# USS Akron (ZRS-4) Airship 1931-1933

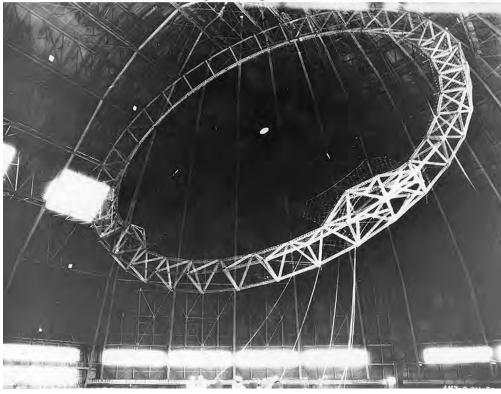
USS *Akron*, first of a class of two 6,500,000 cubic foot rigid airships, was built at Akron, Ohio. Commissioned in late October 1931, she spent virtually all of her short career on technical and operational development tasks, exploring the potential of the rigid airship as an Naval weapons system. During the remainder of 1931 and the early part of 1932, *Akron* made flights around the eastern United States and over the western Atlantic, including one trial of her capabilities as a scouting unit of the fleet. Damaged in a ground-handling accident at Lakehurst in late February 1932, she was again ready for flight two months later and began tests of her ability to operate an embarked unit of airplanes. These would greatly extend her reconnaissance reach and enhance her defenses against hostile air attack.

During May and June 1932, *Akron* was based on the West Coast, performing a successful search mission over the Pacific as part of a fleet exercise. However, a fatal accident early in this deployment, in which two Sailors lost their lives, provided further proof that handling large airships at their ground bases was an inherently risky proposition. Another accident, while leaving the hangar at Lakehurst in August, reinforced this conclusion.

*Akron* flew extensively during last half of 1932, further refining her airplane support and search capabilities. In January and March 1933 she twice went south, visiting Florida, Cuba and Panama to explore the base sites in the U.S. fleet's southern operating zone. While beginning a trip to the New England area, *Akron* encountered a violent storm over the New Jersey coast and, shortly after midnight on 4 April 1933, crashed tail-first into the sea. Only three of the seventy-six men on board survived this tragic accident. During the search for other possible survivors, the Navy non-rigid airship *J-3* also crashed, killing two more men.

Soon after *Akron*'s loss, Navy divers examined her wreckage, which was located about a hundred feet below the ocean surface east of Atlantic City, N.J. More recently, in June 2002, the research submarine *NR-1* revisited the airship's crash site, where much of her collapsed framework remains visible on the Continental Shelf, nearly seventy years after the great dirigible went down.

Photo # NH 43121 Erecting the first ring of USS Akron's frame, March 1930



USS Akron (ZRS-4)

Erecting the airship's first main frame ring, during her construction in the Goodyear-Zeppelin Corporation hangar at Akron OH, 24 March 1930.

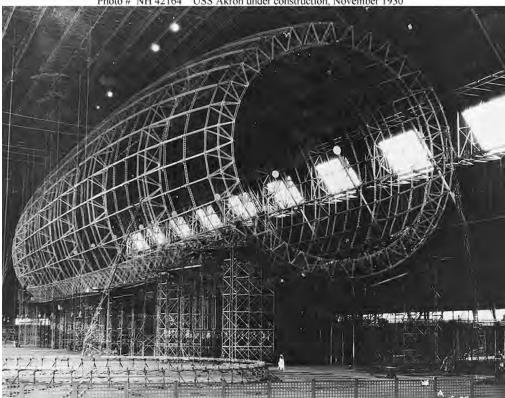


Photo # NH 42164 USS Akron under construction, November 1930

USS Akron (ZRS-4)

Under construction in the Goodyear-Zeppelin Corporation Airdock hangar at Akron OH, 5 November 1930. At this point, the airship's framework has been completed far enough to hold seven bags of lifting helium.



USS Akron (ZRS-4)

The airship's control car in place below her framework, during construction in the Goodyear-Zeppelin Corporation Airdock hangar at Akron OH, circa early 1931.

