
V. World War II (1940-1945)

Rumblings of war again reached across the oceans and Naval Air units would soon be called to protect American interests in connection with the spreading conflict. German U-boats brought the threat of naval warfare into the western Atlantic, and President Roosevelt ordered the Navy to establish a neutrality patrol to keep an eye on any approaches to the U.S. coast.

The attack on Pearl Harbor on December 7, 1941, demonstrated the power of sea-based aviation as Japanese carrier planes devastated America's principal naval base in the Pacific and eliminated a major portion of the Navy's surface power. But, aided by her distance from the enemy and her industrial strength, the United States rallied and produced the needed ships, aircraft, equipment, and trained pilots which made up the forces needed to ensure victory.

In a real sense, Naval Aviation came of age during WW II.

With the wartime expansion of Naval Aviation, the Navy was confronted with a training problem unprecedented in its experience. To meet the fast-growing need for pilots, ground officers at air stations and enlisted personnel in aviation ratings, functional training commands were established. Separate air commands provided operational, primary, intermediate, technical and naval airship training. To ensure standardization and uniform excellence of flight instruction, the Flight Standardization Board was established, whose members made regular visits to the primary training bases and flew with the instructors to check on their aptitude, procedures and current knowledge. In 1943, the Training Division of the Bureau of Aeronautics was transferred to the newly created Deputy Chief of Naval Operations for Air, and the Chief of Naval Air Training was established with cognizance over all primary, intermediate and operational training commands.

Naval Air power began the fight with one small and seven large aircraft carriers; five patrol wings and two Marine aircraft wings; 5,233 aircraft, including training types; 10 dirigibles; and 5,900 officers and 21,678 enlisted members. During the war, the force grew to over 100 carriers of various types, 40,900 aircraft, 168 airships, 60,095 pilots and 370,760 aviation support personnel.

Early in the war, enemy submarine contacts and the sinking of merchant ships were almost a daily occurrence in U.S. coastal waters. This reaffirmed the need for fleet airship groups and their

squadrons. Coastal patrol and escort of convoys became their primary missions, in addition to the general utility role. During wartime operations, the Navy's airship fleet made 55,900 operational flights totaling 550,000 hours. Only one airship was lost to enemy action.

Tactics and doctrine developed in the twenties and thirties were perfected during the forties, and new combat techniques were added to the Navy's inventory.

As the war progressed, the Navy placed much emphasis on instrument flight training and procured airborne radar for fleet aircraft. Combat requirements in the early days of the war in the Pacific resulted in the development of aircraft capable of night operations.

The PBY *Catalinas*, or *Cats*, were the only long-range patrol aircraft available in nearly adequate numbers during the first years of the war. Though they were slow and vulnerable by day, airborne radar which became available in 1942 allowed them to become "surefooted" and deadly at night against enemy surface and shore installations. Ingenious *Cat* crews of VP-11 experimented with mixtures of soap and lamp black to give their aircraft a coating that made them difficult to see against the night sky, earning them the name *Black Cats*. The first official *Black Cat* squadron was VP-12, which operated its PBY-5As from Henderson Field on Guadalcanal, scouring the New Georgia Sound for Japanese warships and cargo vessels that came south at night to supply their troops and to bombard U.S. positions. As the allied offensive gathered momentum, the *Black Cats* moved westward in the vanguard, operating from tenders and makeshift bases and accounting for the sinking or disabling of hundreds of thousands of tons of enemy shipping.

In conjunction with the night patrol operations, the first carrier-based night intercept attempts were initiated from *Enterprise* during the Gilbert Islands campaign in November 1943. Separate night attack and night intercept missions converged to form a night combat air group, CVLG(N)-41, aboard *Independence* in the summer of 1944, soon joined by CVG(N)-90 embarked on *Enterprise*.

From those successful, innovative night operations, all-weather flying evolved. Instruments, equipment, techniques and tactics were developed so that carrier-based aircraft could operate in any environment.

