



Sikorsky Archives News

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September 14, 2014 Is

The 75th Anniversary of the S-46 (VS-300) *First Flight and the start of the Worldwide Helicopter Industry*



Igor Sikorsky perfected the single main rotor concept and the first practical helicopter in the 1940s. It was the break-through Configuration.

During this period, Sikorsky Aircraft designed, developed and produced the S-47 (R-4), S-48 (R-5), S-49 (R-6), S-51 (derivative of the R-5), S-52, and started

production of the S-55 helicopters. This issue of the newsletter is devoted to the highlights of Sikorsky Aircraft during the first decade in the helicopter design, development and manufacturing business. ☺

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Final Version Of The VS-300 Is Retired To The Ford Museum In Dearborn, MI



R-4

The first successful practical helicopter, the VS-300 now resides among the many other “firsts” in aviation in the transportation section of the Edison Institute, now called the Ford Museum at Greenfield Village, Dearborn, Michigan. Its designer and first pilot Igor Sikorsky, personally presented the aircraft to Henry Ford, Sr. after handling the controls for its last flight October 7, 1943. During the transfer ceremony, Igor Sikorsky stated that a new era of transportation has started.



Last Flight Of The VS-300

During the early 1940s, Sikorsky Aircraft received a contract from the U.S. Army for the R-4, the first production helicopter for the U.S. Military. A total of 135 were built including 8 for Great Britain.



Sergei Sikorsky on hoist sling

Igor Sikorsky and his eldest son Sergei were both passionate about the helicopter’s life saving capabilities, and are both seen in the photos demonstrating lift techniques with an external hoist. 🛖



Igor Sikorsky on hoist sling



The R-4 on left with floats is shown taking off from a tanker at sea and another R-4 landing on the U.S.S. Midway’s flight deck at right

The First Helicopter Mail Delivery Service was initiated in the fall of 1946 with the S-51

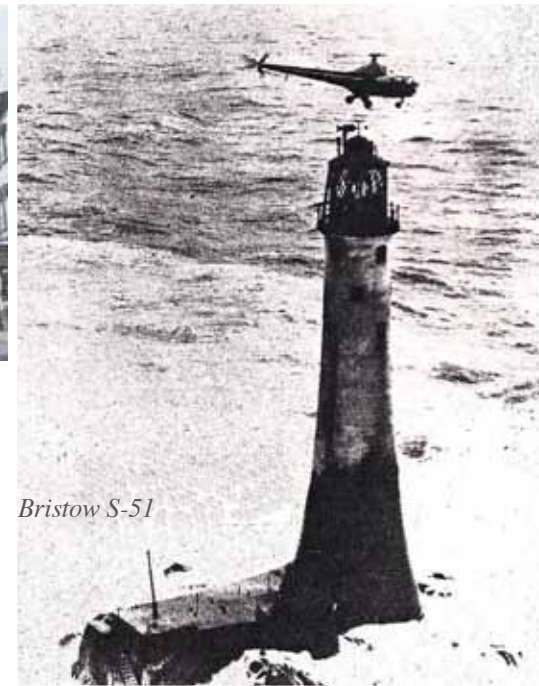
New England's first airmail flight was recorded back in 1926. Twenty years later, the S-51 delivered the mail from airport to post office doors. The Sikorsky helicopters were used in Bridgeport and New Haven, Connecticut, Portsmouth, New Hampshire, and in Worcester, Massachusetts.