Photo # NH 42167 Mrs. Herbert Hoover and other notables at christening of USS Akron, August 1931



Christening of USS Akron (ZRS-4), 8 August 1931

Notables on the speakers' stand during *Akron*'s christening ceremonies, held in the Goodyear-Zeppelin Corporation Airdock hangar at Akron OH. Paul W. Litchfield, President of the Goodyear-Zeppelin Corp. is seated just to left of the microphones. Seated to the right of the microphones are (left to right): RAdm. William A. Moffett, Chief of the Bureau of Aeronautics; First Lady of the United States Mrs. Herbert Hoover, *Akron*'s Sponsor; and David S. Ingalls, Assistant Secretary of the Navy for Aviation.



Photo # NH 42163 Paul W. Litchfield speaking at christening of USS Akron, August 1931

Christening of USS Akron (ZRS-4), 8 August 1931

Paul W. Litchfield, President of the Goodyear-Zeppelin Corp., speaking at *Akron*'s christening ceremonies, held in the Goodyear-Zeppelin Airdock at Akron OH. Seated to the right of the speaker are RAdm. William A. Moffett, Chief of the Bureau of Aeronautics, and First Lady of the United States Mrs. Herbert Hoover, *Akron*'s Sponsor.

Photo # NH 42159 RAdm. William A. Moffett speaking at christening of USS Akron, August 1931



Christening of USS Akron (ZRS-4), 8 August 1931

RAdm. William A. Moffett, Chief of the Bureau of Aeronautics, delivers his address at Akron's christening ceremonies, held in the Goodyear-Zeppelin Corp. airship hangar at Akron OH. The airship's control car is in the background.



Photo # NH 42166 Ass't Sec.Nav. David S. Ingalls speaking at christening of USS Akron, August 1931

Christening of USS Akron (ZRS-4), 8 August 1931 David S. Ingalls, Assistant Secretary of the Navy for Aviation, speaking during Akron's christening ceremonies, held in the Goodyear-Zeppelin Corp. Airdock hangar at Akron OH.

Photo # NH 46110 LCdr. C.E. Rosendahl at christening of USS Akron, August 1931



Christening of USS Akron (ZRS-4), 8 August 1931

LtCdr. Charles E. Rosendahl, Akron's Prospective Commanding Officer, leaving the airship's control car during christening ceremonies held in the Goodyear-Zeppelin Corp. Air dock hangar at Akron OH.

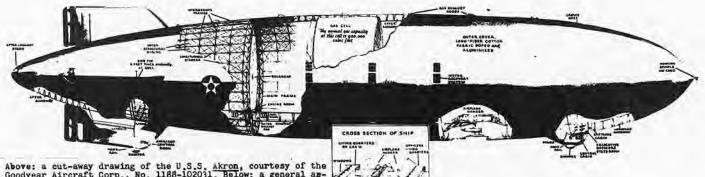


Photo # NH 42168 Part of the crowd at christening of USS Akron, August 1931

#### Christening of USS Akron (ZRS-4), 8 August 1931

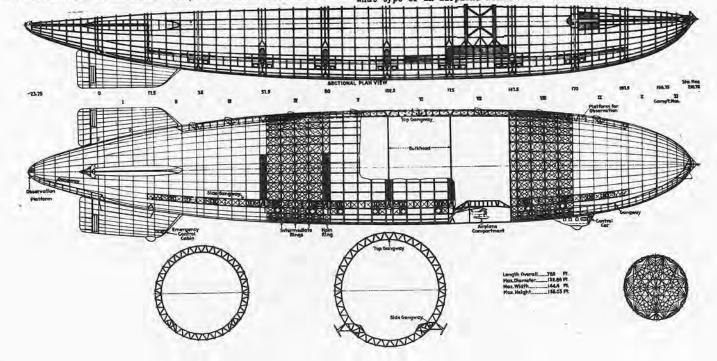
Some of the 150,000 people who attended christening ceremonies, held in the Goodyear-Zeppelin Corp. Airdock hangar at Akron OH. A choir is singing in the right center. Note the exhibits in the right background, including a large Goodyear tire hung overhead.