Advances in technology and stepped-up ship

construction contributed greatly to the effectiveness of Naval Aviation in the war years. Radar and other improved electronics made it possible for airmen to virtually see in the dark to detect underwater prowlers. New *Essex*- class carriers gave the fleet improved striking power, and some major naval engagements were fought entirely with air power without opposing surface forces visually sighting each other. Large numbers of smaller escort carriers provided tactical air power in the Atlantic and Pacific, close air support of amphibious landings on jungle islands, and improved capability against enemy submarines. Patrol aviation was expanded to cover all the waters of the globe.

The young airmen of the twenties had grown wiser with experience. Equipped with WW II aircraft,

weapons and tactics, they had checked the Japanese advances at the Battles of the Coral Sea and Midway, stemmed the onslaught at Guadalcanal, and turned the tide in the Pacific from Tarawa and Kwajalein to Saipan and the Gulf of Leyte, to Iwo Jima and Okinawa, and finally carried the offensive to the Japanese homeland.

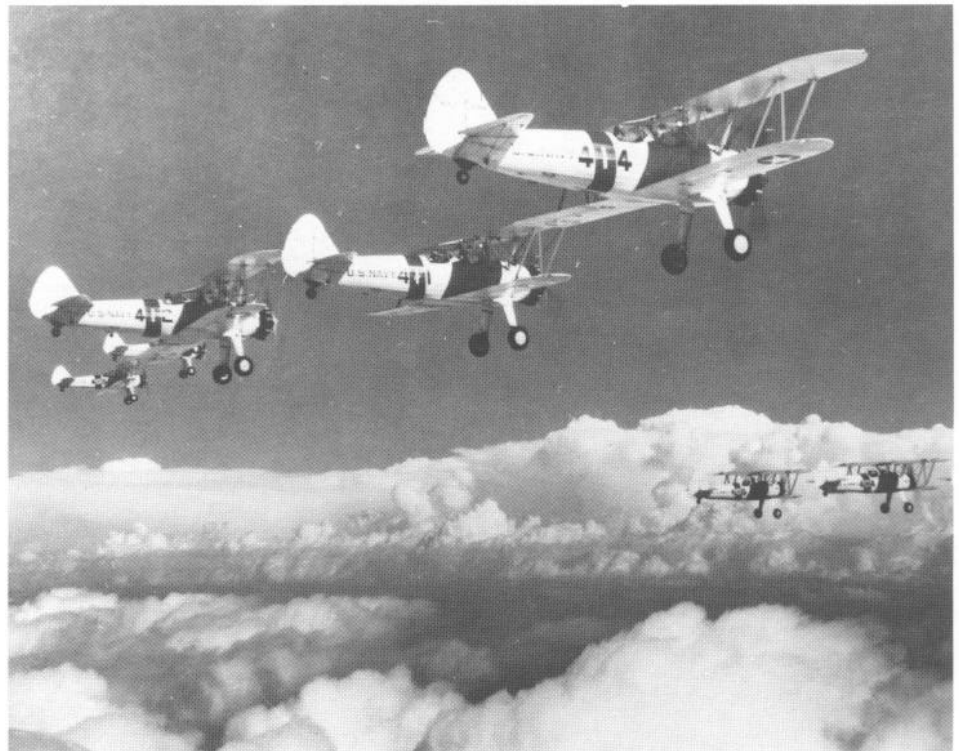
In the course of the war, Navy and Marine Corps pilots destroyed 15,000 enemy aircraft, sank 174 Japanese warships and, in the Atlantic, destroyed 63 German U-boats. The Navy's air arm played a major part in achieving control of the seas and final victory. By war's end, Naval Aviation had emerged as one of the Navy's most flexible and devastating weapons.



On December 7, 1941, "a day that will live in infamy," Japanese carrier aircraft attacked Pearl Harbor. USN 16871



Fortunately, at the time of the attack on Pearl Harbor, the three aircraft carriers assigned to the U.S. Pacific Fleet, including Saratoga shown here with a full flight deck, were at sea. NH 92500



