

was redesignated the UH-25 (H-25) series.

The HUP *Retriever*, which was used by HTU-1 at Ellyson Field during the 1950s, was a new twist in training with its tandem rotor. On January 11, 1951, HU-2 was the first to receive the *Retriever*. The HUP ended its operational service on August 31, 1964, with Fleet Utility Squadron 1.

A small number of HTE helicopters, built by Hiller, were procured by the Navy primarily for training, with the contract signed on April 17, 1950, and first delivery that May. HTU-1 received the first operational HTE on January 19, 1951. The HTE-1 and 2 were three-place aircraft, equipped with dual controls, a two-blade rotor with a diameter of 35 feet and a tail rotor. The HTE-2 was used primarily as a trainer while the HTE-1 served as a trainer and utility aircraft. The HTE-2 had a 200-hp FR-0-335 engine with a quadricycle landing gear system instead of the tricycle system used on the HTE-1. HTU-1 was the last squadron to use the HTE, which left training squadron service on October 31, 1952.

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The HTE was followed by the HTK built by Kaman. It was ordered by the Navy on September 5, 1950, and accepted in November 1951. The first squadron to receive the HTK was HU-2 on January 26, 1953. Mission requirements included training and general utility. The three-place aircraft had a four-bladed rotor system with a 40-foot diameter and a tail rotor, and was powered by a 255-hp Lycoming O-435 engine. HU-2 was the last squadron to fly the HTK, which was transferred from the squadron in November 1955. The HTK continued in the Navy

inventory and was used by research, development test and evaluation units. Acceptance of the Sikorsky HO4S by the Navy in August 1950 began a long career for this aircraft. It was built along the "classic lines" of a helicopter. It had a single rotor with three blades and a tail rotor. There was adequate power and cabin space for use in ASW operations, observation duties and air-sea rescue missions. On December 2, 1950, HU-2 was the first operational squadron to receive the HO4S. It was employed in a wide variety of roles and played a significant part in developing missions and procedures for the use of helicopters by both the Navy and the Marine Corps. The HO4S series consisted of models 1, 2 and 3, some of which were also used extensively by the other services.

A later model of the HO4S was procured and designated HRS, with its primary mission of transporting Marine troops. In September 1951, Marine Helicopter Transport Squadron 161, operating in Korea, introduced the HRS into the combat role as a transport helicopter. This was the first time a helicopter had been used in combat to test its transport capabilities.

In 1962, the designation for the HO4S series was changed to UH-19F, and the HRS to CH-19E. As training helicopters, they were used by HT-8 from July 1957 to June 1963. The last operational squadron to fly the HO4S was HU-4 in December 1960, while the last operational HRS (CH-19E) was flown by Helicopter Combat Support Squadron 5 until February 26, 1969 — ending almost 20 years of service by this series to the fleet.

A decade of helicopter development by Sikorsky peaked with the introduction of its S-56 model. It was designated HSS-1 by the Navy which signed the first contract on June 30, 1952. The HSS-1 was accepted by the Navy in February 1954 and first delivery was to Helicopter Anti-Submarine Squadron 3 in August 1955. The HSS-1 *Seabat* was designed for ASW search and attack, with the capability of operating from cruisers and carriers.

The Marine Corps quickly followed with an order for a similar version, designated the HUS-1 *Seahorse*. It was reconfigured for the mission of transport and utility. The HUS version was first accepted in January 1957 and assigned to Marine Helicopter Transport Squadron (Light) (HMR(L))

363 the following month. In 1962 the HSS-1 series was redesignated SH-34G/J for its ASW role, and UH-34G/J for a utility role. The HUS-1 series was also redesignated, UH-34D or E, depending on the configuration.

The HSS/HUS aircraft had single rotor systems with a 56-foot rotor diameter, four blades and a tail rotor. Depending on their configuration, they carried a crew of two and 12 passengers or a crew of two to four. The helicopters were specifically designed to be stored aboard ship; the main rotor blades could be folded aft and the entire rear fuselage and tail rotor folded forward, for stowage.

