in this issue:
The Carrier Navy

This magazine is intended for 10 readers. All should see it as soon as possible. PASS THIS COPY ALONG

MAY 1965
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Front Cover: High Octane—RAS-C Vigilante refuels from A3B Skywarrior high above its mobile air station, U. S. Seventh Fleet aircraft carrier USS Ranger (CV 61) during operations in the South China Sea.

At Left: Ship to Ship—Crew members of USS Shangri La (CVA 38) ride launch across the Bay of Pollenza on the Island of Majorca to the carrier USS Forrestal (CVA 59) for briefing on Sixth Fleet operations in the Med.

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JOINT ACTION IN VIETNAM

Carrier Strike Force

Events over the past months have again drawn Navy carrier strike forces into responsive action against communist-controlled North Vietnam.

Seventh Fleet carrier planes bombed and strafed guerrilla staging areas north of the 17th parallel, in response to communist armed aggression against South Vietnam.

The events that began on 7 February are now an episode in history. Here's a capsule report of those eventful days, and the action that followed.

The recent guerrilla actions were perhaps the most aggressive yet conducted, particularly against Americans. At 0200 on 7 February the Viet Cong attacked two South Vietnamese airfields, two U.S. barracks areas, several villages and one town, causing substantial casualties. The attacks were staged in three areas, including a U.S. military compound and nearby airstrip at Pleiku; villages and aviation gas tanks at Tuy Hoa and villages near Nhatrang—all in South Vietnam.

U.S. casualties in the Pleiku area were eight killed and 129 wounded, plus five helicopters destroyed, nine to 11 damaged, and six fixed-wing aircraft damaged.

Most of the destruction in the Pleiku area was caused by mortar fire, launched from a position outside the compound perimeter. Several Viet Cong troops, in addition, infiltrated the camp area under cover of darkness and planted explosives. An American sentry detected them and opened fire, thus saving the lives of many of the approximately 180 U.S. military advisors—most of whom were asleep. The sentry later died of wounds he received.

The other U.S. dead were enlisted men trapped in a shelled barracks. In all there was major damage to seven barracks, moderate damage to 10 others, and minor damage to 35 buildings.

Immediately following the attacks, U.S. representatives in Saigon met with representatives of the South Vietnamese government. They jointly agreed that responsive action was required.

About six hours after the attacks President Johnson met with Secretary of Defense Robert S. McNamara and other members of the National Security Council. The President subsequently ordered action by United States forces in concert with South Vietnamese forces.

At 1400 7 February aircraft were launched from the carriers uss Ranger (CVA 61), Hancock (CVA 19) and Coral Sea (CVA 43), which were steaming in the South
China Sea about 100 miles off the coast of South Vietnam and south of the 17th parallel.

A total of 49 aircraft, including A-4 Skyhawks and F-8 Crusaders from Coral Sea and Skyhawks, Crusaders and two reconnaissance planes from Hancock, carried out 49 sorties against Donghai in the southern part of North Vietnam. This area has been used by the Hanoi regime as a staging base, where guerrillas and equipment are dispatched down infiltration routes leading through Laos into South Vietnam. Ranger planes launched for this strike aborted their mission due to adverse weather conditions.

Other U. S. and South Vietnamese aircraft were also prevented from attacking their assigned targets because of poor weather conditions.

Announcing the strike before a nationally televised press conference, Secretary McNamara stated that it was quite clear the communists intended their attacks as a test of will and a clear challenge of the political purpose of both the U. S. and South Vietnamese governments.

"It was a test and a challenge, therefore, which we couldn't fail to respond to," he said, "without misleading the North Vietnamese as to our intent and strength of purpose to carry out that intent."

The Defense Secretary reported that captured documents the U. S. has obtained from individuals infiltrating from the north, plus prisoner-of-war reports obtained in recent months, indicate that the volume of infiltration has expanded substantially recently. The number of Viet Cong infiltrating South Vietnam in 1964 was probably double the 1963 figure.

"This, plus other evidence, leads us to believe that Hanoi (capital of North Vietnam) has consciously and purposely stepped up the pressure against the South Vietnamese," he said. "And we have every reason to believe, based on our intelligence sources, that the attacks on Pleiku, Tuy Hoa and Nha Trang were ordered and masterminded directly from Hanoi."

Mr. McNamara assured the nation that our forces are on the alert and prepared.

Admiral Ulysses S. Grant Sharp, Jr., Commander in Chief, Pacific, was in charge of the strike operations. One A-4 from Coral Sea was lost, with the pilot reported
ON THE MOVE—Vietnamese soldiers, U. S. advisors resupply troops on front lines by means of helicopter while under fire from Viet Cong guerrilla band.

missing, and seven other aircraft were damaged by antiaircraft fire.

President Johnson ordered that all U. S. dependents be brought home from South Vietnam, and that a Marine Corps Hawk surface-to-air missile battalion be deployed there.

IN HIS STATEMENT, President Johnson said it is quite clear that Hanoi has undertaken a more aggressive course of action against both South Vietnamese and American installations, and against Americans who are in South Vietnam assisting the people of that country to defend their freedom.

"We have no choice now but to clear the decks and make absolutely clear our continued determination to back South Vietnam in its fight to maintain its independence," he said.

The following day—8 February—the Viet Cong continued their raids. They fired 15 mortar shells at the U. S. Army helicopter base at Soc Trang, but no casualties or damage resulted.

MEANWHILE, Mr. McGeorge Bundy, the President's special assistant for national security, visited the areas which were attacked by the Viet Cong the previous day. He was present in South Vietnam on a special mission when the communists initiated their coordinated attacks, but was not endangered by them. Mr. Bundy also visited U. S. casualties in hospitals.

On his return to Washington that day, Mr. Bundy reported to the National Security Council that the communists represent the gravest kind of danger to the freedom and future of South Vietnam.