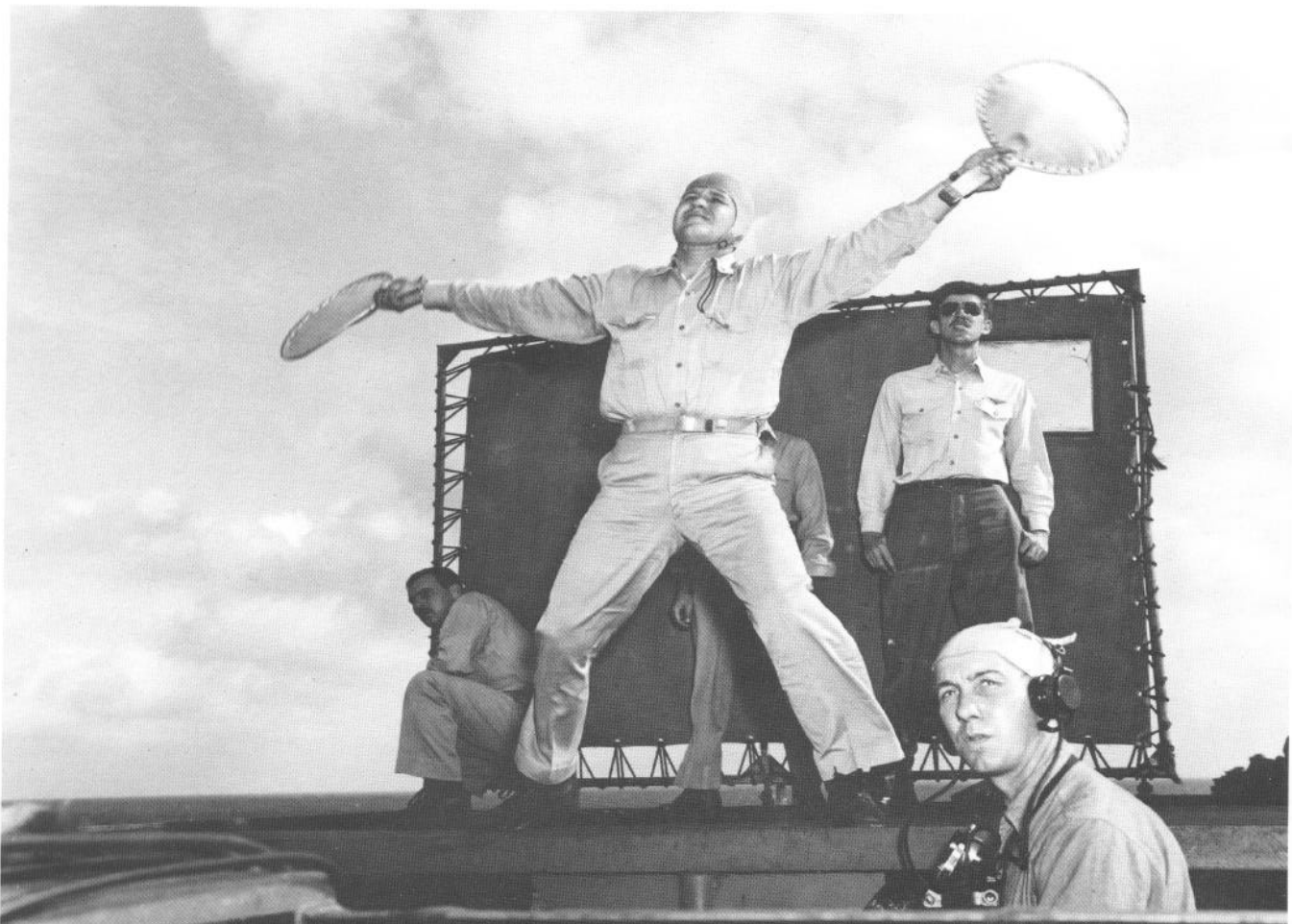
Americans dug in for the long task ahead. Naval Aviation expanded by leaps and bounds. The venerable N2S Stearman biplanes trained thousands of Naval Aviators for the fleet. NA 80-G-41554

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The Navy needed support personnel for its burgeoning air arm. Women as well as men answered the call. Here, Waves learn how to tear an aircraft engine down and put it back together again. NH 86160

New Navy pilots found carrier operations a challenge. Landing signal officers (LSOs) had one of the toughest jobs of all. USN 319008



