

Sikorsky Archives News

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A Coast Guard JayHawk lifts a Katrina survivor to safety



Rescue!

From Penfield Reef to Hurricane Katrina.



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Archive photos of the rescue of two men from a grounded barge by Jimmy Viner and Capt. Jack Beighle USAAF, flying an R-5. Penfield Reef, Fairfield, Connecticut, November 29, 1945.

Right: The Certificate presented to Jimmy Viner by the company.

Below: Jack Beighle demonstrates the makeshift sling used in the rescue, on one of the rescues.



“When a man is in trouble an airplane can come in and drop flowers on him, that’s all. But a helicopter can come in and save his life”

- Igor Sikorsky

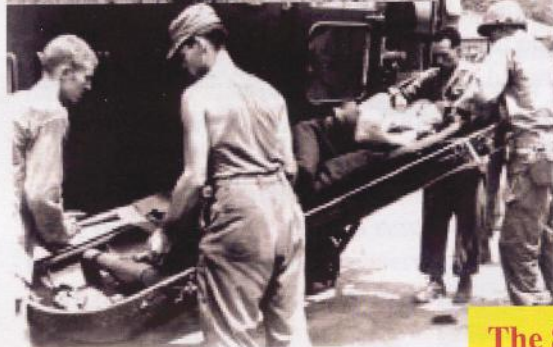
Jungle Rescue.

In March 1945 one of a small batch of YR-4 helicopters was used for the first Service rescue operation. A Fairchild PT-19 flown by Lt. Ray Murdock on a search for a C-46 down in the jungle in Burma and carrying a Naga chief to direct him to the crash site, itself suffered engine failure and crashed five miles from the field. A search for them was immediately started and they were located by sundown that same day. The rescue party slashed their way up a mountainside through dense jungle and found the Naga chief had died, and the PT-19 pilot, James Green was barely alive under the wreckage. He had concussion, a broken pelvis, internal injuries, a broken jaw, and serious facial cuts. While the flight surgeon in the party worked on Green, the others began to clear a site big enough for a YR-4 to land (this was in the days before rescue hoists). It took two weeks to do this, and in the meantime Green was kept alive by two surgeons. The helicopter faced a perilous mission as the clearing was small, and gusty conditions combined with limited engine power made the rescue a very risky undertaking. However, a YR-4 flown by Lt. Raymond Murdock was assigned, Murdock being chosen as the lightest qualified pilot available. The copilot's seat had been removed and replaced with a sheet of plywood. The patient was loaded aboard, and with barely enough power to hover more than a few feet off the ground, Murdock managed to hover turn facing down the mountain and accelerated away to base at Shingbwyang.



Tug Wreck

S-55 lifts a crewman from a tug, off Okinawa, itself stranded while attempting to pull the Army coastal tanker in the background free from an adjacent reef.



The S-51 and S-55 saw extensive service during the Korean War. An S-51 was featured in "The Bridges at Toko Ri", a film made from the novel by James Michener of the same name which included a rescue operation in Korea.



Development of the Helicopter Rescue Hoist

By Sergei Sikorsky

The U.S. Navy was not interested in helicopters during the first half of World War II. However, in mid-1942, Sikorsky delivered the first XR-4 helicopter to the US Army Air Force for evaluation. Based on favorable results, the Army awarded contracts to Sikorsky Aircraft for two larger and more powerful helicopter models, the XR-5 and XR-6. A few far-sighted aviators in the Coast Guard (then part of the Navy) speculated that the helicopter could be used to protect Allied convoys against German submarines. The Coast Guard helicopter "lobby" in the US Navy gained in credibility when, in early 1943, the British placed large orders for R-5 helicopters and showed interest in 800 of the smaller R-6 helicopters.

In the fall of 1943, the Navy assigned responsibility for the test and evaluation of the helicopter to the Coast Guard, and directed the establishment of a special helicopter training and evaluation squadron at the Coast Guard Air Station at Floyd Bennett Field near New York City. Commander Frank Erickson USCG trained at Sikorsky's South Avenue plant, and was the Coast Guard's first helicopter-rated aviator. The world's first "Helicopter Training and Development Base" was activated on 19 November, 1943. The first task was to set up pilots' and mechanics' training courses for the first group of pilots and mechanics.

On 3 January, 1944, the destroyer "Turner" blew up while at anchor off Sandy Hook, New Jersey, two explosions sending it to the bottom. The weather was terrible, a northeasterly storm driving snow and sleet with winds gusting to forty miles and minutes later, Third Naval District headquarters phoned Commander Erickson to ask if it were possible for a helicopter to fly to the Battery, pick up blood plasma and deliver it to the Sandy Hook hospital where the "Turner" survivors were being treated. Despite the weather that had closed every airport in the area, Erickson volunteered to fly the mission himself. He was successful and his flight marked the first "life-saving" mission in helicopter history.

During 1944 The US Army Air Force activated a secret detachment on the border between India and Burma, designated the 1st Air Commando group. As details of the Burma mission involving rescue from small jungle clearings reached Floyd Bennett, Commander Erickson studied the operation. Suddenly, the idea struck him that what the helicopter needed to become the perfect rescue vehicle was a winch or hoist that could be used to lift a man from the water or the ground and put him into the cabin of the hovering helicopter. By May, 1944, several ideas were being tested. Long-range concepts were to be tested on the larger, more powerful R-5 (HO2S) and R-6 (HOS) when they became available, in roughly one year. There was no lack of ideas, some of which are still being used today.

