

War II, although there are fewer of them. Today this group of carrier and escorts is referred to as a "Carrier Strike Group." After Pearl Harbor, each grouping of carrier and escorts was referred to as a Carrier Task Force. As the war went on and more carriers were built, the Carrier Task Force became a multi-carrier formation. Today, for combat operations or major exercises, Carrier Strike Groups will operate as a Carrier Task Force in much the same way as in the later years of World War II.

Although the primacy of the carrier and its aircraft is now threatened by ballistic missiles with terminal homing capability, this primacy has endured significantly longer than that of the battleship. Battleships were large heavily armed and armored ships that could inflict and withstand incredible punishment from very big guns. The reign of the battleships only lasted from about 1900 to 1940, and the transition from supremacy of the battleship to that of aircraft carriers occurred with stunning rapidity in the early years of World War II. The Japanese attack on Pearl Harbor on 7 December 1941, in which five of the eight battleships present were sunk by Japanese aircraft, was a major factor.

Carrier aircraft armed with aerial torpedoes were recognized as a serious threat to battleships even before Pearl Harbor. In the years leading up to World War II, the primary purpose of the aircraft carrier was to protect the battleships from attack by aircraft from enemy aircraft carriers, and to occasionally be cut loose to conduct hit-and-run raids on shore targets. This paradigm rapidly shifted after Pearl Harbor. By the end of the war, new battleships with the speed to keep up with the carriers were carpeted with anti-aircraft weapons, and their primary role became protection of the aircraft carriers. Also, by the end of the war, U.S. Carrier Task Forces no longer had to engage in hit-and-run tactics, but could stand their ground against large Japanese land-based air

forces. This ability to engage land-based air power, such as the North Korean air force, is actually the driving factor today in the size of Navy aircraft carrier force structure (not how many aircraft carriers a potential adversary may have.)

Even from the earliest days, the U.S. Navy was at the forefront of advanced technology. The sail frigate USS CONSTITUTION was the technological marvel of 1797. The cruiser USS OLYMPIA (now a museum ship in Philadelphia) represents the epitome of late-Victorian era cutting edge technology in 1898. The rate of technological change accelerated dramatically in the first half of the 20th century such that ships and aircraft were frequently obsolete within only a few years (sometimes less.) World War II brought dramatic and rapid increase in new and matured technology, some of it focused on the German U-boat submarine threat, but most intended to counter Japanese technology, which in a number of cases (carrier aircraft and torpedoes for example) was more advanced at the start of the war than the U.S. Navy. The shock that the Japanese had some better weapons at the beginning of the war led to the understandable obsession in the U.S. Navy today to ensure a technological edge over any potential adversary (which has always been expensive to do, and is becoming increasingly difficult.)

Among many naval technologies that came of age in World War II were radar, sonar, homing torpedoes, influence mines, identification friend or foe (IFF), radar-proximity fuzed anti-aircraft shells, code-breaking, secure (encrypted) communications, greatly improved firefighting capability, and many more. Some technologies such as jet aircraft, guided missiles, and submarine nuclear propulsion were conceived or were well underway during the war. Navy officers even played a key role in the development of the atomic bomb.



In the early days of World War II, ship commanders had to fight battles based on what they could see with their own eyes. There was initially no mechanism to integrate and make the best use of the information that was coming in by radar, sonar and improved communications, and in some cases battles against the Japanese were lost because commanders did not make the best use of the new technology that had developed so quickly. The fix to this was the Combat Information Center (CIC,) carved out of space in the ship, initially ad hoc, which brought all the different streams of information into one location so that it could be rapidly analyzed and used to make informed tactical decisions faster than the enemy. Toward the end of the war, it was still necessary for ship Commanding Officers to lay eyes on incoming kamikaze aircraft for last second evasive action. However, the advent of fast jet aircraft and missiles soon after the war rendered such visual observation ineffective and the CIC, with the ship's sensor suite, became the core of any warship's combat capability, and remains so today (under various names).

World War II also saw the beginnings of major social change in the U.S. Navy. For most of the history of the U.S. Navy, African-American and other minorities served side-by-side with white enlisted sailors in an integrated Navy (the officer ranks, however, were exclusively white). This was not because the U.S. Navy was a progressive institution, at least regarding race, but was more a function of the extreme difficulty in attracting anyone to the arduous life at sea in the age of sail and early steam. Sailors were pretty much at the bottom of social strata anyway, so white sailors mixing with Black sailors did not appreciably offend the generally racist sensibilities of the time.

