



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
WASHINGTON, D.C. 20382-5101

IN REPLY REFER TO

4770
OPR PMS330D4
Ser PMS330/1330
6 JUL 1992

David W. Look, AIA, Chief
Preservation Assistance Branch
Division of National Register Programs
National Park Service, Western Region
600 Harrison Street, Suite 600
San Francisco, CA 94107

Re: HAER RECORDATION OF THE EX-HORNET (CVS 12), PUGET SOUND
NAVAL SHIPYARD, BREMERTON, WA

Dear Mr. Look:

In response to your letter of May 29, 1992, which provided preliminary approval of the current-view photographs of ex-Hornet, enclosed is the draft written narrative for the HAER documentation. This includes descriptions of selected period photographs from the National Archives collection to be incorporated into the HAER documentation.

Minor modifications to the draft written narrative can be expected in order to correlate with the final serialization of current view photographs.

It is requested that preliminary approval of the overall HAER documentation be granted.

If you have any questions regarding the enclosed written narrative, please contact Glen Clark at (703) 602-5383.

Jon P. McComas
JON P. McCOMAS
PROGRAM MANAGER
SURFACE COMBATANTS PROGRAM

enclosures
Draft Written Narrative of ex-HORNET (CVS 12) HAER Documentation

Re: HAER RECORDATION OF THE EX-HORNET (CVS 12), PUGET SOUND
NAVAL SHIPYARD, BREMERTON, WA

Copy to:
CNO (OP-431D, 44E)
NAVHISTCEN (SH)
NAVSEA DET PORTSMOUTH VA
NAVSEA DET NISMF BREMERTON WA
WESTNAVFACENGCOM (2033)

HISTORIC AMERICAN ENGINEERING RECORD

EX-USS HORNET (CVS 12)

HAER No. WA-__

Location: Naval Inactive Ship Maintenance Facility of Puget Sound Naval Shipyard, Sinclair Inlet, Bremerton, Kitsap County, WA.

Dates of Construction: Keel laid: August 3, 1942
Launched: August 30, 1943
Commissioned: November 29, 1943

Designer: Department of the Navy

Builder: Newport News Shipbuilding and Drydock Co., Newport News, VA.

Present Owner: Department of the Navy

Present Use: Excess Naval vessel. Awaiting disposal by scrap sale. Removal by scrap contractor expected by August 1992.

Significance: One of 24 Essex Class aircraft carriers constructed during World War II. In conjunction with other aircraft carriers in Task Force 58 and Task Group 38, aircraft launched from the *Hornet* conducted strikes against the Japanese fleet and shore facilities between March 1944 and May 1945. *Hornet* suffered no major damage caused by the enemy. *Hornet* was also one of several Naval vessels to recover manned space capsules from Pacific Ocean splashdowns in the 1960s. *Hornet* recovered the Apollo 11 and 12 command modules.

Report Prepared by: Glen Clark
Navy Inactive Fleet Program Management Office
Naval Sea Systems Command, PMS 330
Washington, DC 20362

and

John Reilly
Ships History Branch Head
Naval Historical Center, Washington Navy Yard
Washington, DC

Date: June 1992

USS HORNET

Ex-USS HORNET (CVS 12) was designated a National Historic Landmark in December 1991 based on her role in the Pacific Theatre during World War II and for recovery of the Apollo 11 command module in 1969.

PRINCIPAL DIMENSIONS AT CONSTRUCTION

Standard displacement	27,200 tons
Length between perpendiculars	820 ft
Overall length (extreme bow to extreme stern)	872 ft
Beam at waterline	93 ft
Beam at flight deck	96 ft
Frame spacing	4' 0"
Draft above bottom of keel at full load	27' 6"

Dimensions reflecting the *Hornet's* final configuration are identified in the Booklet of General Plans, which are reproduced as part of this HAER documentation package.