Shortly before this address, 24 South Vietnamese planes, accompanied by U. S. Air Force fighters, bombed a military communications center in Vinh Linh, North Vietnam, in a follow-up to the previous day's strike.

On 9 February the Viet Cong shot down three American helicopters. One Army crewman was killed and eight other Americans injured.

The helicopter casualties came as the first planeloads of American dependents were departing Saigon airport, and as the bodies of nine dead American soldiers commenced their final homeward journey.

At about the same time, the Marine Hawk battalion, arriving from Okinawa, was made operational at Danang air base, which is 50 miles south of the 17th parallel dividing North and South Vietnam. The Marines will provide antiaircraft defense against possible communist sorties from the North, using the 20-plus-mile range missiles.

Viet Cong marauders next struck at an American barracks in Qui Nhon, where 62 non-combat troops were billeted. Striking again at night, the guerrillas exploded two large bombs on the sides of the building, demolishing it. The four-story structure collapsed into a heap of rubble about 30 feet high.

Nineteen of the 62 men were not
inside at the time, and 22 survivors were rescued. Seabees and Army engineers combed the wreckage for the remaining 21 men.

During rescue operations a fleet of about 50 Viet Cong junks, commandeered from local fishermen, attempted an amphibious landing near the site to attack the rescue party. They were driven off by Vietnam gunboats and U.S. copters.

Response for this latest assault was swift. A total of 160 U.S. and South Vietnamese planes again flew northward to bomb communist installations.

In the three and one-half hour strike, three Navy planes were lost—two to ground fire and one in an emergency landing.

This time the air strikes were aimed at other staging areas in North Vietnam adjacent to infiltration routes. It was the biggest single attack yet staged against the communists.

A WHITE HOUSE statement reported: “United States air elements joined with the South Vietnamese Air Force in attacks against military facilities in North Vietnam used by Hanoi for the training and infiltration of Viet Cong personnel into South Vietnam.

“These actions by the South Vietnamese and United States governments were in response to further direct provocations by the Hanoi regime.

“Since 8 February a large number of South Vietnamese and United States personnel have been killed in an increased number of Viet Cong ambushes and attacks. A district town in Phuoc Long Province has been overrun, resulting in further Vietnamese and United States casual-

ties. In Qui Nhon, Viet Cong terrorists, in an attack on an American military billet, murdered Americans and Vietnamese. In addition, there have been a number of mining and other attacks on the railway in South Vietnam as well as assassinations and ambushes involving South Vietnamese civil and military officials.

“The United States Government has been in consultation with the Government of South Vietnam on this continuation of aggressions and outrages. While maintaining their desire to avoid spreading the conflict, the governments felt compelled to take the action described.”

What happens next may be stale news before this report is in print. But this report will have no less meaning as to why our forces in WestPac are on constant alert.

—Bill Howard, JO1, USN

FLOATING NAS—Planes from USS Coral Sea (CVA 43) and Ranger (CVA 61) hit military targets in North Vietnam.

If you’re willing to stretch a point ever so slightly, it might be said that the Navy had an aircraft carrier long before it had airplanes. The first such carrier cost the government $150 and was worth every cent—but not much more.

Here’s how it all came about:

For some time during the Civil War, the authorities had been annoyed by importunate daredevils who insisted upon the military value of balloons. It would be possible, they claimed, by ascending in the air to gain a panoramic view of the enemy and to detect its early intentions. The powers-that-be were pretty doubtful of the whole idea but were finally induced to permit, on 11 Nov 1861, a certain Thaddeus Lowe to make his observations from a balloon.

Earlier that year the Navy had bought, for $150, a ship by the name of George Washington Parke Custis. This was converted to a combination coal barge and balloon boat. It is unlikely, however, that it will be necessary for history books to be rewritten to any great extent for, although a balloon can be considered an aircraft and Custis certainly carried Lowe’s balloon, Custis will never displace Langley as the Navy’s first official aircraft carrier.

This is Lowe’s story: “I left the Washington Navy Yard early Sunday morning, towed out by the steamer Coeur de Lion, having on board competent assistant aeronauts,
together with my new gas generating apparatus, which, though used for the first time, worked admirably. We located at the mouth of Mattawoman Creek, about three miles from the Virginia shore. Yesterday proceeded to make observations accompanied in my ascensions by (Brigadier) General (Daniel E.) Sickles and others. We had a fine view of the enemy's camp-fires during the evening, and saw the rebels constructing new batteries at Freestone Point.

THIS PRESUMABLY was the end of the Navy's interest in Civil War aircraft carriers. (The use of observation balloons is another story which we won't go into here.)

Except for this single isolated oddball incident, the idea of naval aviation really didn't take hold until 1910 when Eugene Ely made his historic flight from the old cruiser Birmingham. Two months later, in January 1911, Ely landed aboard the armored cruiser Pennsylvania. It wasn't long afterwards that naval aviation became a reality. However, not until a little over four years after World War I did carrier aviation begin its rapid growth. They were the years which witnessed startling aeronautical innovations and brought about the beginnings of our carrier fleet.

For a number of years, naval minds at home and abroad had been speculating on the possibility of carrying airplanes to sea and launching them from ocean-borne platforms. It was a tantalizing prospect and, if successful, would open wide military vistas to the nation which succeeded in perfecting it.

After the war, the U.S. Navy turned its attention to the idea, and the collier (coal hauling vessel) Jupiter was converted into the carrier USS Langley (CV 1). In the early '20s an improved catapult was installed aboard the flattop.

IT WAS A DAY to be remembered by naval flyers when, in October 1922, Langley—the first aircraft carrier of the U.S.—stood out to sea and started the development of the Navy's basic carrier operations. Because of her unlovely lines, she quickly became known as the "Covered Wagon." But upon her deck naval flying grew, and "firsts" appeared with startling regularity.