Photo # NH 80769 Drawings of USS Akron, circa 1931



Above: a cut-away drawing of the U.S.S. Akron, courtesy of the Goodyear Aircraft Corp., No. 1183-102031. Below: a general azrangement drawing of the Akron by the Goodyear-Zepelin Corp., photo-copied from a folding drawing accompanying Garland Fulton's "Some Features of a Modern Airship--U.S.S. Akron," in the <u>Transactions</u> of the Society of Naval Architects and Marine Engineers, Vol. 39 (1931). Notice that the airship's threekeel system did not extend from stem to stern. Aft, the two lower keels terminate at frame 17.5; the upper keel at intermediate frame 23.75. Forward, the three keels terminate at. frame 187.5; while a "fourth" keel runs along the centerline from frame 170 to the nose. Also, main frame 198.75 shows a

"conventional" taut-wired frame with diamond trusses; this was the only frame of its type in the <u>ZRS4&5</u>. Compare the configuration of the fins and the size and location of the control car as shown on this drawing, with same on Project I, shown on following page. Although a seaplane type is shown in the airship's hangar, it should be recalled that there was some uncertainty during 1930-1931 as to what type of an airplane would be used with the airships.



USS *Akron* (ZRS-4) Cutaway and interior structural drawings, circa 1931.

Photo # 80-G-462246 USS Akron in flight, November 1931



USS Akron (ZRS-4)

In flight on 2 November 1931. A Rear Admiral's flag is flying just aft of her control gondola.

Photo # 80-G-462238 USS Akron over the Maryland Eastern Shore, November 1931



**USS** *Akron* (**ZRS-4**) In flight over the Maryland Eastern Shore, 2 November 1931.



USS Akron (ZRS-4)

In flight on 2 November 1931. A small civilian airplane is visible above and beyond her bow.

Photo # NH 63070 USS Akron in flight, 1931



USS Akron (ZRS-4)

In flight in 1931. Note the small civilian airplane above the airship's forward end.

Photo # NH 51493 USS Akron in flight, November 1931



USS Akron (ZRS-4) In flight on 2 November 1931.

Photo # NH 43900 USS Akron over southern Manhattan Island, circa 1931-1933



**USS** *Akron* (**ZRS-4**) Flying over the southern end of Manhattan Island, New York City, circa 1931-1933.



USS Akron (ZRS-4)

Flying over Philadelphia PA, with USS *Los Angeles* (ZR-3) in the distance, circa late 1931 or early 1932. The Schuykill River waterworks and the Philadelphia Art Museum are visible in the lower center of the photograph.

Photo # NH 44099 USS Akron over Arlington, Virginia, with Washington, D.C, beyond



#### USS Akron (ZRS-4)

Flies over Arlington VA, with the Potomac River and Washington DC, in the background, circa 1931-1932. Note construction work on the Virginia approaches to the Memorial Bridge, with the Lincoln Memorial and the Reflecting Pool at the bridge's DC end. The Munitions and Main Navy Buildings are visible on the north (left) side of the Reflecting Pool..



USS Akron (ZRS-4)

Flying off the Panama Canal Zone, 15 March 1933. The airship's N2Y-1 training plane is suspended in her hangar opening.



Photo # NH 98038 USS Akron in flight off the Panama Canal Zone, March 1933

USS *Akron* (ZRS-4) Flying off the Panama Canal Zone, 15 March 1933. A N2Y-1 training plane is flying just below her.



**USS** *Akron* (**ZRS-4**) In flight, circa 1931-1933.





**USS** *Akron* (**ZRS-4**) Flying through clouds, circa 1931-1933.



USS Akron (ZRS-4)

Landing at Sunnyvale CA, following her trans-continental flight from Lakehurst NJ, 13 May 1932.

Photo # NH 42156 USS Akron approaches the mooring mast at Sunnyvale, California



**USS** *Akron* (**ZRS-4**) Approaches a mooring mast while landing, circa 1931-1933.



**USS** *Akron* (**ZRS-4**) Approaches a mooring mast while landing, circa 1931-1933.

Photo # NH 98082 USS Akron at NAS Lakehurst at dawn, circa 1931-1933



USS Akron (ZRS-4)

Making a morning takeoff or landing, at NAS Lakehurst NJ, circa 1931-1933. Note mist just above the ground in front of the hangar, and the Sun in the distance.