SHIP CLASS HISTORY

Thirty-two Essex Class Aircraft Carriers were authorized for construction, beginning in Fiscal Year 1940. Twenty-four were completed (seven after the end of WWII), two were scrapped prior to completion and six were never started. In order to accelerate delivery schedules and minimize construction costs, the Navy decided early in the war to concentrate shipbuilding programs on existing warship designs. Hence, the Essex Class represented the entire war production of fleet aircraft carriers. The Essex Class was more notable for their proven effectiveness, reliability and the large numbers constructed than for any design innovation.

Of the twenty-four Essex Class carriers completed; eleven ships (including *Hornet*) were involved in extensive operations in the Pacific Theatre. *Hornet* was fortunate to escape shipboard damage as that which occurred to USS Essex (CV 9), USS Intrepid (CV 11), USS Franklin (CV 13), USS Ticonderoga (CV 14), USS Randolph (CV 15), USS Lexington (CV 16), USS Bunker Hill (CV 17) and USS Hancock (CV 19) due to enemy bombs or Kamikaze attacks, resulting in many crew deaths on these ships. Thanks to extensive sub-compartmentation in the design and crew damage control efforts to save attacked ships, none of the Essex Class carriers were lost at sea during WWII.

Eventually, seventeen of the carriers were stricken from the Naval Vessel Register between 1964 and 1976 and have been sold

for scrap. Four of the carriers (including *Hornet*) were stricken in 1989 and are authorized for scrapping and three others have been donated to non-profit organizations for use as memorials. The later three include: ex-Yorktown (CV 10) in Charleston, SC, ex-Intrepid (CV 11) in New York City and ex-Lexington (CV 16 / AVT 16) in Corpus Christi, TX. *Hornet* is nearly identical to the existing configuration found on ex-Yorktown, ex-Intrepid and ex-Lexington.

HORNET AS A CV

Hornet, as with the other Essex Class carriers, was built with a welded steel hull protected by 4 inch thick side armor belts, 2-1/2 to 2-3/4 inch main deck plating and 3/4 to 1 inch plating around various compartments. The steering gear compartment was enclosed by 4 inch Class B armor on the sides and with 5 inches at the top. However, the flight deck was essential devoid of armor plating. The wood surfaced flight deck was pierced by two 48.25 x 44.25 foot hydraulic aircraft elevators, each with a 28,000 lb capacity and a 60 x 34 foot deck edge elevator on the port side that could be stowed vertically for transit through the Panama Canal. MK 4 arresting gear consisted of four steel wire ropes fitted transversely across the aft flight deck. *Hornet* and the earlier Essex'es were constructed to handle aircraft landings over the bow (while the carrier was running astern at up to 20 knots) and to launch over the stern from the hanger deck. However, the practice of landing over the bow did not prove successful and the forward landing gear was removed. The flight deck overhung the forecastle deck and a stern gallery deck. Roller doors pierced the hull at the hanger deck port and starboard, allowing propeller-driven aircraft to warm up in the hanger and facilitate faster take-off operations.

The island, on the starboard side amidships, had five levels which included a communication platform, the flag bridge, navigating bridge, a deck atop the pilothouse that mounted single 20mm gun mounts and MK 51 directors, and the air defense platform, with a quadruple 40mm platform and 24 inch searchlights. The stack trunked through the superstructure and vented aft of the island. The stack carried an SC surface search radar antenna. The navigating bridge level included the pilothouse, chartouse, air plot, radar room, and aft of the intakes, the radar control room. At the after end of the deck was a quadruple 40mm mount. The island also mounted two MK 37 directors, one forward and one aft, each fitted with MK 4 radar. *Hornet* carried a tripod foremast, which was fitted with an SK navigation radar antenna, YE homing beacon, SG radar antenna, an SM radar antenna, and the ensign staff with a servicing platform. *Hornet* also carried long-wire antenna arrangements on the

starboard edge of the flight deck, forward and aft of the island.