On 17 Oct 1922, Lieutenant Commander V. C. Griffin, in a VE-7-SF, earned the distinction of being the first flyer to take off from her deck.

Nine days later, with Langley underway, LCDR Godfrey Chevalier, perhaps in recognition of the fact that no one had worked harder than he on perfecting the arresting gear, made the first landing on the carrier's deck.

Commander Kenneth Whiting, first to be successfully catapulted from the deck, took off at the controls of a PT aircraft on 18 Nov 1922.

The Navy, happy with the results of the Langley experiments, incorporated many improvements in Lex-

PLANE AWEIGH—An A3B Skywarrior catapults from USS Franklin D. Roosevelt (CVA 42). Below: USS Enterprise (CVAN 65) is world's biggest warship.
PACIFIC 'ISLANDS'—USS Oriskany (CVA 34) steams Pacific waters. RH. Hancock (CVA 19) patrols South China Sea.

Until 1929, the true role of CVs in the Fleet was only hinted. And then came Fleet Problem IX, when Saratoga indicated the potential of these ships. Saratoga after making a wide sweep maneuver, launched planes which bombed, theoretically, the Panama Canal and rendered it inoperable (also theoretically).

The Navy, from that time on, conducted intensive studies on a wide variety of carrier tactics. Some of the very same procedures were followed by the Japanese Navy later in its attack on Pearl Harbor.

Then came World War II and the U.S. emerged as the world's first naval power. As the war progressed, carriers were essential to three of the principal missions assigned to naval aviation:

- Air strikes—Planes attached to fast carrier task forces were discovered, at the beginning of the war, to be most effective.
- Antisubmarine warfare—Hunter-killer planes attached to small carrier task forces always were on the lookout for enemy subs.
- Air support to amphibious operations—Planes flying from jeep carriers provided close air support for amphibious landings as well as logistic support for fast carrier forces and advance bases.

As technological developments came about in the post-war era, Essex class carriers became obsolete. To modify these carriers so they could meet their new operating requirements, an improvement program, called Project 27A, was begun in October 1947.

The principal changes were directed toward increasing the carriers' capabilities so that heavier aircraft (up to 40,000 pounds gross weight) could operate from the flattops. The flight decks were strengthened and the five-inch guns on the flight deck were removed to
SEA QUEENS—Attack carriers such as *USS Kitty Hawk* (CVA 63) and *USS Constellation* (CVA 64) are mobile jet bases.

decrease topside weight (all other guns were retained). The change also provided more deck space for parking planes and increased safety aspects of the landing area. (About this time it was decided that carriers didn’t need guns for protection—they would use their planes and escort ships). Other changes included special provisions for jet aircraft, such as jet blast deflectors, increased fuel capacity and jet fuel mixers.

In the immediate post-war years, the first U.S. tests of jets for shipboard operations were conducted aboard *USS Franklin D. Roosevelt* (CVB 42), using the FD-1 Phantom jet aircraft. As the experiments continued, they inevitably led to a carrier-based all-jet squadron. On 5 May 1948, Fighter Squadron 17A, equipped with 16 FH-1 Phantoms (redesignated from FD-1 in 1947), became the first carrier qualified jet squadron in the U.S. Navy. It took three days to do it, but all squadron pilots qualified aboard *USS Saipan* (CVL 48) with a minimum of eight landings and takeoffs each.

Project 27A originally was intended to apply to more than just nine of the *Essex* class carriers, but with the development of the steam catapult and more advanced aircraft coming into operation, the project had to be modified to meet future needs. Thus, Project 27C was initiated.

*USS Hancock* (CV 19) was the first U.S. carrier to receive the new “steam slingshot”, followed by *Intriguid* (CV 11) and *Ticonderoga* (CV 14).

Even as these changes were made in the three carriers, the Bureau of Aeronautics proposed, in mid-June 1952, that a new flight deck design be installed in *USS Antietam* (CV 36). The previous May, both jet and propeller type aircraft had been tested on a simulated angled deck aboard *USS Midway* (CVB 41).

*Antietam’s* deck was extended outboard on the port side from the normal flight deck, allowing aircraft to land at a 10-degree angle from the ship’s centerline. At first it was called a canted deck, but the term officially gave way to the now more familiar “angled deck.” The advantages were so obvious from the beginning that men wondered why they hadn’t thought of the idea years earlier. By eliminating the centerline elevators and...

HOT SPOT—Crew fights bomb damage aboard *USS Saratoga* during battle.

ON THE AIR—Arresting gear officer watches landing. Miniature radio keeps him in touch with control units.
using one or more deck edge elevators (which were not installed in Antietam), more elevators were available to bring up spares and take others down to the hangar deck. And, once landed, the planes could easily taxi onto a starboard deck edge elevator without halting flight operations.

It was also possible to catapult and land aircraft simultaneously, which gave the carrier improved combat readiness.

The pilots were given an extra margin of safety: No longer would they be in danger of crashing into gassed and armed planes parked forward of the landing area.

Other changes in this project included: The reintroduction of the hurricane bow of the original Saratoga and Lexington; air conditioning and sound proofing for more comfortable and efficient island spaces; and improved deck lighting.

Lexington, Shangri La and Bon Homme Richard all received the improvements, and they were so successful that Hancock, Intrepid and Ticonderoga returned to the yards for this new conversion.

The trend extended to the Midway class. In May 1954, Franklin D. Roosevelt entered Puget Sound Naval Shipyard for the conversion, followed by Midway in September 1955. Coral Sea was the last aircraft carrier of World War II design to be reworked under the post-war modernization program. She emerged in January 1960.

While the carriers were undergoing this physical change, they received new missions. To reflect this change, they were given new designations. In October 1952 the then familiar designations CV and CVB were replaced by CVA (attack aircraft carrier). Anti-submarine support aircraft carrier became a new classification in July 1953. The following August, five other CVAs were given the CVS designation (for ASW support aircraft carrier).