The U.S. Navy's integration at the enlisted ranks started to backslide in the early 1900's as warships

became significantly more technologically advanced. The increased educational requirements levied on sailors aspiring to newly-created technical rates (such as radiomen) had the effect of precluding Blacks from these technical rates because they usually came from disadvantaged educational backgrounds. This process culminated when the Wilson Administration officially instituted segregation into the U.S. Navy just before the outbreak of World War I. Blacks and minorities were barred from all but the most non-technical rates (such as the soon-to-be-obsolete "Coal-Passer").

By the beginning of World War II, Blacks (and Filipinos) were relegated to the Messman's Branch, i.e., cooks and stewards for the white officers, which became the Steward's Branch in 1943 (White enlisted sailors had white cooks). The role of Stewards is fairly accurately depicted in the recent movie "Greyhound." Although sometimes denigrated as "seagoing bellhops," Stewards did have combat duties ("battle stations"), although the degree of responsibility given to Black sailors tended to vary based on what part of the country the ship's Commanding Officer was from. In most cases, the combat duties of Stewards involved heavy manual labor, such as passing ammunition or serving as stretcher-bearers to carry wounded up and down steep ladders.

However as the war went on, more Black Stewards were allowed to man guns, and almost invariably acquitted themselves with great valor, even in the face of Japanese kamikaze suicide plane attacks. The earliest example of this was Doris Miller, who was the first African-American to be awarded the Navy Cross (second highest award for valor behind the Medal of Honor), for manning a machine gun and shooting down Japanese planes during the attack on Pearl Harbor, although the approval of the medal had to overcome



intense institutional prejudice and required outside political intervention. The next U.S. aircraft carrier to be built will be named in honor of Doris Miller, an obvious legacy of the Pacific War.

Although the Secretary of the Navy in the first years of the war, Frank Knox, was not a proponent of increasing responsibilities of Black sailors, the Chief of Naval Operations, Fleet Admiral Ernest J. King, was much more practical minded and recognized the importance of having the African-American community on board with the war effort. To be blunt, as soon as Knox died in office, King moved forward with opening up more rates to Black sailors, and took an initial step at re-integration when he determined that having separate training facilities for white sailors and Black sailors was an unnecessary waste. Nevertheless, the great majority of the 100,000 Black sailors in the Navy by the end of the war were enlisted as cargo-handlers in all-Black stevedore units. The court martial of Black Navy stevedores after the Port Chicago explosion in July 1944 (and arbitrary exoneration of their white officers) reflected deeply ingrained racism in the Navy at the time.

Nevertheless, late in the war saw some positive developments. The destroyer-escort USS HARMON (DE-678) was the first U.S. Navy ship named after an African-American, Leonard Harmon, who was killed in action at Guadalcanal and was the second Black sailor to be awarded a Navy Cross, posthumously. The destroyer-escort USS MASON (DE-529,) commissioned in 1944, was the first (and only) ship that was almost entirely manned by Black sailors (except for officers) with Black sailors in technical rates from which they had previously been barred. Black sailors with these technical rates were then integrated into shore billets, albeit in segregated berthing. In late 1944, the first Black officers

in the U.S. Navy (the “Golden Thirteen”) were commissioned (and then put in charge of all-Black shore units.) In 1945, the Navy conducted an experiment with an integrated boot-camp company, which actually went very well, to the surprise of those who expected it to fail.

Although there was some backsliding in racial progress in the Navy in the precipitous demobilization after the war, the seeds had been planted for integration that followed. In a number of cases, Black Stewards given the opportunity to man guns had manned them to the bitter end, firing on Japanese aircraft to the last, and that courage was noted. The Navy was actually implementing desegregation even before President Truman issued his desegregation order in 1948. Although it would still be a long road, with instances of racial conflict aboard U.S. Navy ships late in the Vietnam War, World War II marked the beginning of a return to the Navy’s integrated roots, except it now included officers as well. Samuel L. Gravely Jr. blazed a trail of firsts, including the first Black admiral in the U.S. Navy in 1971.

Although the Atlantic Theater was of great importance, the overwhelming preponderance of U.S. Navy effort in World War II was against the Japanese. The Navy today is still very much a product of the war in the Pacific and will likely remain so until such time as technology renders aircraft carriers obsolete.

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