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O'Hare USN OOR-10036

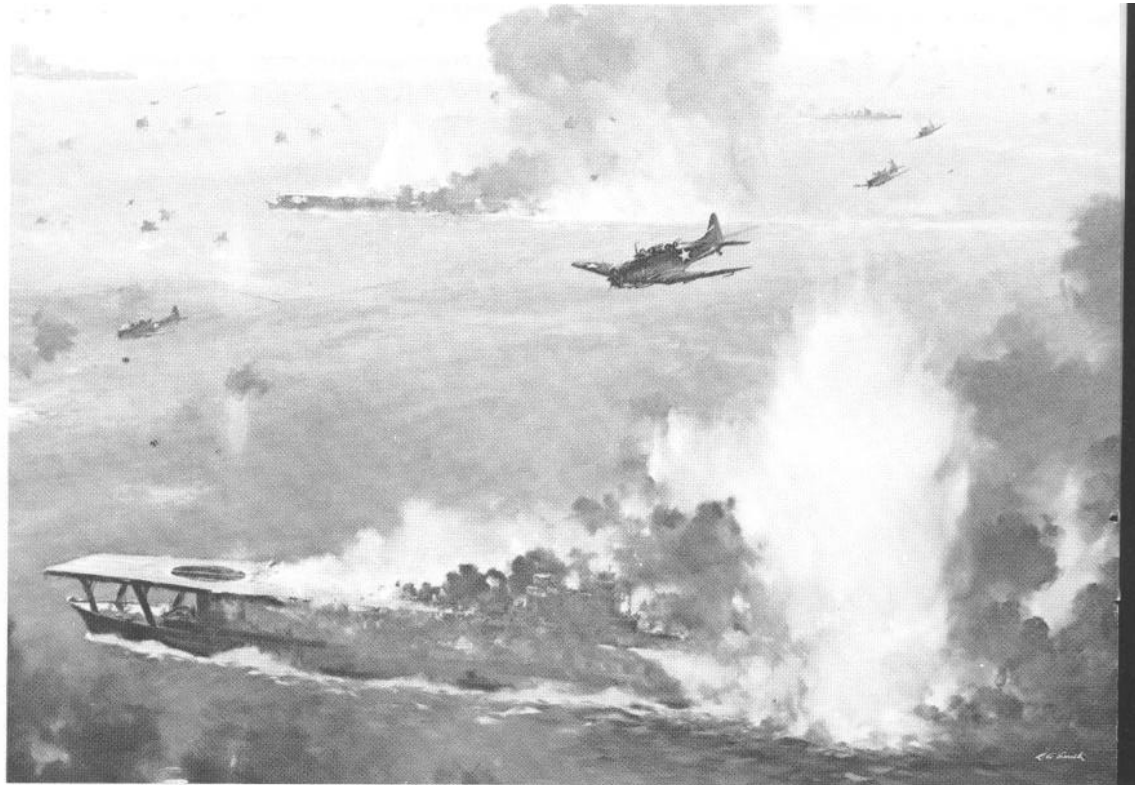


Thach NA 80-G-64835

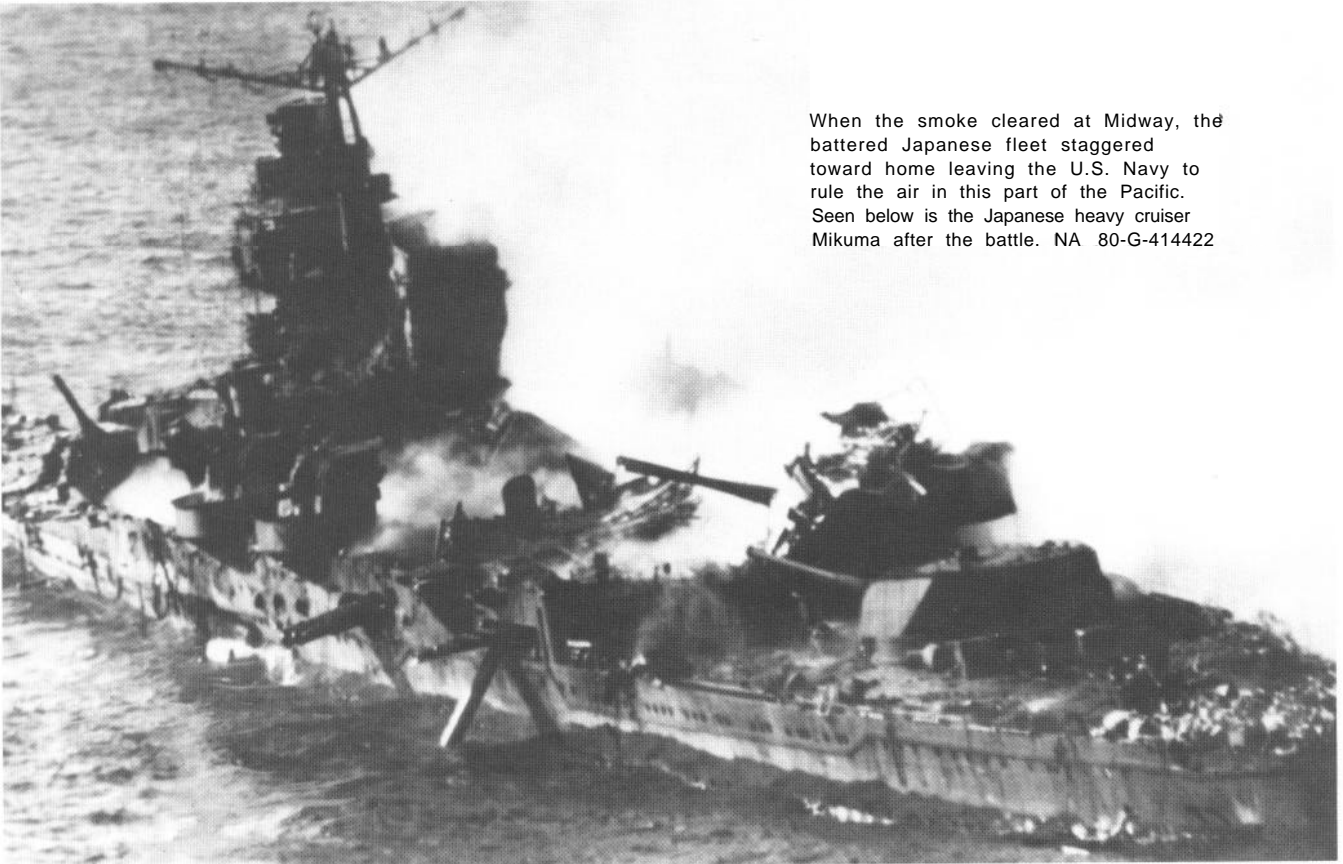


Naval Aviators developed new techniques to cope with the fast and highly maneuverable Japanese fighters known as Zeroes. An especially innovative tactic was the famous Thach Weave devised by Lt.Cdr. John S. "Jimmy" Thach while he was commanding