The HSS-1N *Seabat* made its first public flight on May 27, 1958, at NAS Corpus Christi. It was the first helicopter capable of day and night ASW operations under instrument flight conditions, which was a major breakthrough for helicopter operations. It was an HUS-1 from HMR(L)-262 that recovered the first American in space, Alan B. Shepard, after splashdown in the ocean on May 5, 1961. The *Seabat* and *Seahorse* were also involved in many significant operations in Vietnam, and are especially remembered for their utility role in medical evacuation.

First delivery of the HSS-1 to the Naval Air Training Command was on May 6, 1955, for use in the fleet introduction program. In February 1962, HT-8 received its first HSS-1. The training program was then lengthened from 10 to 14 weeks for advanced training in the OHSS-1, and also in the H04S and HUP. HSS-1s (UH-34G) continued in service with HT-8 until July 1970 when they were phased out of the squadron, while HSS-1s (UH-34D/G) remained in the Navy inventory until March 31, 1974.

In 1956, the Navy sought a helicopter with the capability to perform a wide range of missions, including all-weather operations. The new HU2K designed and built by Kaman Aircraft Corporation met the requirement. The first contract was signed in November 1957 and in April 1959 the Navy received its first HU2K. The aircraft was redesignated UH-2A (H-2) in 1962 and named the *Seasprite*. HU-2 was the first squadron to receive the new *Seasprite*, on December 18, 1962.

The H-2 has four blades in a single rotor system with a 44-foot rotor diameter and a tail rotor. The utility version was designed for a two-man crew and four passengers but this

changed with the introduction of different models. The *Seasprite* was equipped with one engine at first, the T-58-GE-6, but later models incorporated two T58-GE-8 engines, providing more power.

Missions assigned to the *Seasprite* varied from all-weather plane guard duty to gunfire observation and courier duty. The versatility of the aircraft led to various modifications for specialized duties such as combat search and rescue, and a new primary mission as an ASW helicopter. For its ASW role, the SH-2D was the first helicopter to be developed for the Light Airborne Multi-Purpose System (LAMPS) for surface combatants. *Seasprites* were configured to serve aboard destroyers to enhance their capability in ASW and antiship missile defense, and surveillance roles.

With its wide range of missions, the H-2 was eventually used in the training commands primarily as a SAR aircraft but for a brief period, November 1974 to March 1975, by Helicopter Combat Support Training Squadron (HCT) 16. The squadron's mission was SAR support for the training carrier *Lexington* and training pilots for the transition to the HH-46A rescue helicopter. The *Seasprite* is still active in the fleet, providing a variety of services.

The H-46 *Sea Knight* was also used briefly in the training command. It was originally procured by the Marine Corps as a troop assault and equipment transport helicopter. Accepted in May 1962, it was initially designated HRB-1

and then changed to the H-46 series. The first *Sea Knight* was delivered to Medium Helicopter Squadron 265 in June 1964. The Navy later procured the *Sea Knight* for a vertical replenishment role in the fleet. It served briefly in the training command. HCT-16 used the *Sea Knight* from November 1974 to May 1977. This squadron was redesignated HC-16 and was removed from the operational and administrative control of the training command. The squadron has continued to act as a search and rescue squadron at Pensacola and is also a fleet replacement training unit for the H-46 *Sea Knight*. The series is still being actively used in fleet operations.

HT-8, the Navy's only helicopter training squadron at the time, entered the jet age on October 10, 1968, when five TH-57A *SeaRangers* were accepted from Bell Helicopter Corporation by the Chief of Naval Air Basic Training and the commanding officer of HT-8, as replacements for the old TH-13Ms in primary training. The *SeaRanger* is the military version of Bell's 206A *JetRanger* which was developed for civilian use. It is powered by a 317-hp Allison 250-C18 turbine engine with a two-bladed main rotor and a tail rotor. The *SeaRanger* has dual controls and is a five-place aircraft, seating two up front and three in the rear.

To complete the transition of the Navy's helicopter training squadron aircraft to all-jet operations, the Navy borrowed UH-1D *Hueys* from the Army until the TH-1L training version ordered by the Navy arrived. The Army aircraft

arrived on January 7, 1969, and began to replace the old H-349 flown by HT-8. In November 1969, HT-8 began to receive the Bell TH-1L training version of the UH-1s, and by August 1970, the squadron at Ellyson Field had completely transitioned to an all-jet helicopter training fleet. The syllabus involved primary training in the TH-57A and then advanced training in the TH-1L.

