

The camaraderie during the journey extended to a surprise party held for PO Dehn in honor of his birthday on March 12. PO Locklear put his inventive culinary skills to work and baked a cake in an electric frying pan. Candles had not been a priority item for the trip but the problem was solved when filter-tip cigarettes were substituted. It was a complete surprise to PO Dehn and the party was enjoyed by all hands.

Tension and excitement began to mount on March 12. This was the eighth day of the voyage and *Snow Bird* was closing in on the record for continuous non-refueled flight, which was 200 hours and 12 minutes aloft. *Snow Bird* officially eclipsed this record at 0245 (EST) on March 13, and broke a second record later that day. The distance record established by the German airship *Graf Zeppelin* in August 1929 fell when *Snow Bird* passed the 6,980-mile mark in her tricontinental journey.

Snow Bird continued her flight, having established two new world records. On March 15, 1957, at 1844, *Snow Bird* landed at NAS Key West. The voyage took

264.2 hours and covered a distance of 9,448 miles. No airship of any type had ever flown that far or remained aloft that long without refueling.

Snow Bird was met by a large crowd. Crew members were personally congratulated by Admiral William F. Halsey, Jr., on behalf of President Dwight D. Eisenhower and the U.S. Navy. Awards were presented and special commendations read. It was a great moment for the 14 members of *Snow Bird*'s crew and a proud achievement for the United States.

For his contributions as commander and pilot of *Snow Bird*'s record flight, Cdr. Hunt was awarded the Harmon International Trophy on November 12, 1958. The award was presented to him by President Eisenhower.

XVII. The Demise of LTA and a Possible Revival

Despite such impressive demonstrations, there followed a slow reduction in the airship force. On June 28, 1957, ZPs

1 and 4 were disestablished, and ZX-11 was disestablished on December 1 of that same year. Still, there was hope that decision makers could be convinced of the value of the airship to Naval Aviation and that the trend could be reversed.

During this period, airships continued to undertake unusual projects not in the realm of normal operations. In 1958, a ZPG-2 was assigned to assist in an arctic weather research project, which was to evaluate the use of airships in the harsh arctic environment. The airship proceeded across the Arctic Circle without incident. Mail and supplies were dropped to scientists at their arctic ice station and a number of scientific experiments were conducted by the airship's crew before they returned to South Weymouth on August 12, 1958. In all, it had been a 9,400-mile journey, the longest arctic flight ever made by a non-rigid airship.

But the stand-down continued. On November 30, 1959, ZP-2, the oldest airship patrol squadron in the Navy, went out of business. ZW-1 was redesignated ZP-1 on January 3, 1961, and continued as an ASW squadron. But the handwriting was on the wall.

That same month, an N-series airship flew cross-country from NAS Lakehurst to MCAF El Toro to participate in an oceanographic research project off the coast of Calif. Her return flight in March of that year was the last major long-distance flight of an airship in the U.S. Navy.

On June 21, 1961, the Secretary of the Navy announced plans to terminate the Navy's LTA program and, by the end of October 1961, ZPs 1 and 3 were disestablished. They were the last operating units of the Navy's LTA branch.

The last flight of a naval airship on August 31, 1962, saw the end of the LTA era in the Navy. During the following decade, various individuals and organizations attempted to rekindle the Navy's interest in LTA. These attempts were generally not successful although some minor studies on LTA were conducted. During the energy crisis in 1973 the Navy, as well as many other government departments, made fuel economy the number one priority. With energy conservation in mind, the Navy established an LTA Project Office at Naval Air Development Center, Warminster, Pa., on July 29, 1975. The purpose of the office was to investigate the status of LTA technology, in terms of new advances and improvements in technology and the economic feasibility of LTA applications in various roles.

The LTA Project Office studied the development of heavy-lift hybrid airships and evaluated airships for maritime surveillance and other missions. Through these studies, standard design