officer of Fighter Squadron 3. One of Thach's pilots, Lt. Edward H. "Butch" O'Hare, became the Navy's first WW II ace, at the Battle of the Coral Sea. Thach and O'Hare are shown here in their Grumman F4F Wildcat fighters in early 1942. NA 80-G-10613

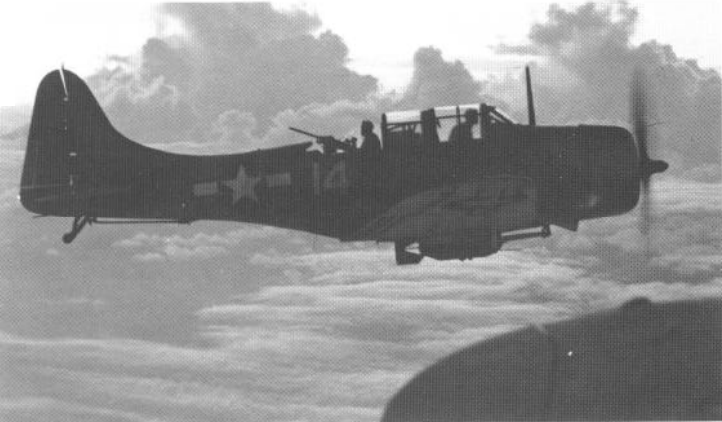
The Battle of Midway was the turning point of the war in the Pacific. Here, Douglas SBD Dauntless dive-bombers work over Japanese carriers.