July 1955 marked the beginning of the end of escort carriers as combat ships of the Fleet. Thetis Bay (CVE 90) became CVHA 1 and later LPH 6. Thirty-six escort carriers, designated CVE, CVU and CVHE, were changed to AKV for cargo ship and aircraft ferry, and by May 1959, the CVE designation was abolished.

On 30 Sep 1957 the last of the light carriers, uss Saipan (CVL 48), was decommissioned, and that designation, nearly two years later, was stricken from the Navy register when four support carriers and seven light carriers were changed to auxiliary aircraft transports (AVTs).

All this reflected Navy thinking and planning. The programs were steps in a schedule designed

| Capsule History |

Below you'll find a quick rundown on carriers from the first through number 66. To some it'll bring back nostalgic memories; to all of the Navy it points up the progress and development of the carrier forces.

- USS Longley (CV 1)—This ship was commissioned on 7 Apr 1913, but not as an aircraft carrier. It was commissioned Jupiter, Fleet collier number three. The designation was changed to CV on 11 Jul 1919, and the ship was commissioned Longley (CV 1) on 21 Mar 1922. In 1937 she was converted to the seaplane tender AV 3. On 27 Feb 1942, Longley was sunk by Japanese aircraft south of Java.
- USS Lexington (CV 2)—Originally this ship was under construction as Constitution. On 10 Dec 1917 she was renamed Lexington and, on 1 Jul 1922, was designated CV 2. She was commissioned on 14 Dec 1927. After sustaining severe damage at the battle of the Coral Sea in May 1942, Lexington was sunk by our own destroyers.
- USS Saratoga (CV 3)—Began as a battle cruiser. Saratoga was designated a CV on 1 Jul 1922, and commissioned on 16 Nov 1927. She was sunk in the atomic bomb test in July 1946.
- USS Ranger (CV 4)—The first U. S. vessel designed and constructed as an aircraft carrier, she was commissioned on 4 Jun 1936, and sold in January 1947.
- USS Yorktown (CV 5)—Commissioned on 30 Sep 1937, she was lost in action after the battle of Midway on 7 Jun 1942.
- USS Enterprise (CV 6)—She served as a CV from her commissioning on 15 May 1938 until 1952 when her designation was changed to CVA. In 1953, she was made a CVS. She was decommissioned in 1947 and sold for scrap in 1958.
- USS Wasp (CV 7)—Commissioned on 25 Apr 1940, this ship was sunk on 15 Sep 1942 by U. S. ships after sustaining severe damage near Espiritu Santo, New Hebrides.
- USS Hornet (CV 8)—One week after her first birthday this ship was sunk at the battle of Santa Cruz Islands. She was commissioned on 20 Oct 1941, and sunk on 27 Oct 1942.
- USS Essex (CV 9)—Essex was the first aircraft carrier commissioned after the United States entered World War II. She was commissioned on 31 Dec 1942. In March 1960 she was redesignated a CVS, and is currently assigned to the Atlantic Fleet.
- USS Yorktown (CV 10)—This ship was originally under construction as the Bon Homme Richard, but her name was changed to Yorktown on 26 Sep 1942. She was commissioned on 10 Apr 1943, made a CVA in October 1953, and later a CVS. She is still active in the Pacific Fleet.
- USS Intrepid (CV 11)—She was commissioned on 16 Aug 1943, and her designation changed to CVS in 1962. She is now assigned to the Atlantic Fleet.
- USS Hornet (CV 12)—Hornet was commissioned on 29 Nov 1943. In October 1952 she was redesignated as a CVA. Now a CVS, she is assigned to the Pacific Fleet.
- USS Franklin (CV 13)—This ship was commissioned on 31 Jan 1944. In October 1952
controls, it was necessary to stop the heavier aircraft in shorter run-out in case the aircraft came in too fast. This had been found rather hard on the plane. The new system was set for the weight of the landing aircraft, so that a 60,000-pound plane would pull out no more wire than a 10,000-pounder.

When USS Forrestal (CVA 59) was commissioned in October 1955, her design incorporated the sum of ex-

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**of the Aircraft Carrier—By the Numbers**

- USS Hancock (CV 19)—This ship was originally named Ticonderoga, but on 1 May 1943, was renamed Hancock. She was commissioned on 8 May 1944, and her designation was changed to CVA in October 1952. She is now active in the Pacific Fleet.
- USS Bennington (CV 20)—Commissioned on 6 Aug 1944, Bennington was redesignated a CVA in October 1952. She was inactivated in 1954, but is now active as a CVS in the Pacific Fleet.
- USS Boxer (CV 21)—This ship was first commissioned on 16 Apr 1945, redesignated a CVA in October 1952 and again redesignated as LPH 4 in January 1959. Boxer is now serving in the Atlantic Fleet Amphibious Force.
- USS Independence (CV 22) She was originally under construction as the cruiser Amsterdam, but her name and designation were changed in early 1942 to Independence (CV 22). On 15 Jul 1943 she was changed to a CVS. Battered by atomic bombs during Operation Crossroads, the ship was destroyed on 27 Jan 1951.
- USS Princeton (CV 23)—CL 61 was the original designation of this ship. In 1942 her original name of Tellahouse was changed, along with her designation, to Princeton (CV 23). She was commissioned on 29 Feb 1944. On 15 Jul 1943 she was redesignated CVL and on 24 Oct 1944, she was lost at the Battle for Leyte Gulf. After sustaining heavy damage the ship was sunk by U. S. forces.
- USS Bellerophon (CV 24)—This ship was changed from CL 76 to CV 29 on 16 Feb 1942, and from New Haven to Bellerophon on 25 Feb 1943. Commissioned 31 Mar 1943, she was redesignated CVL on 17 Nov 1943. In 1943 this ship was transferred to France on a loan basis under the Mutual Defense Assistance Program.
- USS Cowpens (CV 25)—Originally under construction as Huntington (CL 77), she became Cowpens (CV 25) in March 1942. On 15 Jul 1943 she was redesignated CVL 25, and in January 1949 she was placed in the Reserve Fleet at San Francisco. She was redesignated AVT 1 on 7 May 1959.
- USS Monterey (CV 26)—This ship was originally Dayton (CL 78). In March 1942 she became Monterey (CV 26) and later, in July 1943, CVL 26. Commissioned on 17 Jun 1943, Monterey is now in the Atlantic Reserve Fleet. In May 1960 she was redesignated as AVT 2.
- USS Langley (CVL 27)—This ship underwent many changes. She was originally Fargo (CL 85), then Crown Point (CV 27), and finally Langley (CVL 27) on 15 Jul 1943. She was commissioned 31 Aug 1943. In January 1951 she was transferred to France under the Mutual Defense Assistance Program.
- USS Cabot (CV 28)—Originally Wilmington (CL 79), this ship became Cabot (CV 28) in June 1942. Her designation was changed to CVL shortly before she was commissioned on 24 July. She was placed in the Reserve Fleet at Philadelphia in 1955. In May 1959 she was redesignated as AVT 3.
- USS Bataan (CVL 29)—Buffalo (CL 99) was the original name and designation of this ship. Her designation was changed to CVL in June 1942 and her name to Bataan in June 1943. In July she was redesignated CVL and finally commissioned on 17 Nov 1943. She went into the Reserve Fleet at

