bill

Position

		Condition I
	Officers	Men
Evaluator	1	
CIC officer	1	
Fighter director	1	
Gunnery liaison officer	1	
Geographic plotter		1
Assistant geographic plotter		1
Geographic recorder		1
Surface plotter		1
Air plotter		1
Assistant air plotter		1
SG operator and standby		2
SC operator and standby		2
Radio recorder		1
JA talker		1
		<b>Condition III</b>
	Officers	Men
CIC watch officer	1	
Geographic plotter		1
Surface plotter and VF operator		1
Air plotter		1
SG operator		1
SC operator		1

The picture below shows the CIC on the USS Cassin Young. It is small cramped quarters with a great deal of equipment all stuffed in the same room. In addition there are many men in the room during combat.



Figure 178 CIC on USS Cassin Young

The architecture of the CIC is shown in the following three Figures. The first depicts what its major functions are. The CIC must perform the following functions as specified in the US Navy Specifications:

**Collection**: The Collection of combat information is the initial function of CIC. To accomplish this, CIC must maintain adequate and efficient search and detection, utilizing the following agencies to their maximum effectiveness.

- 1. Radars are the single most important agency in search and detection.
- 2. Radio-intercept.
- 3. Radio direction finder.
- 4. Radar search receiver.
- 5. Sonar is a detection agent whose information must be instantly available to CIC.
- 6. Visual agencies such as optical range finder, lookouts, signals, fighting lights and NANCY equipment.

Intelligence is derived from the following:

- 1. Operational plans and orders.
- 2. Navigational data.
- 3. Weather information.
- 4. Underwater sound conditions.
- 5. Dispatches.
- 6. Technical publications.
- 7. Tactical publications.
- 8. Intelligence reports.
- 9. Recognition.

**Display**: Display of collected information is the second major function of CIC. A principal reason for the existence of CIC is that most information obtained in CIC is more readily utilized and comprehended when displayed. To this effect, CIC is equipped with all or some of the following, depending on the complexity of the installation:

- 1. Horizontal, polar coordinate plotting boards.
- 2. Vertical, polar coordinate plotting boards.
- 3. A dead reckoning tracer (usually horizontally mounted).
- 4. Projection PPIs (VG, VG-1, VG-2).
- 5. Remote PPIs.
- 6. Precision PPIs (VF).
- 7. Strategic charts.
- 8. Tactical charts.
- 9. Status boards (air, surface, and weather information).
- 10. Radar receiver indicators.

With these facilities the track and identity of all contacts is determined, and such computations as may be necessary are performed.

**Evaluation**: Evaluation is the third chronological function of CIC. Evaluation is the final weighing and taking into consideration of all related factors in order to clearly indicate the intended movement of the enemy units. Related to, but distinct from evaluation, is the interpretation of combat information. By interpretation is meant the routine computations and reports such as courses and speeds, approach and retirement, relation of ship's position to land and position of approaching enemy air attacks.

**Dissemination**: Dissemination of the evaluated and interpreted information in rapid comprehensible form is the most difficult function of CIC. This function includes dissemination of early warning, solutions for maneuvers to be executed, navigational data, and indication of probable targets. Whereas CIC has graphic visual displays of all combat information the control stations are still largely dependent upon receiving information by voice communications. CIC must disseminate all pertinent combat information to: (1) Flag, (2) Conn, (3) weapon control stations, (4) air control stations, (5) other ships, (6) aircraft, and (7) shore stations, in such a manner that the *recipient understands* the *existent situation*. Plots, teleplotters, PPI's and accessory equipment are located in other stations to record and display evaluated information and raw data in order that the officers at those stations may have presented to them by the most efficient method the necessary information they require to carry out their assigned functions.

When CIC has the best information and instantaneous action (control orders) are required, command should give such general directives as necessary in order that CIC may issue control orders to appropriate units of the ship. Such a situation is the night torpedo plane attack in which in addition to the normal functions of dissemination of information including target indication, CIC is in the best position to coach the proper fire control radars on threatening targets and check fire when another fleet unit is endangered by your own fire. This practice is made necessary because of the extremely short time between detection and attack.



Figure 179 Overall Architecture of the CIC

Interior communications as relates to the CIC provides the following as shown in the next Figure:

*Radar*. Radar is the most obvious source of information, but it must not be forgotten that the functions of CIC must continue when the radars are out of action. All other sources of information should be used.