Design armament for the Essex class was twelve 5-inch, 38 caliber guns, on four twin mounts and four single mounts on the gallery, thirty-two 40mm guns on eight quadruple MK 4 mounts, and forty-six 20mm Oerlikon guns on single mounts. Fire control was provided by the two MK 37 and eight MK 51 directors. By the war's end, *Hornet's* armament was augmented to a total of seventeen 40mm gun mounts after a 1944 refit. The Essex carriers were built to accommodate 36 F6F-3 (Grumman Hellcat) fighters, 37 SB2C (Curtiss Helldiver) reconnaissance bombers, and 18 TBF (Grumman Avenger) torpedo bombers, or 91 aircraft. The designed crew complement for ship and aircraft was 268 officers and 2,363 of the ship's crew.

Hornet was powered by eight 565 psi, 850°F Babcock & Wilcox boilers (shown in HAER photograph nos. 16, 17 & 59) with and was propelled by four 150,000 shaft horsepower Westinghouse geared steam turbines on 4 shafts. Maximum speed was 33 knots. *Hornet* carried 6,330 tons of fuel with an endurance of 15,000 nautical miles at 15 knots.

Hornet was the first aircraft carrier to be given a multi-color camouflage scheme. In 1943, *Hornet* was adorned with Measure 33/3A, which was an open design using various dark blue, grey and green tones. Subsequently, *Hornet* wore Measure 22, which was Navy Blue below the waterline and Haze Grey above. Post-war colors returned the carrier to Haze Gray.

A thorough description of Essex Class design and arrangements, with detailed drawings, is contained in John Roberts, Anatomy of the Ship Series: The Aircraft Carrier Intrepid, Conway Maritime Press Ltd., 1982.

CV 12 OPERATIONS IN WWII

Originally named *Kearsarge*, CV 12 was renamed as *Hornet* a few months after her keel was laid to honor CV 8, sunk by the Japanese at Santa Cruz in October 1942. After an accelerated shakedown cruise between Norfolk and Bermuda, the new *Hornet* departed for the Pacific war zone to join Task Force 58 in the Marshalls. *Hornet* saw continuous duty from March 1944 through May 1945 and participated in the following Pacific Theatre campaigns:

- Phase three of the Asiatic-Pacific Raids of March-April 1944 as part of Fast Carrier Force TF-58 with USS Yorktown (CV 10), USS Bunker Hill (CV 17), USS Wasp (CV 18), USS Enterprise (CV 6), USS Lexington (CV 16), USS Essex (CV 9)

and eight other CVL's. *Hornet's* air groups and squadrons struck against Japanese targets on the islands of Palau and Woleai on March 29-30, Wadke-Sarmi and Sawar on April 8-13, and Truk, Satawan, Ponape, Moen, Eaton and Dublon on April 29-May 1.

- New Guinea and Marianas, June 1944, as part of Fast Carrier Force TF-58 with USS Yorktown (CV 10), USS Bunker Hill (CV 17), USS Wasp (CV 18), USS Enterprise (CV 6), USS Lexington (CV 16), USS Essex (CV 9) and eight other CVL's. *Hornet's* aircraft assisted in the attack and occupation of Saipan on June 11. Attacks were launched against Guam, Rota, Volcano and Bonin Islands on June 12, and against Iwo Jima and Chichi Jima on June 16 and June 24.
- Battle at Philippines, June 19-20, 1944, as part of Fast Carrier Group TG-58 with USS Yorktown (CV 10), USS Bunker Hill (CV 17), USS Wasp (CV 18), USS Enterprise (CV 6), USS Lexington (CV 16), USS Essex (CV 9) and eight other CVL's. U.S. forces engaged the Japanese fleet in a two-day air battle over the Philippine Sea which resulted in 392 enemy aircraft destroyed while U.S. aircraft losses totaled 29.
- Air strikes against Guam and the Bonins, July 1944.
- Air strikes against southern Palau Islands, September 9-17, 1944. Air strikes against Manila Harbor and airfields, September 21-24, 1944.
- Air battle at Formosa, October 1944, as part of Fast Carrier Force TF-38 with USS Wasp (CV 18), USS Intrepid (CV 11), USS Hancock (CV 19), USS Bunker Hill (CV 17), USS Essex (CV 9), USS Lexington (CV 16), USS Franklin (CV 13), USS Enterprise (CV 6) and eight other CVL's. Sorties were sent against Okinawa, Formosa and Northern Luzon, October 10-19.
- Invasion of Leyte, October 1944, as part of TF-38 with USS Wasp (CV 18), USS Intrepid (CV 11), USS Hancock (CV 19), USS Bunker Hill (CV 17), USS Essex (CV 9), USS Lexington (CV 16), USS Franklin (CV 13), USS Enterprise (CV 6) and eight other CVL's. *Hornet's* aircraft struck Japanese shipping in Ormoc Bay, Leyte on October 11.
- Air strikes against shipping in Manila Harbor on November 13-14 and against Subic Bay and Lingayan Gulf on November 19, 1944.
- Liberation of Philippines, December 1944, as part of TF-38 with USS Yorktown (CV 10), USS Wasp (CV 18), USS Lexington