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**SUB HUNTER—USS Yorktown (CVS 10) hunts sub with British destroyers.**
so, many further changes took place. When Forrestal was first authori-
ized in March 1951, she was to have an axial or straight type deck. Archi-
tects went back to original Langley, Ranger and Long Island designs by
weeping the flight deck clear of an island structure. The carrier was to
have a small island on an elevator apparatus, which would be lowered
during flight operations.

But the flush deck design barely left the drawing board before it was
changed. The new design provided a maximum landing area which
eliminated the hazard of island superstructure—a common problem
on an axial-type flight deck.

With the development of the angled deck, Forrestal’s design was changed again. The new angled deck gave Forrestal a 1039-foot
length instead of the 1030 feet which was originally planned for her. She was christened 11 Dec 1954 and commissioned 1 Oct 1955.

In 1953 Secretary of the Navy Dan A. Kimball announced that a new
carrier, similar to Forrestal, would be built and named Saratoga (CVA
80). This new carrier was christened at the New York Naval Shipyard
and commissioned 14 Apr 1956.

From USS Langley to USS America: Sea/Air Power (Continued)

San Francisco and, eventually, was scrapped.
• USS San Jacinto (CVL 30)—This ship was
changed from CL 109 to CV 30 on 2 Jun
1942, and from New York to Repulse on 22
Jun 1942. On 6 Jan 1943 her name was
changed to San Jacinto. Later that same
year her designation was changed to CVL.
She was commissioned on 15 Dec 1943 and
is now in the Reserve Fleet at San Fran-
cisco. AVT 5 is her latest designation.
• USS Ben Homme Richard (CV 31)—Com-
missioned on 26 Nov 1944, the ship was
redesignated CVA in October 1952. She went
into the Reserve Fleet on the West Coast in
1953, but was later given an angled deck
taken out of retirement. She is now
active in the Pacific Fleet.
• USS Leyte (CV 32)—Crown Point was the
original name of this ship. It was changed,
however, to Leyte on 8 May 1945. She was
designated CVA in October 1952 and
CVS in July 1953. Commissioned on 11
Apr 1946, the ship is now in the Reserve
Fleet.
• USS Oriskany (CV 34)—She was com-
missoned on 25 Sep 1950 and in October
1952 was changed to CVA. She entered the
Reserve Fleet in 1955, but is now with the
Atlantic Fleet.
• USS Lake Champlain (CV 39)—Redesig-
nated CVA in October 1952, this ship is now
active in the Atlantic Fleet as a CVS. She
was commissioned on 3 Jun 1945.
• USS Tarawa (CV 40)—Commissioned on
8 Dec 1945, she was redesignated CVA in
October 1952, and CVS in January 1955.
She was designated AVT 12 in 1961 and
decommissioned in May 1962.
• USS Midway (CVB 41)—The first of her
class, she was changed from a CV to CVB
on 15 Jul 1943, and was commissioned on
12 Sep 1945. In October 1952 her designa-
tion was again changed, this time to CVA.
She is an active duty in the Pacific Fleet.
• USS Franklin D. Roosevelt (CVB 42)—
Originally named Coral Sea (CV 43), she
was changed to CVB in 1943, commissioned
in October 1945 and redesignated CVA in
1952. She was in the Reserve Fleet for a
short time, and was later modernized. She
is now active in the Atlantic Fleet.
• USS Coral Sea (CVB 43)—Coral Sea was
changed from a CV on 15 Jul 1943, and was
commissioned on 1 Oct 1947. In 1952 she
was redesignated CVA. In 1957, she
underwent conversion at Puget Sound and
was recommissioned March 1960. She is now
in the Pacific Fleet.
• CV 44—Construction cancelled on 11 Jan
1943.
• USS Valley Forge (CV 45)—This ship was
commissioned on 3 Nov 1946, and her
designation was changed to CVA in Novem-
ber 1952. She is now active in the Pacific
Fleet as LPH 8.
• CV 46—Construction cancelled on 12 Aug
1945.
• USS Philippine Sea (CV 47)—Originally
named Wright, she was renamed Philippine
Sea on 12 Feb 1945. This ship was redesign-
nated CVA in October 1952, and later re-
designated CVS. She was placed in the
Pacific Reserve Fleet in 1959 as AVT 11.
• USS Salute (CVL 48)—Commissioned on
16 Jul 1946, this ship is now undergoing
conversion to AGM (major communications
relay ship).
• USS Wright (CV 49)—This ship was
commissioned on 9 Feb 1947 and is now in
the Atlantic Fleet as a command ship. Her
conversion for that specialty was completed
in 1963. Her designation is now CC 2.
• CV 50 through 57—Construction can-
celled on 27 Mar 1945.
• United States (CVA 58)—Construction
cancelled on 23 Apr 1949.
• USS Forrestal (CVA 59)—The first of her
class, she was commissioned 1 Oct 1955,
and is now active in the Atlantic Fleet.
• USS Saratoga (CVA 60)—This Pacific
Fleet ship was commissioned on 14 Apr
1956.
• USS Ranger (CVA 61)—Ranger was com-
missoned on 10 Aug 1957, and is assigned
to the Pacific Fleet.
• USS Independence (CVA 62)—Launched
in June 1958, she was commissioned 10 Jan
1959 and is active in the Atlantic Fleet.
• USS Kitty Hawk (CVA 63)—The first of
a new class of attack carrier, Kitty Hawk
was commissioned 29 May 1961. She is
assigned to the Pacific Fleet.
• USS Constellation (CVA 64)—Commissi-
ned 27 Oct 1961, this ship is in the
Pacific Fleet.
• USS Enterprise (CVAN 65)—This first
central powered aircraft carrier was com-
misioned 25 Nov 1961 and will be transfe-
rred to the Pacific in the latter part of this
year.
• USS America (CVA 66)—The latest at-
tack aircraft carrier to join the Fleet, Amer-
ica was commissioned in January this year.
Sister ship Ranger (CVA 61) had one outstanding exception to distinguish her when she was commissioned 10 Aug 1957. The angled deck was altered slightly so that her over-all length was 1046 feet compared to the 1039 of Forrestal.