*Sonar*. CIC must be alert to aid in the development of sonar contacts using information derived from other sources. Use of sonar in navigation, or work other than A.S.W. should not be overlooked.

*Radio direction finders and search receivers.* When intelligently used, RDF bearings and search receiver indications are of great value, and may provide the only source of information when land masses affect radar coverage or targets are not within range of radar detection.

*Lookouts*. Close coordination between lookouts and CIC is mandatory for recognition and confirmation of air and surface contacts. Lookouts should be used as a habitual and automatic source of information.

*Flag.* The flag should so advise CIC of pertinent developments and plans that CIC may become thoroughly familiar with the objectives, methods of operation, and information desired by the flag.

Within the ship the Control stations and their duties are:

*Conn*. It is the responsibility of Conn to inform CIC of maneuvering, tactical, and identification data; anticipated information should also be reported.

*Weapon Control Station*. Close cooperation between CIC and control stations should be maintained. Those stations which have direct communication must inform CIC of the condition of readiness of the batteries, which targets are taken under fire and when targets are shifted, damaged or destroyed.

*Air Control.* Close liaison should be maintained between air operations and CIC. Fly control and air plot will advise CIC of operations planned and tactical organizations of all flights.

Operations orders. CIC should have a copy of pertinent orders.



Figure 180 CIC On Board a Single Ship

In a similar fashion under the control of the Flag the CICs are internetted, albeit in a manual fashion using a common data set.



EXTERIOR INFORMATION FLOW

Figure 181 CIC Across a Battle Force

The CIC in the Grant during action is shown below:



Figure 182 Grant CIC during Action, most likely Borneo 1945

# 12.4 Command, Control and Communications (CCC) System

In modern warfare the use of the term, command, control, communications and intelligence ( $C^{3}I$ ) has come to characterize how modern warfare takes into account in an integrated fashion all of the elements of the weapons platform to maximize the potential to achieve the desired goal while

minimizing the risk to the humans on board. Such systems require well educated and trained members of the crew, both officers and enlisted men, and it requires the best in management skills to ensure that these activities are carried off without error during times of extreme duress. It is critical to understand this concept and how it was employed in the Destroyer fleet in World War II. It was the first time in history that Naval warfare combined high state of the art technology with well educated and trained crews. And in addition, the crews were all assembled and trained in record times, and had to act in a coordinated fashion not only within their own ships boundaries but also in large fleet actions. It can be seen when looking at the battles that the Grant was involved in that their very survival was a tribute to the system and to the training.

The integrated CCC system of a Destroyer is shown graphically below. There are five layers in this system:

Sensors: These were the radar, sonar and Directors. These sensor elements detected targets and provided the information as to their range, azimuth, elevation, or bearing and depth.

Reference: The reference elements or elements were the gyros. In a ship, and in a ship attempting to achieve a hit on a moving target, it is essential to know both where you are and where the target is. The gyro based stable platforms or elements were critical to this mission.

Computer: The computer was a first. In prior wars at best one may have had ballistic plotting tables, where recalculated settings were used and then the his or miss approach was employed to zero in on a target. It allowed for evasion and also expended excessive amounts of ammunition. In the Destroyer environment of World War II the first real time computer allowed for real time targeting. The computer used the sensor data and employed the reference planes of the stable elements to calculate the required firing patterns of the guns.

Weapons: The weapons systems of a Destroyer were capable of dealing with land, air, sea and submarine targets. The computer then directed the guns for land, sea, and air targets. The submerged targets were still handles as somewhat of a hit or miss approach using depth charges. This of course has been eliminated in today's Destroyer fleet. The weapons were the 5" guns, the 40mm and the 20 mm weapons, the torpedoes, and the depth charges. They were used at times as an integrated weapons system, and at times individually. The Destroyer could handle submerged threats, surface threats, land threats as well as air threats, and do so in a simultaneous fashion.

CIC and Communications: The introduction of the CIC, Combat information Center, was a brilliant move at this time. Apart from the bridge and the control of the ship, the CIC was the heart of the weapons systems. It in many ways became the bridge for the weapons, whereas the classic bridge retained its role over the ship. The two could function almost independently. In aircraft carriers this separation occurred between the aircraft and the carrier itself, as ship.



Figure 183 Command, Control, Communications System

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<sup>ii</sup> From Bugge notes.