

Sikorsky HNS-1 "Hoverfly"



Historical Information:

CDR William J. Kossler, who was the chief of the Aviation Engineering Division at Coast Guard Headquarters in Washington, witnessed Igor Sikorsky's test flight of his XR-4 prototype on 20 April 1942. The XR-4 first flew on 14 January of that same year. Impressed with the craft, he invited CDR W. A. Burton, the commanding officer of Coast Guard Air Station Brooklyn, to witness a test flight. CDR Burton later wrote in his report on what he witnessed:

"The helicopter in its present stage of development has many of the advantages of the blimp and few of the disadvantages. It hovers and maneuvers with more facility in rough air than the blimp. It can land and take-off in less space. It does not require a large ground-handling crew. It does not need a large hanger. There is sufficient range -- about two hours -- in this particular model to make its use entirely practical for harbor patrol and other Coast Guard duties."

This report marked the beginning of the Coast Guard's fruitful involvement in the development of rotary-winged aircraft. Burton's executive officer, CDR Frank Erickson, was the next officer to witness a Sikorsky demonstration, although this time Sikorsky flew the VS-300. Erickson immediately saw the capabilities of the rotary-winged aircraft in search and rescue operations. Faced with general indifference from other pilots, Coast Guard Headquarters, and the U.S. Navy, however, Erickson decided to promote the anti-submarine and convoy protection possibilities of the new craft in his report to Headquarters. The "higher-ups" began to show some interest. After the Commandant of the Coast Guard, VADM Russell R. Waesche, saw a flight demonstration, he conferred with ADM Ernest J. King, USN, and King issued a directive that placed "the responsibility for the seagoing development of the helicopter [with] the U.S. Coast Guard." This began the Coast Guard's role in developing the helicopter for use in a variety of applications.

The Army ordered the first versions of Sikorsky's machine and with Coast Guard prodding so then did the Navy. The Navy acquired four (one YR-4 trainer and three XR-6s) on 2 November 1943, and sent them to CGAS Brooklyn for evaluation and to begin a helicopter pilot training program under the direction of CDR Erickson, who, after training on the new aircraft, became Coast Guard Helicopter Pilot No. 1. He then organized and trained pilots who participated in the joint U.S. and British evaluation trials held on board the SS *Daghestan* in November 1943 to ascertain the feasibility of helicopter flight operations aboard ships at sea. Later tests took place aboard the converted cutter *Governor Cobb*.

Erickson trained a total of 102 helicopter pilots and 225 mechanics during the war, including personnel from the Army Air Force, Navy, Coast Guard and the British Army, Royal Air Force and Navy. On 3 January 1944 he flew the first ever rescue flight by helicopter when he piloted a HNS-1, carrying two cases of blood plasma, from New York City to Sandy Hook, New Jersey, during a violent storm, for the treatment of Navy crewmen from the destroyer USS *Turner*, which had exploded and burned off New York Harbor. He went on to develop equipment such as the power hoist, rescue slings and baskets, floats that permitted helicopters to land on water and techniques like landing and taking off from vessels at sea and hovering in all weather and wind conditions. His initial experiments all took place with the HNS-1.

The Navy designated the R-4 aircraft as the HNS-1. Ultimately, at least 21 of the many acquired by the Navy were used by the Coast Guard. The HNSs, along with the HOSs, were used in a number of early search and rescue operations, including Erickson's famous flight mentioned earlier and another in Labrador where an HNS was completely broken down and transported by a fixed-wing aircraft to the area in April, 1945, to rescue the crew of a downed Royal Canadian Air Force PBV deep in the wilderness. The lead pilot for this SAR operation was LT August Kleisch, USCG. Another rescue took place in Gander, Newfoundland in September, 1946, where an HNS and an HOS were broken down and transported to the area to rescue the passengers and crew of a Sabena airliner that had gone down deep in the forest. The first pilot to arrive and begin rescue flights was again LT Kleisch and he was soon joined by CDR Erickson, LT Stewart Graham, USCG, and LT Walter Bolton, USCG. These major rescue efforts proved the usefulness of the new helicopters in saving lives in remote locations and helped to secure a place for these rotary-winged aircraft in the Coast Guard's inventory.

The ultimate fate of each of the HNSs in Coast Guard service is unknown (except as noted below) but surviving helicopters were probably returned to the U.S. Navy along with the HOS-1s between May 1947 and May 1949.



Original Caption: None

Date: ?
USCG Photo #: None
Photographer: U.S. Coast Guard

Six Coast Guard HNSs at Floyd Bennett Field, Brooklyn, New Jersey. Probably 1944.



Original Caption: "New York, N.Y.: Commander F. A. Erickson, USCG, an expert helicopter pilot and one of the pioneers in the adaptation of this craft for practical purposes is shown here congratulating the rescuing pilot, Ensign W. C. Bolton, USCG, for a job 'well done.'"

Date: 7 April 1944 (date photo was cleared for publication).
USCG Photo #:
Photographer: U.S. Coast Guard



Original Caption: "Comdr. Frank A. Erickson, USCG & Dr. Igor Sikorsky, Sikorsky Helicopter HNS-1 C.G. #39040."

Date: 14 August 1944
USCG Photo #: 232-8
Photographer: U.S. Coast Guard



Original Caption: "Helicopter landing on the USS Mal De Mer: Floyd Bennett Field, Brookly, New York, 1945 -- This platform could pitch and roll to simulate that of a vessel at sea. Used to check out pilots for shipboard operations."

Date: 1945
USCG Photo #: None
Photographer: U.S. Coast Guard



Original Caption: None

Date: ?; probably summer, 1944.

USCG Photo #: None

Photographer: U.S. Coast Guard

Experimental flight operations aboard the USS *Cobb*, probably during the summer of 1944.



Original Caption: "U.S. Coast Guardsmen take a break during the first Arctic helicopter rescue in the history of aviation. Lieut. August Kleisch (center), Coast Guard pilot of the Sikorsky helicopter 'The Labrador Special,' chats with Lieut. Lawrence G. Pollard, Assistant Operations Officer of the Air Transport Command at Goose Bay. Pollard, flying supplies into the ATC radio-weather station which served as the base for helicopter operations, flew Sgt. G. J. Bunnell, the first man rescued, back to Goose Bay. On the right, facing the camera, is AMM1c Gus Jablonski of Brooklyn, Crew Chief on the Labrador Special. Jablonski worked very hard through the entire operation. Kleisch made all the rescue flights personally."

Date: 2 May 1945
USCG Photo #: None
Photographer: U.S. Coast Guard



Original Caption: None

Date: ?; Probably September, 1946.

USCG Photo #: None

Photographer: U.S. Coast Guard

Gander, Newfoundland rescue in September, 1946.



Original Caption: "HNS-1 C.G. No. 39040 hoist pick-up. CGAS Floyd Bennett, BKLYN., N.Y."

Date: 1944

USCG Photo #: None

Photographer: U.S. Coast Guard



Original Caption: "Evaluation spray nozzels on Coast Guard HNS-1 helicopter. Pilot: LT(jg) W. "Red" Bolton, U.S.C.G. Note: spray at stern of helo."
Date: 30 October 1944
USCG Photo #: 288-2
Photographer: U.S. Coast Guard

Sources:

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HNS (Sikorsky) Historical File, USCG Historian's Office collection.

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Arthur Percy, *U.S. Coast Guard Aircraft Since 1916*. Annapolis: Naval Institute Press, 1991, pp. 276-282.