S-51 Mail Service



S-51 Mail Service in Bridgeport, Connecticut



Bristow S-51

Westland Aircraft Limited in England was the first Sikorsky Licensee for the S-51 helicopter in September 1946. A team of British design, test and manufacturing engineers worked with their Sikorsky counterparts for information transfer enabling Westland to produce the S-51 in England. Their flight test pilot, Allen Bristow eventually formed his own company Bristow Helicopters. The photo on the far right shows the S-51 providing transportation for the Wolf Rock Lighthouse off Cornwall during 50 miles per hour plus wind conditions. 🇬🇧

Over 150 Sikorsky R-4 And R-6 Helicopters Went To War During The Mid 1940s

The R-4, R-5 and R-6 were the first helicopters in the world to be put into quantity production for the U.S. Army, Navy, Coast Guard, British Royal Air Force and Royal Navy. The R-4 and R-5 were built by Sikorsky and the R-6 were built by Nash-Kelvinator to Sikorsky designs. 🇺🇸



R-4, R-6 and R-5 in front



First helicopter production line in Bridgeport, CT



Dimitri (Jimmy) Viner

The capability of using helicopters to perform rescues and other missions operating from Navy vessels during Atlantic and Caribbean fleet maneuvers in the first quarter of 1947, was demonstrated by Dimitri (Jimmy) Viner, Chief Test Pilot for Sikorsky Aircraft

Jimmy Viner piloted the S-51 helicopter operating from the U.S. Aircraft Carrier Franklin D. Roosevelt to demonstrate the capability of the aircraft. On the first few days at sea, Jimmy picked up and delivered ship-to-ship correspondence “guard mail” in navy parlance covering a dozen vessels in thirty five minutes. Ordinarily, the “guard mail” keeps a destroyer busy from sun-up to sun-down. Carrying the mail became routine for the S-51 as the cruise progressed.

A few days later, Jimmy flew the fleet’s senior surgeon over to the carrier Randolph in time for an emergency operation on a young crewman. Countless hours were saved during the maneuvers by ship-to-ship helicopter shuttles. The forward gun turret of the battleship Missouri made a perfectly adequate helicopter landing pad.

Jimmy transferred a submarine commander from the FDR to the sub Greenfish, which had surfaced nearby. This is the first time an aerial transfer had ever been made. When the FDR left Norfolk, Va., at the start of the cruise, the harbor pilot was flown ashore by the S-51 helicopter, completing in a few minutes an operation usually requiring a couple of hours. 🍷



Surgeon transfer

HO3S-1 (S-51) Preparing To Make A Delivery To The Submarine Greenfish.



S-51 lands on the forward gun turret of the battleship Missouri

First Naval Rescues By The S-51 Operating From The U.S. Aircraft Carrier Franklin D. Roosevelt Make Naval Aviation History In 1947



USS Franklin D. Roosevelt

One flier escaped death by a split second thanks to swift, skillful handling of the helicopter. It happened on February 18, 1947 southeast of Bermuda. Viner and Lieutenant Joe Rullo, a naval aviator assigned as observer on all the helicopter flights, were cruising along not far aft of the FDR. This was their customary position on what is called “plane guard”. They were keeping a close watch on the launching and recovery of the carrier’s planes.



The Landing Signal Officer directs an S-51 (HO3S-1) Helicopter Landing On The FDR

Several SB2C dive-bombers were landing. Suddenly, one plane spun out of a turn at low altitude. Even before the craft struck water, Viner nosed the S-51 down and plummeted toward the impending crash. The SB2C splashed and sank immediately. Pulling up over the crash site, Viner and Rullo saw no sign of life. Then the pilot, Lieutenant Commander George R. Stablein, bobbed to the surface. The crewman, August J. Rinella, perished in the accident, either knocked out by the

impact or unable to free himself from the smashed airplane. Badly hurt and unable to inflate his life jacket, Stablein went down twice and was sinking a third time as Viner nosed the helicopter right down to the water. Rullo lowered his hoist cable directly into the drowning man’s hands. Stablein clutched frantically at the cable, grabbed it and hung on.

Viner lifted the S-51 clear of the waves as Rullo used the hydraulic hoist to haul the 230 pound Stablein up alongside the helicopter’s open door. Stablein, was too dazed to fasten a rescue belt harness and held on to the hoist cable, At the top of the hoist, his fingers were pinched by the pulley and he released his grip. Split second teamwork by Rullo and Viner saved the day. Rullo threw his arm around the falling man and Viner instantly tilted the helicopter sharply to the right, which swung Stablein into the helicopter instead of back into the water. Six downed fliers were rescued from the sea by the S-51 during the Atlantic and Caribbean fleet maneuvers. 🇺🇸

The 1940s Decade Marks The Point When The Navy Replaced Ships With Sikorsky Helicopters For Rapid Air Transit Of Supplies. Personnel and for Rescue Operations.