Artist R.G. Smith, McDonnell Douglas Corporation



When the smoke cleared at Midway, the battered Japanese fleet staggered toward home leaving the U.S. Navy to rule the air in this part of the Pacific. Seen below is the Japanese heavy cruiser Mikuma after the battle. NA 80-G-414422



An SBD Dauntless in the Pacific. NA 80-G-473572



Geiger USMC 10712

The U.S. invaded the Solomons in mid-1942. Marines flying from the captured enemy airstrip, renamed Henderson Field, held firm against fierce Japanese efforts to retake Guadalcanal. Maj.Gen. Roy Geiger commanded the Second Marine Air Wing at Henderson.



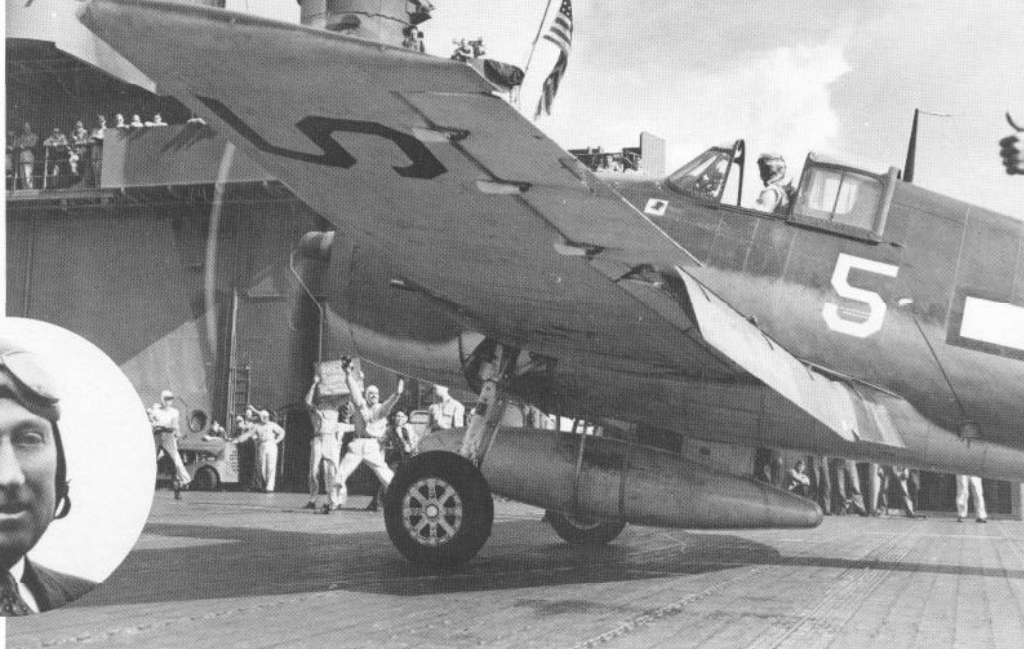
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The great air battles now focused on driving the Japanese from the Solomons. Fighter squadrons like the Grim Reapers of Fighter Squadron 10 under aggressive commanders like Lt.Cdr. James H. "Jimmy" Flatley, Jr., led the way. NA 80-G-412048



Flatley

Called the most significant U.S. Navy fighter of WW II, the Grumman F6F Hellcat entered service in early 1943. By the end of hostilities, it would account for the destruction of over 5,000 enemy aircraft, almost 75 percent of all the Navy/Marine Corps air-to-air victories. Here, a Hellcat is about to take off from Yorktown (CV-10). USN 248440



Leroy Grumman, Naval Aviator #1216 and founder of the Grumman Aircraft Engineering Corp., built some of the Navy's most famous aircraft.