Another improvement, an all-welded aluminum elevator, was installed on the port side and replaced the conventional steel types on the other Forrestal class carriers.

Construction of uss Independence (CVA 62) was begun in a smaller drydock at New York Naval Shipyard. The island was not installed until she was moved to a larger dock. Independence was commissioned 10 Jan 1959, the fourth carrier of the Forrestal class to join the Fleet.

Kitty Hawk (CVA 63) and Constellation (CVA 64) essentially were designed along Forrestal lines, but they were developed into a separate class, the Kitty Hawk class. The major difference: These ships were armed with the Terrier surface-to-air guided missile.

The over-all fuel capacity of the Kitty Hawks is greater than the Forrestals, but aviation gasoline capacity is a little less. The angled part of the flight deck is some 40 feet longer while there is only a one or two foot difference in overall length. The elevators and catapults have greater capacities than those on the Forrestal class carriers.

On 4 Feb 1958, Secretary of the Navy William B. Franke announced that the world's first nuclear powered aircraft carrier would be named Enterprise (See page 2). That same day her keel was laid.

Right from the first, the designers and builders appeared to have hit the jackpot. For the first time the customary builder's trials of a major combat ship were eliminated, and the ship was presented to the Navy for acceptance trials on her first trip to sea. Six days later, after she had made a clean sweep of the trials, Enterprise returned to Newport News with a giant broom attached to her mastshead. She was commissioned 25 Nov 1961 at Norfolk. 

uss America (CVA 66), commissioned on 23 Jan 1965, and the most recent carrier to join the Fleet, is expected to lead the way to continued freedom of the seas. This carrier will be followed by uss John F. Kennedy, scheduled to be launched as CVA 67 in 1967.

-John Ramsey, JO1, USN

MAY 1965

The ABC's of Navy Carrier Designations

In July 1920, while uss Langley was being converted from a collier, she was designated CV—aircraft carrier first line. But after 1931, the designation CV simply meant aircraft carrier.

By the time the U.S. entered World War II, carriers were generally in two sizes. To distinguish the smaller carriers from the larger ones, the Navy assigned the classification CVL—light aircraft carrier—to the smaller ones. As the war continued, larger carriers were built, and on 15 Apr 1945 the large aircraft carrier designation (CVB) came into existence. Thus by the end of the war there were three classifications for carriers—CVL, CV and CVB.

On 1 Oct 1952 all CVs and CVBs were changed to CVA, attack aircraft carrier. Anti-submarine support aircraft carrier (CVS) became a new designation in July 1953 and applied to those attack carriers assigned to ASW.

The last of the light carriers, uss Saipan (CVL 48) was decommissioned on 30 Dec 1957. The CVL designation was stricken from the register when, two years later, the classification of four support carriers and seven light carriers was changed to auxiliary aircraft transport, AVT.

During World War II another type of carrier came into existence, the escort or jeep carrier. There was always a need for planes and personnel overseas. And when a landing force went ashore, air support was needed until an airstrip could be built. The escort carriers supplied this support.

This type of ship began as aircraft escort vessel, AVG, and was first assigned 31 Mar 1941. The classification was changed to auxiliary aircraft carrier, ACV, on 20 Aug 1942, and on 15 Jul 1943 they received the familiar term CVE, escort aircraft carrier.

After 12 May 1955 some CVEs received the designation utility aircraft carrier (CU), and others, escort helicopter aircraft carrier, CVHE. In July of that year Thetis Bay (CVE 90) became CVHA 1, and was the first move in the eventual disappearance of escort carriers from the Fleet.

On 7 May 1959, 36 escort carriers (CVE, CVU and CVHE) were changed to cargo ship and aircraft ferry, AKV.

The first amphibious assault ships to be in commission were uss Boxer (LPH 4) and Princeton (LPH 5); both received their new classification from CVS in January 1959. uss Thetis Bay became LPH 6 in May of that year, followed by Valley Forge (LPH 8) in June 1961. Although uss Iwo Jima (LPH 2) and Okinawa (LPH 3) were not commissioned until 1961 and 1962, they were authorized before the older ships were reclassified.