(CV 16), USS Hancock (CV 19), USS Essex (CV 9), USS Ticonderoga (CV 14), USS Enterprise (CV 6) and seven other CVL's. *Hornet's* aircraft struck targets on Luzon on December 14-16.

- Battles around Japanese home islands, February-April 1945, as part of TF-58 with USS Wasp (CV 18), USS Bennington (CV 20), USS Enterprise (CV 6), USS Franklin (CV 13), USS Randolph (CV 15), USS Essex (CV 9), USS Bunker Hill (CV 17), USS Hancock (CV 19), USS Yorktown (CV 10), USS Intrepid (CV 11) and six other CVL's. *Hornet's* aircraft took part in the Fifth Fleet Raids against Honshu and the Nansei Shoto on February 15, 16 and 25. Her aircraft also supported the assault and occupation of Iwo Jima from February 15 through March 1. Aircraft from *Hornet* and other carriers attacked shipping at anchor in Kure and Kobe naval bases beginning March 19. On April 7, TF-58 engaged three ships of the Japanese fleet in the South China Sea. *Hornet* and USS BENNINGTON were credited with assisting USS Yorktown (CV 10) in the sinking of the 45,000 ton battleship Yamato. By April 30, *Hornet* had launched over 4000 combat sorties in 32 days and the ship was under attack more than 105 times.

Hornet, as part of TG-38, encountered a typhoon east of Okinawa on June 5, 1945 which collapsed 25 feet of *Hornet's* forward flight deck, rendering the ship incapable of launching aircraft over the bow. *Hornet* proceeded to San Francisco where damage was repaired during an overhaul at Hunter's Point Naval Shipyard beginning July 7. WWII ended prior to completion of the overhaul. Beginning September 13, 1945, *Hornet* participated in the "Magic Carpet Fleet", transporting servicemen from Guam and Pearl Harbor to San Francisco. *Hornet* remained at Hunter's Point Naval Shipyard from February 1946 until decommissioning on January 15, 1947. *Hornet* was retained as an inactive ship at the Bremerton Pacific Reserve Fleet.

Hornet's record of damage to the enemy during WWII showed 688 enemy planes destroyed in the air, 742 destroyed on the ground and 1 carrier, 1 cruiser, 10 destroyers and 42 merchant ships sunk. *Hornet*, Essex, Yorktown, Lexington and Bunker Hill were among the Essex Class carriers receiving a Presidential Unit Citation for operations in the Pacific Theatre. *Hornet* earned the Asiatic-Pacific Area Campaign Service Medal with 9 battle stars (which cites campaigns the ship participated in). However, her accomplishments did not exceed that of USS Essex (which commenced strikes against enemy positions in August 1943 and supported every major Pacific engagement, earned 13 battle stars and was eventually scrapped), USS Yorktown (which also commenced strikes in August 1943, was credited with sinking 118 ships and

destroying 2,358 aircraft and ground installations, and earned 11 battle stars), USS Lexington (which commenced strikes in September 1943 and earned 11 battle stars), and USS Bunker Hill (which commenced strikes in November 1943, incurred significant attack damage, earned 11 battle stars, was eventually scrapped and has been largely forgotten).