USS Akron (ZRS-4) Leaving the Goodyear Zeppelin Airdock at Akron OH, circa September-October 1931. Photo # NH 86344 USS Akron at the Goodyear airship plant, Akron, Ohio, circa 1931

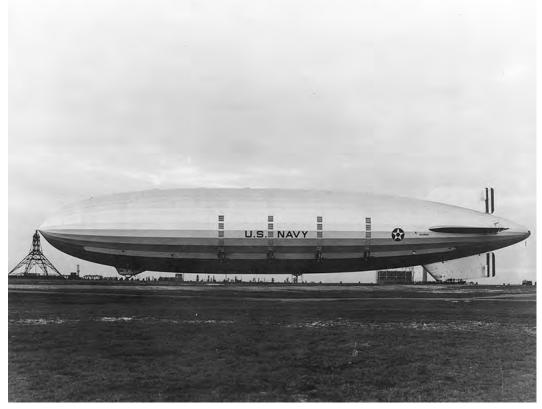


**USS** *Akron* (**ZRS-4**) At the Goodyear Zeppelin airship plant, Akron OH, circa October-November 1931.

Photo # NH 44098 USS Akron at NAS Lakehurst, N.J., circa 1931-1933



USS Akron (ZRS-4) Moored near the airship hangar at Naval Air Station Lakehurst NJ, circa 1931-1933. Photo # NH 42158 USS Akron moored at NAS Lakehurst, N.J., November 1931



USS Akron (ZRS-4) Moored at Naval Air Station Lakehurst NJ, 2 November 1931.

Photo # NH 84206 USS Akron at Camp Kearny, San Diego, California, May 1932



USS Akron (ZRS-4) At Camp Kearny, San Diego CA, following her trans-continental flight from the East Coast, 12 May 1932.



Photo # NH 42157 USS Akron moored at Sunnyvale, California

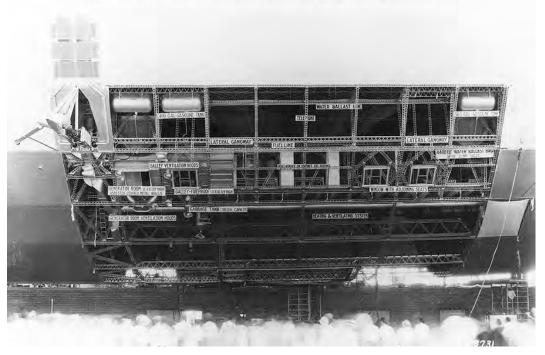
USS Akron (ZRS-4) Moored at Sunnyvale, California, probably in May 1932.

Photo # 80-G-462245 USS Akron's tail section, November 1931



# **USS** *Akron* (**ZRS-4**) View of the airship's tail section, while she was in flight on 2 November 1931.

Photo # NH 80776 Section of USS Akron's starboard side, during christening ceremonies, 1931



#### USS Akron (ZRS-4)

View of the airship's lower starboard side, amidships between frames 125 and 147.5, taken during her commissioning ceremonies at Lakehurst NJ, 27 October 1931. This section was left uncovered until after the ceremonies so the Public could see into *Akron*'s interior. Important design features are labeled.

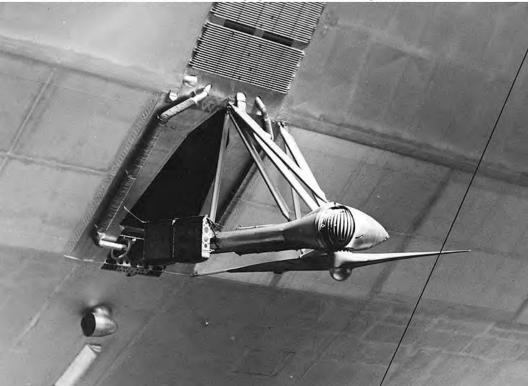
Photo # NH 42170 USS Akron at Sunnyvale, California, 1932



USS Akron (ZRS-4)

Close-up view of the airship's lower port side midships area, taken at Sunnyvale CA, circa May-June 1932. Note the Sailor on scaffolding, possibly cleaning *Akron*'s fabric skin.

Photo # NH 97978 One of USS Akron's propellers in the horizontal position, circa 1931-32



USS Akron (ZRS-4)

Close-up view of one of the airship's propellers, swiveled to its horizonal position to provide lift for takeoff, circa 1931-1932.