On March 1, 1972 HT-18 was established as a separate squadron from HT-8 and assigned the mission of advanced helicopter training, flying the TH-1L. HT-8 continued with its mission of basic helicopter training in the TH-57A *SeaRanger*. Since the introduction of the TH-57A, various avionics changes have led to the development of the TH-57C. The C model, an advanced instrument trainer, was delivered to the Navy in November 1982 and officially designated TH-57C in February 1983. Modifications include upgraded dual controls, instruments and electrical system; an environmental control system; and a stabilization and flight control system. Improvements range from the sophisticated navigation system, which helps reduce pilot fatigue, to the stabilization system which makes the advanced trainer fly like a much larger, more stable aircraft. Its comparatively lower cost of operation has made it a welcome addition to the training command's inventory, and the new TH-57C has replaced the TH-1L flown by HT-18. ■



The TH-57C *Sea Ranger* is the latest training helo used by HT-18.



TH-1Ls, the mainstays in the training of helo pilots until replaced by the TH-57C, approach USS Lexington.

Training Aircraft or Aircraft Used For Training in the Navy

The following is a list of aircraft used for training by the Navy. The list is geared primarily towards aircraft associated with the Training Command; however, there are some aircraft listed that do not fit into this category. Exceptions were made for some aircraft because of their significance as a special purpose operational trainer; a limited production or experimental type that led to the development of a new training aircraft or training program and special aircraft training units (other than operational units) that were not part of the Training Command. Most aircraft involved in operational training, including Reserve aircraft, have not been included in the list. Operational training aircraft outside the Training Command would encompass a high percentage of all the aircraft types that have been in the Navy's inventory. Aircraft used by Replacement Air Groups/Wings, Readiness Air Squadrons and Carrier Qualification Units and Operational Training Units from WW II are generally not included in this list. The list is primarily intended to provide a good cross section of aircraft assigned to the Training Command.

Early period (Aircraft used as trainers and other purposes).

S-4B/C
 SH-4
 DH-4B
 DT-2
 F-5L
 SC-1, SC-2
 UO-1
 T3M-1
 F6C-4
 CS-1
 Aeromarine 40
 VE-7, VE-9

(Continued)

MF-boat (Curtiss)
 Aeromarine 39-A
 Aeromarine 39-B
 A-1 Triad
 F-boat (Curtiss)
 HS-1L, HS-2L
 XJW Training Skyhook pilots for USS Akron and Macon.
 N2Y-1 Training Skyhook pilots for USS Akron and Macon.
 NK-1
 N4Y-1
 F4B-1/2/3/4
 F2B-1
 N2M
 XPY-1 (P3M-2)
 H-16
 L-3
 TS-1
 NO-1
 HO-1
 O2U
 F7C
 OL-8
 PN-12 (PM-1/2) (PD-1)
 T4M-1
 XPH-1
 F3B-1
 O2C-2
 RR-4/5
 SU-1/2/3
 O3U

Training Aircraft (Designated or used primarily as a training aircraft — Early period through modern period).

NT-1
 NP-1
 H-4-H
 N2C Fledgling (N2C-1 & N2C-2)
 LNE-1
 LNS-1
 HN-1/2
 N2N-1
 TG-1/2/3/4/5
 R-3, R-6, R-9

NB series
 C series (Built by Boeing as a primary trainer but not used at the naval training schools because of poor engine performance. The Navy received 50 of these aircraft).

N-9
 JN series Jenny
 N3N Yellow Peril
 NY series (XN3Y-1)
 NJ-1 (the first series in a long line of aircraft later designed SNJ).
 SNJ series Texan
 SNC-1 Falcon
 SNV Valiant
 NR-1 Recruit
 TV-1 (When first acquired, this aircraft was designated TO-1, obtained from the USAF which designated it P-80 Shooting Star).
 T-33B (This aircraft was first designated TO-2 and then redesignated TV-2. It was acquired from the USAF which designated it T-33A).
 TV-2 (see T-33B)