HORNET AS A CVA

Beginning May 12, 1952, *Hornet* underwent a modernization and conversion at the Brooklyn Navy Yard. Under the SCB-27C modification program, *Hornet* received a strengthened flight deck to handle jet aircraft and improved arresting gear. The island superstructure was streamlined, the flight deck 5"/38 gun mounts forward and aft of the island were removed, all single 20mm and quadruple 40mm mounts were removed and the forward elevator was enlarged to a 70 square foot area. Also, the MK 37 fire control system was replaced with a MK 25 system, H8 catapults were installed, the side armor was removed and the wood surfaced flight deck was covered with metal. On September 11, 1953, USS *Hornet* was recommissioned as an attack carrier (CVA 12). A eight-month global cruise began in May 1954. On June 24, 1954, Chinese communist fighter planes attacked and were promptly shot down by aircraft launched from the *Hornet* to search for a downed British airliner.

In 1955, *Hornet* conducted a Western Pacific (WESTPAC) deployment between May 4 and December 10. In January 1956, *Hornet* commenced an overhaul at Puget Sound Naval Shipyard which included construction of an angled flight deck and an enclosed hurricane bow. Two WESTPAC deployments were conducted in 1957 and 1958.

HORNET AS A CVS

In August 1958, *Hornet* commenced a four-month overhaul and conversion to an anti-submarine warfare carrier (CVS), which included internal modifications to accommodate embarked helicopters and installation of an AN/SQS-23 bow mounted sonar. Two WESTPAC deployments were conducted prior to a 1961 overhaul at Puget Sound Naval Shipyard. After a 1962 WESTPAC deployment, a Jan-Feb 1963 repair availability at Long Beach Naval Shipyard removed three additional 5"/38 gun mounts.

After another WESTPAC deployment, *Hornet* underwent a 7-month FRAM II (Fleet Rehabilitation and Modernization) overhaul in June 1964 where the boilers and main propulsion gear were completely overhauled, air conditioning was added to electronic spaces and the ship was equipped with Gemini Space Recovery communications facilities.

In October 1965, *Hornet* arrived in the South China Sea to conduct search and rescue missions with SH-3A Sea King helicopters in support of the strike aircraft flying from the attack carriers on station off Vietnam. Marine A-4 Skyhawks from *Hornet* also strafed designated Viet Cong targets in South Vietnam. After a cruise to Australia and the South Pacific, *Hornet* returned to San Diego in March 1966. Additional combat support operations off Vietnam were conducted in 1967 and the ship completed an overhaul at Long Beach Naval Shipyard in 1968.

In June 1969, *Hornet* was assigned as primary recovery ship for Apollo 11. *Hornet* recovered the Columbia command module on July 24, 1969 with Neil Armstrong, Edwin Aldrin and Michael Collins on board. The astronauts were transported to the ship by helicopter and lodged in a quarantine trailer enroute to Pearl Harbor, where the trailer was transferred to an Air Force C-141 cargo plane and flown to Ellington Air Force Base. The event was repeated in November 1969 for Apollo 12. For historical perspective, it is noted that USS Lake Champlain (CVS 39) recovered the Freedom 7 capsule with Alan Shepard, the first American in space. Lake Champlain also recovered Gemini 5 and was eventually scrapped. USS Wasp (CVS 18) recovered Gemini VII, which had conducted the first rendezvous with another manned spacecraft, Gemini VI. Wasp also recovered Gemini IX and was eventually scrapped. Essex, Intrepid, Bennington and Kearsarge also recovered Mercury, Gemini and Apollo capsules.