Very quickly, Commander Erickson settled on the idea of a simple hoist that would lift a man to the doorway of the R-4 cabin. A simple boom was fitted to the side of the helicopter, braced to the landing gear. Gradually-increasing weights were fixed to the boom. In a series of flights in May, it was determined that a 200 lb. weight would not pose a problem either for lateral control authority or C.G. point of view.

By June of 1944, Machinist Mates' Oliver Berry and George "Red" Lubben, with a small team, built and installed the first hoist on HNS-1 (R-4) BuAir No. 39040. Most of the parts had been "moonlighted" from junk yards. The most important element was the 12-volt rotary actuator that once had been a bomb hoist. The main problem was the 1,000 to 1 gear ratio, which resulted in a painfully slow hoist speed. Another unexpected problem was the magnetic brake which had a tendency to slip when lifting significant loads, such as Coast Guard Commanders who insisted on personally testing the hoist. As a result, the hoist was limited to a 170 lb. load.

During July and August, 1944, work on the hoist continued. Various slings and harnesses were created by the parachute shop. In July, Mr. Robert Barry of the Sperry Gyro Company suggested that Commander Erickson contact the Vickers Hydraulic company, as he knew of a small hydraulic pump made by them that might work. A few days later, Barry returned with Vickers representative Tom Doe, Jr. After examining and measuring the hoist, Doe accepted the challenge of building two hoists with Vickers pumps, guaranteeing that they would lift 400 lbs. at two and a half feet per second. The first two prototypes were delivered from Vickers in September. The improvement was spectacular. Not only could the new hoist lift a full-grown man in heavy, water-logged survival gear from the water, but the hoist speed allowed the helicopter to go from hover to best climb speed far faster. The drawback was the fact that marginal power, not the hoist, now became the critical factor.

On 14 August, 1944, Igor Sikorsky visited Floyd Bennett, toured the helicopter activity and was carefully hoisted to an altitude of some ten feet. The hoist also attracted the interest of the Army Air Force and Helicopter Program Manager Col. Frank Gregory who visited Floyd Bennett to see the hoist in action. Colonel Gregory visited the Vickers hoist testing at the Coast Guard facility and ordered twelve units from Vickers. About this time, the first prototype of a rescue basket was built and tested. Most of the testing and demonstrations, were done over water, just off the Air Station's seaplane ramp, due to the erratic performance of the hoist. However, all of the Coast Guard pilots (and several RAF pilots as well) become well-trained in the art of dropping the hoist sling or basket within reach of the "victim."

Below: "Victim" AMM/C3 Sergei Sikorsky is hoisted from the sea.

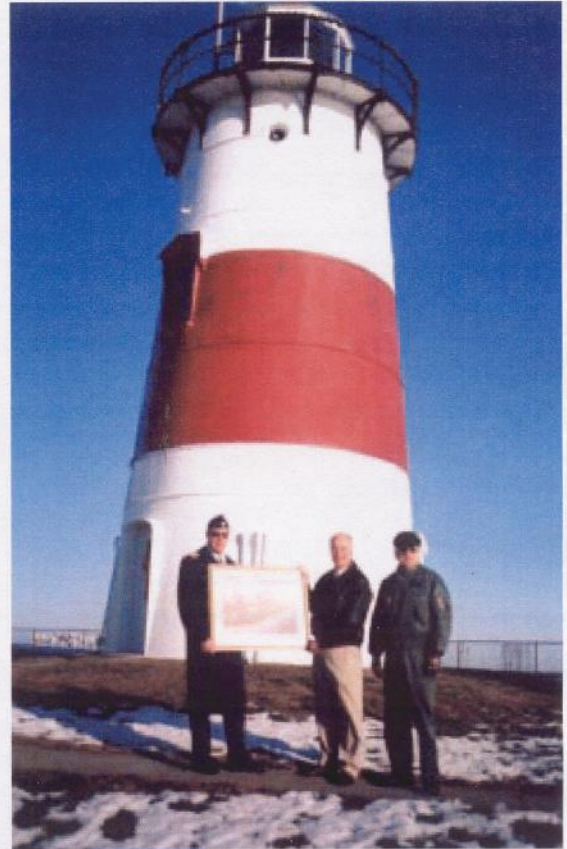


S-42 Painting presented to the Coast Guard

On Tuesday December 13, at 2:00 PM at the Stratford Lighthouse, the Igor I. Sikorsky Historical Archives presented the US Coast Guard with a framed print of a painting by artist Joseph Keogan depicting the Sikorsky S-42 Flying Boat flying over the lighthouse. The painting was accepted by Capt. Peter J. Boynton U.S.C.G. Commander, Long Island Sound Sector.

The painting depicts the aircraft, built in Stratford by Sikorsky Aircraft in Lordship, passing over the lighthouse in the early morning 71 years ago on August 1 1934 at the start of the record breaking flight. The pilots were Boris Sergievsky, Edwin Musik, and Charles Lindbergh. Using the lighthouse as the start and finish point, the aircraft broke eight World Records before landing eight hours later. That same morning a letter was received from the National Aeronautic Association urging the industry to return the majority of world records to the United States in order that the supremacy of American aviation might be measured by a readily understood yardstick. The company was able to reply to this with a letter of its own setting out the eight records that the S-42 had broken that very same day.

The painting was made possible with the kind assistance of US Coast Guard members on duty at the lighthouse who supplied the artist with material and details necessary to execute the painting.



**L.to R, both photos:
Capt. Boynton,
Joseph Keogan,
Hugh R. Brady.**

Photos: Ed Arva.

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