VOICE OF COMMAND—USS Wright (CC 2), a former carrier, CVL 49, carries the most extensive communications facilities ever aboard ship.
In September 1960, the nuclear-powered attack aircraft carrier USS Enterprise (CVAN 65) was christened, but when she moved out of her dry dock at Newport News, she still had a long way to go before she would be ready to join the Fleet. Ahead were many months of sea trials and putting on the finishing touches.

In October 1961, she finished her initial phase of sea trials. With her commissioning the following month, the long-awaited event was achieved—the blending of the strike power of jet aircraft and missiles with the nearly unlimited cruising range and staying power of nuclear propulsion.

Enterprise is the second Navy surface ship to be nuclear powered. The guided missile cruiser USS Long Beach (CGN 9), placed in commission in September 1961, was the first. The guided missile frigate USS Bainbridge (DLGN 25) became the third when she was commissioned in October 1962. A fourth, the frigate Truxtun (DLGN 55), will be commissioned sometime in early 1966.

As the world's largest warship, Enterprise is 1101 feet long, 252 feet across the flight deck, and displaces 85,000 tons.

Eight pressurized-water nuclear power plants enable Enterprise to operate for extended periods. (After steaming nearly 200,000 miles, the carrier, for the first time, is now being refueled in Newport News, Va.) In combination, her eight reactors constitute the largest U. S. nuclear installation ashore or afloat.

A few of the more tangible assets which nuclear propulsion provides for Enterprise include:

- Logistic support requirements are sharply reduced; her aviation fuel capacity is hundreds of thousands of gallons greater than that of conventional carriers, which must use much of the tank space to carry bunker oil for their engines.
- She is capable of sustained high speed, making her less vulnerable to submarine attack.
- Since stacks aren't needed, more electronic gear was installed. In addition, it is possible to close the ship more completely when under attack, thus reducing danger of atomic radiation to the crew. (Firerooms aboard conventional carriers depend upon outside air for operation and make it impossible to completely seal the ship in case of nuclear, biological or chemical attack.)
- With the elimination of stack gases, air turbulence is greatly reduced in the landing approach area. Such gases have created problems aboard conventional carriers when operating high-performance aircraft.
- Along with her greater endurance and speed, the carrier's strategic and tactical flexibility is greater because she does not have to depend upon the frequent resupply of fuel.

All this was demonstrated when Enterprise, Long Beach and Bainbridge, forming nuclear Task Force One, sailed around the world on Operation Sea Orbit. Before leaving the Med, all three ships had taken on provisions and did not do so again until they reached the east coast of the United States.

Although an operation such as Sea Orbit would, theoretically, be child's play for nuclear powered vessels, the Navy wanted to be sure no unforeseen complications would arise during a long cruise by such ships.

Sailing around Africa, Task Force One made its first in-port visit at Karachi, West Pakistan. From there, it went to Australia, New Zealand, around South America and home. Sixty-five days and 30,000 miles after Sea Orbit had begun, the three ships pulled into Norfolk.

The modern attack carrier is a mobile floating base for aircraft. Planes taking off from her deck, armed with air-to-ground and air-to-air missiles, can deliver either conventional or nuclear-tipped weapons.

Add the facts we've already mentioned—Enterprise can move these aircraft near any trouble spot and keep them operating for much longer stretches without stopping operations to replenish and refuel—and you get some idea of the firepower such a ship is capable of delivering.
THE GALLERY—Rangermen watch ship's divers during helicopter recovery.

Ranger Rescues an Angel

Sharks have never been noted for their sociable tendencies, and most people make it a practice to avoid their company. But then, a guy can't always have life's little niceties.

A while back uss Ranger (CVA 61) was operating in the South China Sea when one of her helos had a little bad luck and ended up in the drink. The crew, all uninjured, were soon rescued by another Ranger angel. This left the helo bobbing upside down, suspended just below the surface by its emergency flotation gear.

Helos are worth quite a sackful of money, and though this one was a bit soggy it did not appear damaged beyond repair. Then too, the Navy would be very curious as to why the accident happened. So, when the crew members were safe aboard Ranger, salvage operations began on the copter.

uss George K. Mackenzie (DD 836) was the first ship on the scene. As she neared the downed bird a diver was sent out to bend a line onto the plane's tail wheel, which was conveniently protruding from the water.

In the meantime three of Ranger's explosive ordnance disposal divers had been down below climbing into their swimming gear and were now standing by. When the carrier arrived the divers entered the water and passed the helo's line to 40 Rangermen who pulled the bird alongside the number four elevator. They also inflated three life rafts inside the helo, making extra sure it wouldn't sink. Then, being very careful to avoid the sharp edges of the broken blades, they attached a manila line to the main rotor head.

Ranger Navymen on the hangar deck then attempted to right the helo by the old heave-ho method but, as it turned out, the sailor-power technique just couldn't cut the mustard. The operation was abandoned by the exhausted white-hats and the helo rolled a few degrees to its original position.

While all this was in progress a large crowd of catwalk superintendents had gathered and were taking in the action. Generally speaking, working types ignore kit-bitzers completely, since they can seldom offer anything constructive. But every rule has its exceptions.

"Shark!" Someone hollered from a gun tub.

At precisely that moment the three divers were in the process of attaching a wire rope to the rotor head. While Marines discouraged the sharks with rifle fire the divers finished their job in a remarkably short time and scrambled back up the rope ladder to the elevator.

All three breathed a sigh of relief, happy to have that job over and done. They stood, dripping wet, and watched while the wire was attached to the boat crane winch, the winch began to spin, and the wire rope snapped.