In June 1970, *Hornet* was again decommissioned and placed in the Bremerton Pacific Reserve Fleet (now known as the Naval Ship Inactive Maintenance Facility, Bremerton, WA) for retention as a mobilization asset and possible future reactivation.

DESCRIPTION OF CATAPULT AND ARRESTING GEAR SYSTEMS

HAER photograph nos. 49, 62, 63, 64, 66 and 80 show the Type H (Hydraulic) MK 8 catapult system installed when *Hornet* was decommissioned, which replaced the H4's of the original design. Hydraulic catapults employed a ram that drove a shuttle through a cable and sheave arrangement, which in turn multiplied the speed and stroke of the ram mechanically. This post-war high-capacity hydraulic catapult had a capacity of 15,000 pounds at 120 mph or 62,500 pounds at 70 mph. The catapult design is illustrated in HAER photographs nos. ____.

HAER photograph nos. 51, 52, 53, 54, 55 and 56 show the MK 5 arresting gear system installed when *Hornet* was decommissioned, replacing the earlier MK 4 system. The MK 5 system was rated for 30,000 pounds at 90 mph and consisted of the arresting engines, hydraulic accumulators, plungers and sheaves for large diameter

cables stretched across the aft flight deck for the aircraft's arresting hook to engage. When the aircraft engaged the arresting cable reeved to the engine and pulled it out, hydraulic fluid was expelled to the accumulators through a control valve which throttled the fluid. The hydraulic accumulators provided a period of runout to control deceleration of the aircraft. In the case of the earlier axial-deck arrangement, a barrier was erected to protect the parking area forward from aircraft missing the arresting gear wires. The arresting gear design is illustrated in HAER photographs nos. ____.

HORNET DISPOSAL EFFORTS

A 1981 study of Essex Class carrier reactivation requirements determined that *Hornet* was not suitable for potential reactivation to support A-4 aircraft with a limited modernization package, however, her existing material condition might warrant utilization in another application in support to the build-up to a 600 ship fleet. However, no program was ever implemented. In October 1987, a material inspection by the President, Board of Inspection and Survey (PRESINSURV) found *Hornet* unfit for further service since all installed systems were obsolete and the ship did not meet current habitability, safety and pollution abatement requirements. In December 1988, the Carrier Programs Division (OP-55) of the Chief of Naval Operations (CNO) concurred that obsolescence has made *Hornet* and the other three remaining Essex Class CV's unfit for modernization or reactivation and recommended their disposal. *Hornet* was stricken from the Naval Vessel Register in 1989 by the Secretary of the Navy and was immediately made available for donation to a non-profit organization for use as a memorial or museum ship under Title 10 U.S.C. Section 7308. The U.S.S. HORNET Historical Museum Association was the only group to pursue obtaining the *Hornet*, but was unable to secure the financial backing for the project. The final extension for donation applications expired on January 31, 1992 whereupon CNO authorized disposal of *Hornet* by scrap sale.

CURRENT CONDITION AND APPEARANCE OF HORNET

At the time of *Hornet's* decommissioning in 1970, the ship was retained at the Navy Inactive Fleet Maintenance Facility, Bremerton, WA as a "mobilization" asset, preserved for potential future reactivation. The ship's 1970 inactivation consisted of extensive preservation work, including underwater hull preservation, blanking of hull penetrations below the water line, cleaning and preservation of tanks and bilges, draining of boilers and piping systems, application of preservative compounds on machinery and equipment, sealing weather-deck doors, hatches,

scuttles, vent duct openings and stacks, installation of dehumidification and cathodic protection equipment, and installation of fire and flooding alarms. Some of the dehumidification machines which were no longer servicable were left on board as shown in HAER photograph nos. 2, 4, 5, 7, 8 and 9. The dehumidification system consisted of nine zones throughout the ship, maintaining the air in the internal compartments at 40 percent relative humidity. Dehumidification huts were also installed to protect radars, gun fire control directors and the remaining gun mounts on the gallery deck as shown in HAER photograph no. 103. Due to the roller doors on the port and starboard sides of the hanger deck, the hanger deck could not be provided with effective deterioration and there is extensive paint exfoliation as shown in HAER photograph nos. 7 and 9. The flight deck was preserved with a protective layer of tar and the port aircraft elevator was removed and stored on the flight deck as shown in HAER photograph no. (aerials).