Photo # 80-G-462222 Crew's Mess on board USS Akron, October 1931



**USS** *Akron* (**ZRS-4**) Scene in the crew's mess on board the airship, 15 October 1931.

Photo # NH 42161 Engine room scene on board USS Akron, circa 1931-32

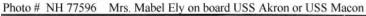


**USS** *Akron* (**ZRS-4**) Scene in one of the airship's engine rooms, circa 1931-1932.

Photo # NH 42162 Wash basin on board USS Akron, circa 1931-32

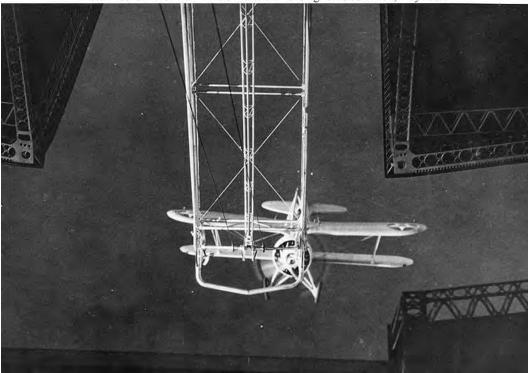


**USS** *Akron* (**ZRS-4**) Scene on board the airship, circa 1931-1932, showing a crew member getting a cup of water from a wash basin. Note the aluminum structural members.



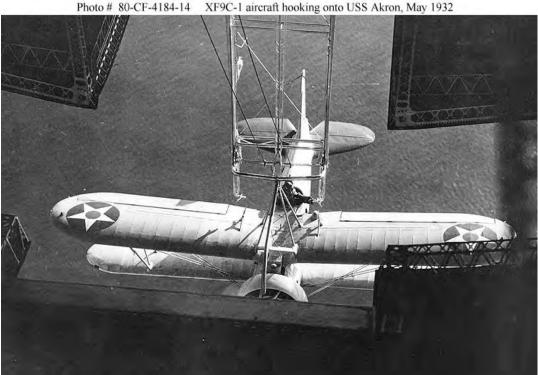


USS Akron (ZRS-4) or USS Macon (ZRS-5) Mrs. Mabel Ely, Widow of pioneer aviator Eugene B. Ely In the control car of a U.S. Navy airship (either USS Akron or USS Macon), circa 1932-1935. Photo # 80-CF-4184-10 XF9C-1 aircraft "landing" on USS Akron, May 1932



USS Akron (ZRS-4) and Curtiss XF9C-1 "Sparrowhawk" fighter

Approaches the trapeze landing gear of Akron, while landing on the airship, 3 May 1932. Photographed from inside Akron's hangar.

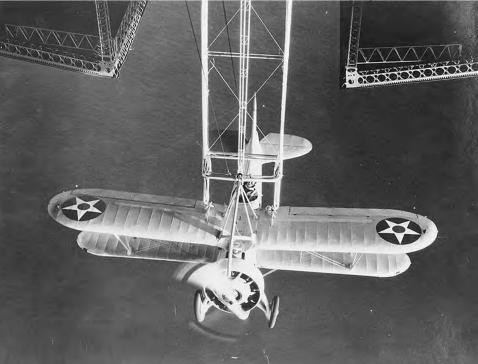


XF9C-1 aircraft hooking onto USS Akron, May 1932

# USS Akron (ZRS-4) and Curtiss XF9C-1 "Sparrowhawk" fighter

Hooks onto the trapeze landing gear of Akron, while landing on the airship, 3 May 1932. Photographed from inside Akron's hangar. Pilot is Lieutenant Howard L. Young, who is reaching out to guide the trapeze's stabilizing arm into a corresponding fitting on the plane's upper wing.

XF9C-1 aircraft hooked onto USS Akron, May 1932 Photo # 80-G-416534

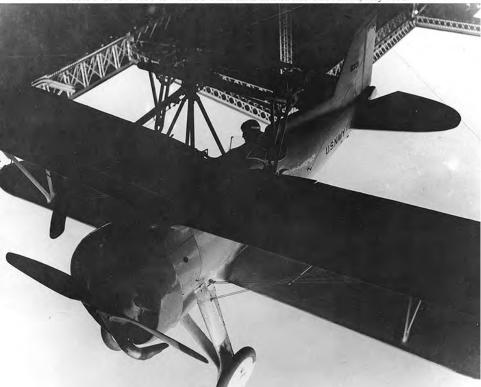


USS Akron (ZRS-4) and Curtiss XF9C-1 "Sparrowhawk" fighter Is lifted into the hangar of Akron, after hooking onto the airship's trapeze landing gear, 3 May 1932, during exercises over the Atlantic Ocean near NAS Lakehurst NJ. Pilot is Lt. Howard L. Young.