This was obviously one of those days. There was nothing for it but to go back in the water and do the whole thing over again. While the Marines checked their weapons, the divers climbed back down the ladder. This time they intended to attach several cables. Heavy duty cables. Enough was enough.

No sooner had the divers entered the water than one of their finny friends appeared. The ropes were attached in record time, but not before the Marines had driven off three interested sharks. Finally, the divers scrambled back aboard.

This time, when power was applied to the boat crane winch the helo slowly rolled over. Water poured out as she was lifted up. When the bird reached the hangar deck level a helo mechanic climbed aboard and dropped the landing gear. Three hours after the crash, the helo was back aboard.

A tip of the whitehat to the Ranger divers, Ensign Dennis P. Rejda, Chief Torpedoman's Mate Gerald C. Evans and Aviation Structural Mechanic First Class Jay C. Irving, for a fine job.

COPPER rests on the elevator.

MAY 1965
Ships and Planes

**Aircraft Carriers**

- **CVA 59 Class—USS Forrestal**
- **CVAN 65 Class**
- **CVS 10 Class—USS Yorktown**
- **CVS 11 Class—USS Intrepid**

**Carrier Based Navy Planes**

- **F-8 CRUSADER**
  - All-weather fighter
- **A-1 SKYRAIDER**
  - Prop-driven attack plane
- **A-4 SKYHAWK**
  - Single-seated light attack bomber
- **C-1 TRADER**
  - Utility aircraft for supplies and personnel
- **E-2A**
  - All-weather early
- **E-1B**
  - Early warning
- **F-4 PHANTOM**
  - Two-seated interceptor and attack bomber
- **RASC**
  - Two-seated Navy

Note: For simplification, series numbers of most models have been omitted.

Prepared by ALL HANDS Magazine
of the Carrier Navy

- USS Enterprise
- CVA 63 Class—USS Kitty Hawk

- CVA 19 Class—USS Hancock
- CVA 41 Class—USS Midway

* Being phased out.

- VIGILANTE
  reconnaissance aircraft

- F-111
  Proposed all-service interceptor/bomber

- HAWKEYE
  warning aircraft

- A-3 SKYWARRIOR*
  Heavy attack bomber

- A-7
  Proposed light attack aircraft

- TRACER
  Navy aircraft

- A-6 INTRUDER
  Two-seated all-weather attack bomber

- S-2 TRACKER
  Four-seated submarine search and attack plane

MAY 1965
It's going to be a great day for flying.

"Flight quarters, flight quarters, all hands man your flight quarters stations." It doesn't matter which carrier you're on. The words are much the same and the boatswain has made the announcement many times before. The hour is usually early.

Up on the roof night check maintenancemen, who have spent the dark hours with their birds, close up tool boxes and head below to chow down and sack out.

The flight deck is quiet. High above the roof, jutting out from the after section of the island, the primary flight control booth is vacant. A few sleepy-eyed seamen are out for a stroll in the fresh air. They won't be there later.

It's going to be a great day for flying.

All Hands appear on deck. Flight quarters is called 90 minutes or so before the first launch, so there is no great rush. Everyone has time to tap the coffee pot.

They wear colored jerseys, either red, green, blue, brown, white, yellow or checkered. If you know the code you can tell their specialties and position on deck at a glance.

During air operations a signal from a man in a yellow jersey is an unquestionable order, obeyed explicitly by everyone from the senior pilot down to the greenest airman deuce. And if the senior pilot disagrees with a signal he'll argue the point later.

A Corpsman, decked out in a white jersey with a red cross, stands by beneath the big BEWARE OF PROPS AND JET BLAST sign on the island. Nearby, another Navyman is climbing into an asbestos hot suit. Sobering.

A few blueshirts may also be seen, though most are below. Many of the plane directors began their careers wearing blue. Down on the hangar deck, where there is no room for

SLOT MACHINE—Cat men, USS Hancock (CVA 19), attach bridle to Skyhawk as the steam pressure is built up.
Aircraft

tractors, they pushed aircraft, carried chocks and heavy chain tie-downs, and generally did what they were told by a hangar deck yellowshirt. Later on, a little older and much saltier, they moved to the blue shirt gang on the flight deck. Then, one day, they traded the blue jersey for yellow.

LAST NIGHT, when air ops were secured, the birds were spotted on deck in preparation for the first launch. Two F4B Phantoms are now positioned over the cats and will be the first to go this morning. More aircraft are lined up behind the catapults. They will go next. A4E Skyhawks are lined up wingtip to wingtip along the angle deck, their blackened tail pipes extending over the side. A pack of A1H Skyraiders are back aft. A big RA-5C Vigilante is spotted in the patio between the number three and four elevators.

Redshirted Navymen drag heavy hoses across the deck as they fuel the birds for launch. When each aircraft is fueled the crew carefully records the number of pounds used. The figure will later be used to compute the total weight of the bird for cat shot.

On or near each plane is a brownshirt, a plane captain. Unlike the flight deck red, blue, green and yellowshirts, the brownshirt is not a member of the ship's company. He is attached to a squadron in the embarked air wing. As a line crewman, he is assigned one aircraft.

His bird is his responsibility. When it flies, he preflights it. When a corrosive accumulation of salt builds up on the plane, he washes it. He sees it is securely fastened to the deck with at least nine chain tiedowns. When it is moved, he sits in the cockpit and rides the brakes. During flight quarters he may leave it only if relieved by another brownshirt. When there's a lull, it is completely permissible for him to grab 40 winks ... providing he curls up in the cockpit or on the wing.

A squadron Navyman usually receives his first flight deck experience as a brownshirt. Before coming aboard ship he is sent to airman's school, then goes through a shore-based training period with his squadron. Usually non-rated, the plane captain is supervised by an experienced line petty officer, generally either a chief or first class.

THAR SHE GOES—Catapult officer has just signaled and an A1 Skyraider streaks down cat on board USS Ranger.