Periodic external preservation was conducted while the ship was a mobilization asset, hence, the exterior hull above the waterline and the island is in fair condition with small accumulations of bird droppings. After 22 years of inactivation, extensive marine growth is attached to the underwater hull, likely to be five feet thick. Cabling throughout the ship shows evidence of advanced insulation deterioration. Numerous areas of deteriorated or missing piping insulation exist. Countermeasure washdown systems are deteriorated. Hanger deck roller doors are severely corroded.

During the *Hornet's* inactive status as a mobilization asset, equipment and parts were cannibalized to support emergent requirements of active fleet when such material was not available within the Navy supply system. As a mobilization asset, payback requisitions were provided back to the ship but not reinstalled. Subsequent to being stricken from the Naval Vessel Register, these payback requisitions were returned to the supply system and the ship was extensively stripped of equipment and material that could be used elsewhere in the Navy or at other government agencies. As an example, a partial list of equipments removed includes:

- Radial arm drill presses.
- Forced draft blowers.
- Firemain valves.
- Draft gage manometers.
- Numerous pumps and motors.
- Bridge wing chairs.
- Chart tables.
- File cabinets.

Safes.
Lockers.
Battle lanterns.
Lube oil coolers.
Ship service turbine generator rotors and reduction gears.
Steam strainers.
MK 37 gun fire control system parts.
AN/SQS-23 sonar equipment.
Various machine shop equipment.
Ready room furniture.
Miscellaneous furniture.
Aft gyrocompass.
Anchor windlass motor brakes.

NATIONAL ARCHIVES PHOTOGRAPHIC COLLECTION

The Still Photographs Branch of the National Archives in Washington, D.C. maintains an extensive collection of 14 million period photographs, including all Naval vessels. Several hundred photographs of the ex-Hornet, its aircraft and personnel are on file, depicting daily life and combat operations during WWII, during the 1950's and 60's, and the Apollo 11 and 12 recoveries in 1969. The following is a selection of photographs from the National Archives collection to be reproduced and included in the HAER documentation.

80-G 043009 Bow view of Launching, showing original bow configuration. 30 Aug 43.

80-G 206000 Full aerial view off of Norfolk, VA, showing original stern configuration and axial flight deck. 19 Dec 43.

80-G 284087 Full starboard view underway, in camouflage paint scheme. 5 Sep 44.

80-G 469299 Forward port view of the island with flight deck gun mounts, taken from forward flight deck. Apr 1945.

80-G 700122 Bow damage from typhoon. 5 Jun 45.

80-G 1001595 Full starboard view at Puget Sound Naval Shipyard. Aug 56.

80-G 1001445 Aerial forward view of enclosed "hurricane" bow with flight deck gun mounts removed and angled flight deck. 1 Oct 56.

EX-USS HORNET (CVS 12)
HAER No. WA-__

Box 87
K-32052
00030(12)

Full aerial view showing stern starboard quarter
and four arresting wires on aft flight deck.
19 Dec 65.

Box 88
00010.3(12)
48231

President Nixon congratulates Apollo 11 astronauts
through window of the Mobil Quarantine Van located
in the hanger deck. 24 Jul 69.

Box 87
KN-18090
00030.1(12)

Full aerial view showing forward port quarter,
entering Pearl Harbor after Apollo 11 recovery.
26 Jul 69.

Box 87
KN-18315
00030.0(12)
48232

Forward and starboard view between Apollo 11 and
12 recoveries, showing final configuration before
inactivation. 30 Oct 69.

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