HO3S-1 rescuing downed pilot before his feet get wet

The S-51 (HO3S-1) was selected for the Navy’s primary aircraft carrier helicopter support mission. 229 aircraft were built for this mission.



HO3S-1 landing on carrier



HO3S-1 on plane guard

The first Naval Helicopter Training School was set up at the Blimp Training Facility in Lakehurst, New Jersey. Sikorsky helicopters shared the facility and air space with blimps, which was a unique combination.

Helicopter Utility squadron HU-2 was established July 1, 1946. The number of Sikorsky HO3S-1 helicopters grew from six to twenty aircraft. 45 officers and 270 enlisted men carry out the squadrons four missions: train pilots; train mechanics; utilize helicopters for present Navy needs, and evaluate and develop the helicopter for the future.

The squadron turned out about fifty qualified pilots during the year. After forty flight hours, or approximately six weeks of flight training, the trainee was qualified and ready for active duty. Lieutenant Commander W. R. Leonard, operations officer of the squadron stated, “The old seaplane is

being discarded for ship duty and being replaced with the Sikorsky helicopters”.

The duty was as varied as the uses which the Navy had discovered for the helicopter. It could be air-sea rescue work; transfer of mail, crewmen, supplies; photo reconnaissance; search and rescue, or plane guard. The location of operation could be any place on the globe under all weather and sea conditions.

Naval operators of the Sikorsky helicopters reported a high 92 percent level of availability under all operating conditions. Excerpts from the log of James Sanders, Sikorsky Aircraft service representative tells of rescues as well as work carried out by the HO3S-1s in icy wind gales and high seas in the North Atlantic in November, The fleet operations occurred 400 miles off the northeast coast of Boston requiring rescue operations for ditched aircraft in 40 knot winds and waves of 35 feet high. ☺



The Secret Land Is A 1948 American Documentary Film About An American Expedition To Explore The Antarctic named “Operation High Jump”. It Won The Academy Award For Best Documentary Feature.

This film documents the largest expedition ever undertaken to explore Antarctica. The expedition was led by Admiral Richard Byrd and was code named “Operation High Jump.” The film was made by the U.S. Navy and involved 13 ships including a submarine, 23 aircraft and about 4700 men.

The film was shot by photographers from all branches of the U.S. Military. One purpose was to explore and photograph several thousand square miles of island and coastal areas that had not been previously mapped. The film was made right after World War II. The navy used fixed wing aircraft and the Sikorsky HO3S-1 helicopters for air support.



The HO3S-1 helicopters required blade tie downs to prevent blade damage in the harsh Antarctic winds and weather conditions. Antarctic Penguins were curious about the strange bird in their midst, but they were friendly and the helicopter became part of their family.



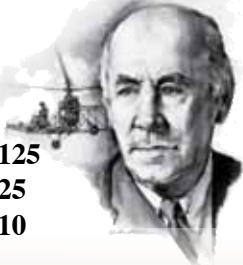
The decade of the 1940s was filled with opportunities to demonstrate what can be accomplished with the helicopter. Igor Sikorsky created a flying machine that would change the world for the betterment of the human race as shown in the photo of the first civilian rescue by a Sikorsky R-5 in 1945 off of Penfield Reef, Fairfield, Connecticut.

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The First Sikorsky Helicopter Decade – The 1940s



Newsletter designed and edited by Lee Jacobson and Sikorsky Archive Members with graphic assistance by Edgar Guzman



“It would be right to say that the helicopter’s role in saving lives represents one of the most glorious pages in the history of human flight”.

— *Igor Sikorsky*

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