Grumman Aerospace Corporation

USN 248440



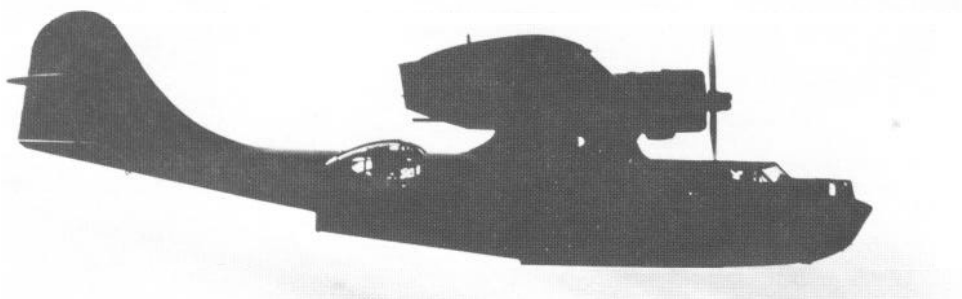
Boyington USMC 302309



Maj. Gregory "Pappy" Boyington's Black Sheep squadron, flying from the island of Vella Lavella, offered to down a Japanese Zero for every baseball cap sent to them by major league players in the World Series. They received 20 caps and shot down many more enemy aircraft. Boyington was the Marine Corps' top ace of WW II. USMC 68317

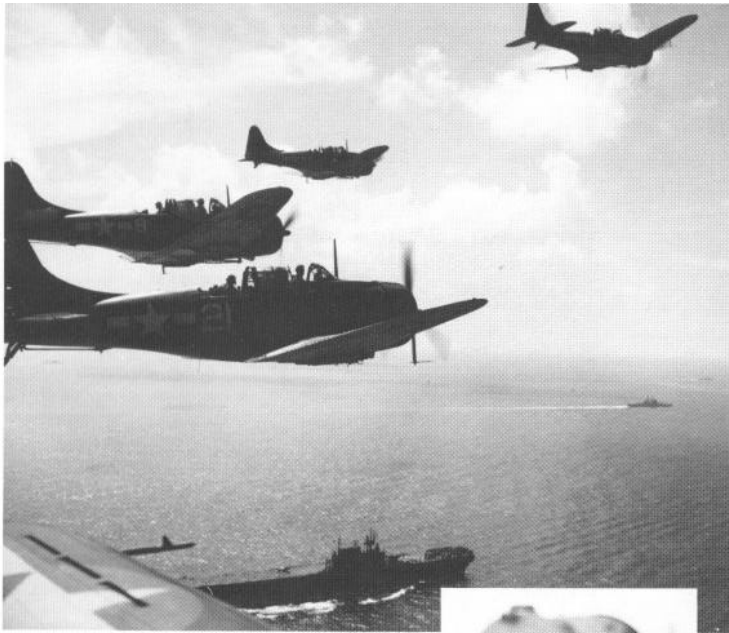


Taff



PBY Catalina flying boats from Black Cat squadrons prowled the south and southwest Pacific at night in search of Japanese combatant and cargo vessels. They left a trail of burning ships from the Solomons to the Philippines. Cdr. C.O. Taff commanded the first official Black Cat squadron, Patrol Squadron 12. USN 11379

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The fast carrier task force had come to be recognized as the cutting edge of naval power in the Pacific. Adm. Marc A. Mitscher was one of the most highly regarded of carrier task force commanders and an acknowledged master of the tactical employment of Naval Air power. USN 251067



Mitscher



Nonrigid airships called blimps were used extensively to control the submarine menace.

This German U-boat met its end in the Atlantic at the hands of Consolidated PB4Y pilots and crewmen. USN 44360





Cdr. David McCampbell became the Navy's top ace of WW II, with 34 victories to his credit. McCampbell was also awarded the Congressional Medal of Honor. USN 258195



WW II produced many technical advances in Naval Aviation. Here, a Martin PBM Mariner makes a spectacular climbout using jet-assisted takeoff (JATO).



As the war moved ever closer to the Japanese homeland, the opposition became more desperate. Here, the escort carrier Sangamon (CVE-26) has a close call as a stricken kamikaze aircraft plunges into the sea close aboard. USN 700580

Naval Aviation is well represented on VJ day in a massive flyover of the U.S. fleet in Tokyo Bay, September 2, 1945. NA 80-G-421130