TO-1 (see TV-1)
 TO-2 (see T-33B)
 T2V-1 Seastar (see T-1A)
 T-1A Seastar (received as the T2V-1; redesignated T-1A in 1962).
 T-28 Trojan (T-28B/C)
 T-34 Mentor (T-34B/C)
 TT-1 Pinto
 T2J-1 (see T-2) (redesignated T-2 in 1962).
 T-2 Buckeye (T-2A/B/C)
 T-39 Sabreliner
 TC-4C Academe
 NE Grasshopper (HE-1)
 N2T-1 Tutor
 GK-1 Forwarder
 SNB Kansan (SNB-1/2/3, and SNB-5 which was a modernized SNB-2) (JRB Navigator)
 T-44A Pegacat
 NS. N2S Yellow Peril, Kaydet (Stearman)
 NH-1 Nightingale (GH-1)
 T-47A
 T-45TS (T-45A)

Operational Aircraft Used for Training or Reconfigured for use as a Training Aircraft

T-38A Talon (F-5E Tiger II)
 TS-2A (S2F-1T) Tracker
 SBN-1 (modified SBA Brewster built by the Naval Aircraft Factory)
 F9F-8T Cougar (redesignated TF-9J in 1962)
 TF-9J
 R4D Skytrain/Skytrooper series (R4D-5S redesignated SC-47H, R4D-6S redesignated SC-47J and R4D-7 redesignated TC-47K)
 R5D Skymaster
 SC-47H (see R4D)
 SC-47J (see R4D)
 SC-47K (see R4D)
 R-50 Loadstar
 OS2U-2 Kingfisher (OS2N)
 P2Y
 PB4Y Catalina (PBN-1)
 F6F Hellcat
 SB2C Helldiver (SBW)
 TBM Avenger series (TBF)
 SC-1 & SC-2 Seahawk (same as the CS designated aircraft but built by Martin instead of Curtiss).
 PB4Y Liberator/Privateer (P4Y)
 PV Ventura/Harpoon
 PBM Mariner
 F4U Corsair series (FG) (F2G) (F3A)
 F8F Bearcat
 P2V Neptune (redesignated A-1)
 OY Sentinel
 UF-1T Albatross (redesignated TU-16C in 1962)
 TA-7C Corsair II
 TAV-8A Harrier
 F3D-2T2 Skynight (TF-10B)
 A3D-2T Skywarrior (TA-3B)
 TE-2A Hawkeye
 TF-4A Phantom II
 TF-8A Crusader
 F-11A Tiger
 TA-4F/J Skyhawk
 SB2A Buccaneer (used as trainers by the Marine Corps squadrons, especially the

night fighter squadron VMF(N)-531).
 F2F
 F2T Black Widow (P-61A)
 T-29B Flying Classroom
 SBU-1/2
 R2D-1
 SOC-1/2 Seagull
 JRF Goose
 F7F-1/2/3 Tigercat
 JF-1 (J2F) Duck
 SBC-4
 F3F-2/3
 TBD-1 Devastator
 GB-1/2 Traveller
 SO3C-1/2 Seamew
 SBD series Dauntless
 JM-1 Marauder
 JRC-1 Bobcat
 J4F Widgeon
 FM Wildcat
 R5C-1 Commando

Training Helicopter or Operational Helicopters Used in Training Role

XOP-2
 OP-1
 HNS-1 Hoverfly
 HTK-1
 TH-13 L/M/N (HTL-4/6/7) Sioux
 TH-1E and TH-1L Iroquois (UH-1E and UH-1L)
 TH-57A/C SeaRanger
 HUP-2 Retriever (redesignated UJ-25 but not used in the training role with this designation).
 UH-19 Chickasaw (HO4S) (same as the HRS but configured for different duties).
 HRS (same as the HO4S but configured for different duties and redesignated CH-19 in 1962)
 UH-34D/G Seahorse (HUS-1) (same as the HSS (SH-34G) but configured for different duties).
 HTE-1
 HO3S
 HH-46A Sea Knight
 UH-2C Seasprite
 HOS-1

Airships Used for Training

(See separate book on LTA.)

Foreign Aircraft Used by the Navy as Trainers

Fokker D. VIII
 Sopwith Baby Seaplane
 Morane-Sauinier AR-1
 Fokker C.I.