Photo # 80-G-416532 Curtiss XF9C-1 "Sparrowhawk" is lifted aboard USS Akron after landing, 1932

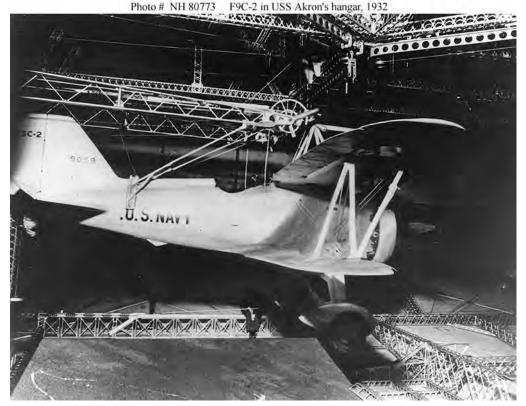
USS Akron (ZRS-4) and Curtiss XF9C-1 "Sparrowhawk" fighter Is lifted into the hangar of Akron, after hooking onto the airship's trapeze landing gear, 3 May 1932. Photo # 80-CF-4184-15 XF9C-1 aircraft is hoisted into USS Akron, May 1932



USS Akron (ZRS-4) and Curtiss XF9C-1 "Sparrowhawk" fighter Is lifted into the hangar of *Akron*, after landing on the airship, 3 May 1932. Pilot is Lt. Howard L. Young.



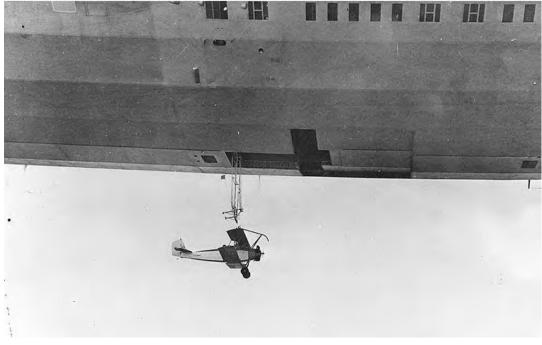
USS Akron (ZRS-4) and Curtiss F9C-2 "Sparrowhawk" fighter About to hook onto the aircraft trapeze of Akron, circa 1932-1933. Note the configuration of Akron's trapeze, which had been modified from its original arrangement in mid-1932.



USS Akron (ZRS-4) and Curtiss F9C-2 "Sparrowhawk" fighter

Inside the airplane hangar of *Akron*, 1932. Part of the airplane handling system is visible above the plane. Another "Sparrowhawk", in flight, is partially visible through the airship's hangar opening, at the bottom of the view.

Photo # 80-G-463185 USS Akron releases its N2Y-1 aircraft, while in flight, May 1932

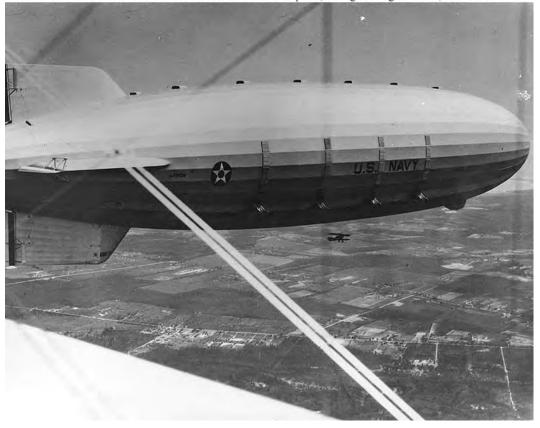


USS Akron (ZRS-4)

Launches a Consolidated N2Y-1 training plane (Bureau #A8604) during flight tests near NAS Lakehurst NJ, 4 May 1932.

Note the airship's trapeze aircraft handling gear suspended from her hangar bay.

Photo # NH 84208 USS Akron recovers its N2Y-1 airplane, during training exercises, circa 1932



**USS** *Akron* (**ZRS-4**) Recovers her N2Y-1 airplane, during training exercises, circa 1932.

Photo # NH 80775 Consolidated N2Y-1 serving with USS Akron, 1932



# **Consolidated N2Y-1 training plane**

Photographed while serving as "hook-on" familiarization trainer for USS *Akron* (ZRS-4), 1932. An O3U-1 (Bureau # 8871) is in the background. Photo # NH 77430 Officers of USS Akron Air Group, 1933

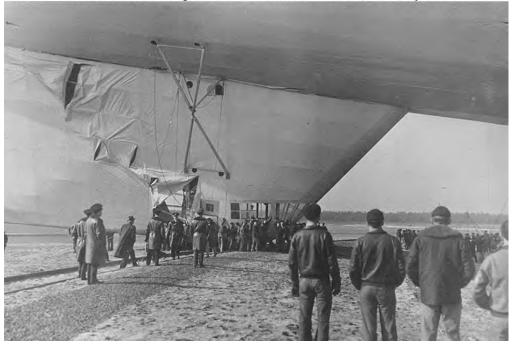


#### USS Akron (ZRS-4)

Pilots of the airship's Heavier-Than-Air unit pose in front of one of their Curtiss F9C-2 "Sparrowhawk" fighters, at Naval Air Station Lakehurst NJ, in 1933 sometime after *Akron*'s loss. Present are (left to right): Lieutenant (Junior Grade) Robert W. Lawson,

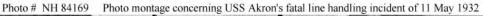
Lieutenant Harold B. Miller, Lieutenant Frederick M. Trapnell, Lieutenant Howard L. Young Lieutenant (Junior Grade) Frederick N. Kivette.

Photo # NH 42160 Damaged tail of USS Akron, at Lakehurst, N.J., 22 February 1932



USS Akron (ZRS-4)

Damage to the airship's lower fin, 22 February 1932. *Akron* was being removed from her hangar at NAS Lakehurst NJ, when the wind caused her tail to break loose from the rail car used for maneuvering the airship on the ground. A party of Congressmen was waiting to board *Akron* at the time, and RAdm. William A. Moffett, Chief of the Bureau of Aeronautics, was also present. This photograph was taken immediately after the accident, and shows RAdm. Moffett in the left center, facing the camera. Though her fin was seriously damaged, *Akron* was repaired in about two months.





USS Akron (ZRS-4)

Montage of four photographs of the incident in which three line handlers were pulled into the air when *Akron* accidently climbed while attempting to land at Camp Kearney, near San Diego CA, on 11 May 1932. The two views at left show Seaman Apprentice Charles M. Cowart clinging to the trail line as the airship crew slowly winched him on board. The photo at right is of Cowart on board the *Akron* after his rescue. The view second from right shows Sailors Nigel Merton Henton and Harold Edsal holding onto the lines just after *Akron* lifted off. Both men fell to their deaths immediately after the photograph was taken.

Photo # NH 72639 Naval Reserve O2C-1 aircraft return to base after searching for USS Akron, April 1933



Loss of USS Akron (ZRS-4), 4 April 1933 U.S. Navy Reserve O2C-1 aircraft returning to their base at Floyd Bennett Field NY, at sunset, after searching off the New Jersey coast for survivors of the lost airship Akron.



Photo # NH 55468 USS Akron survivors receive commendations from SecNav Claude Swanson

Survivors of USS Akron (ZRS-4)

Receive commendations from the Secy. of the Navy, in his Navy Dept. office, shortly after the airship's loss on 4 April 1933. Those present are (from left to right): Asst. Secy. of the Navy Henry A. Roosevelt; Secy. of the Navy Claude Swanson; Adm. William V. Pratt, Chief of Naval Ops.; LtCdr. Herbert V. Wiley, senior survivor; Boatswain's Mate 2nd Class Richard E. Deal, survivor; and Aviation Metalsmith 2nd Class Moody Erwin, survivor. Erwin, whose left hand is bandaged, is apparently wearing a borrowed uniform, as its insignia is that of a Hospital Corpsman 3rd Class.



# Airship Hindenburg disaster, 6 May 1937

German Lieutenant Colonel Joachim Breithhaupt places a wreath at the American Legion Chapel, Naval Air Station Lakehurst NJ, on Memorial Day, 31 May 1937. The wreath was laid in memory of those who lost their lives in the crashes of the airships *Hindenburg*, *Macon* (12 February 1935) and *Akron* (4 April 1933).