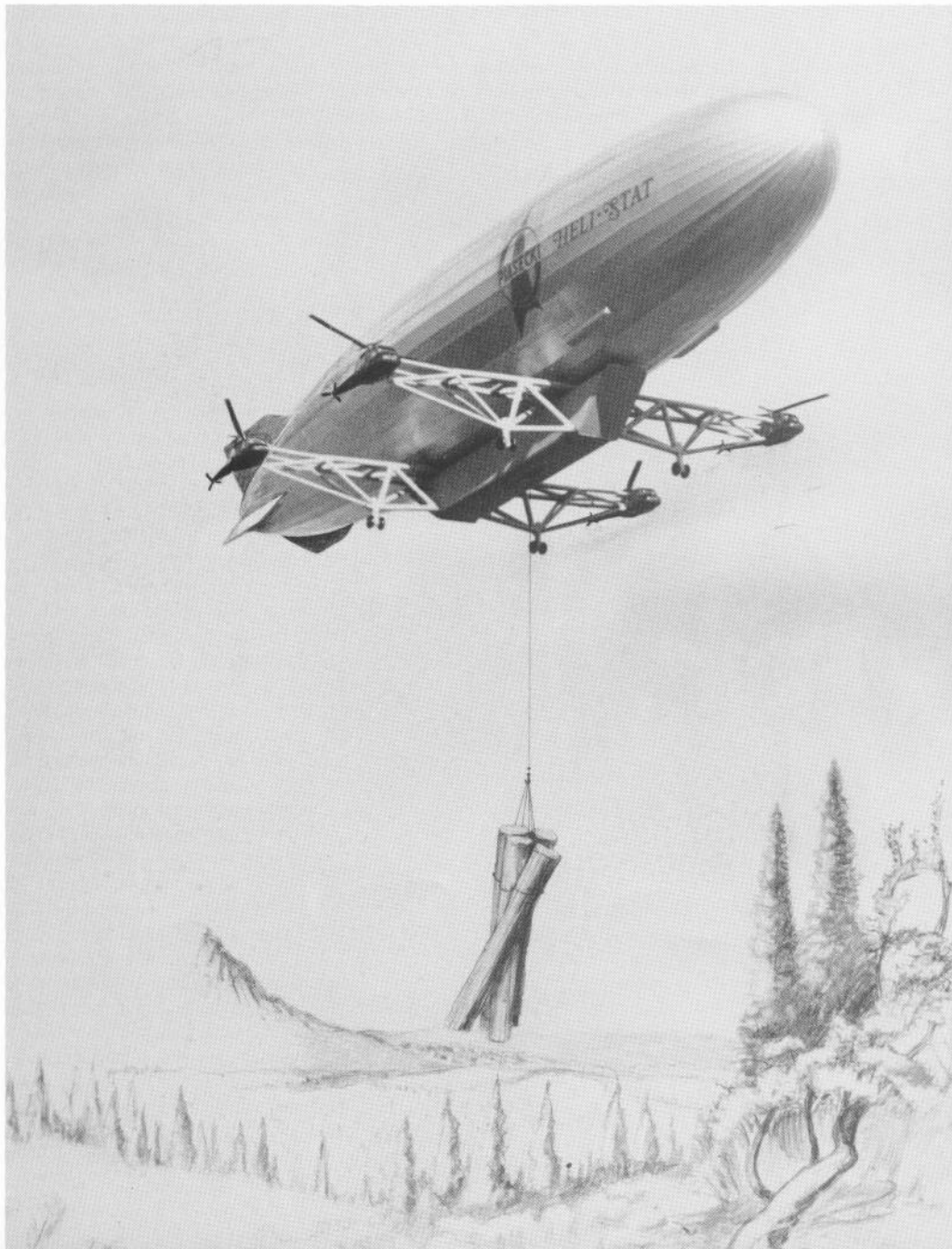


criteria for LTA vehicles were developed by assessing the technological improvements and mating them with the particular requirements of a specific mission. The airship performance capabilities determined were used in feasibility studies by the Navy, Coast Guard and NASA.

In March 1977, the Navy was involved in testing a scale model of an LTA vehicle called "Aerocrane." This hybrid design combined the buoyant lift of a helium envelope with the aerodynamic lift of a rotor. The vehicle was to act as a transport of heavy loads from 50 to 100 tons.

In 1980, a contract for a heavy-lift vehicle was awarded to the Piasecki Corporation, and was called the Heli-Stat Air Vehicle. The contract for the Heli-Stat was issued by the U.S. Forest Service and it was set up to be administered by the

Below, an artist's rendering of the Piasecki Heli-Stat heavy-lift vehicle. The Heli-Stat crashed during tests at Lakehurst. Right, a scale model of the aerocrane tested by the Navy in the late 1970s.



Navy. The Heli-Stat is a quadrotor hybrid airship, used to demonstrate the feasibility of a short-haul, heavy-vertical-lift, aerial-logging vehicle. This hybrid vehicle combines an airship with four helicopters. The Navy provided contractual and technical assistance to the Forest Service, and furnished some government-surveyed equipment to the contractor to minimize sponsor costs. The Heli-Stat completed static testing of the interconnecting structure, mating the helium bag with the helicopters. During flight testing of the Heli-Stat on July 1, 1986, one of its helicopters experienced a failure and the vehicle crashed.

The LTA Project Office has continued to expand its study and research program. In 1984, the office completed its Patrol Airship Concept Evaluation

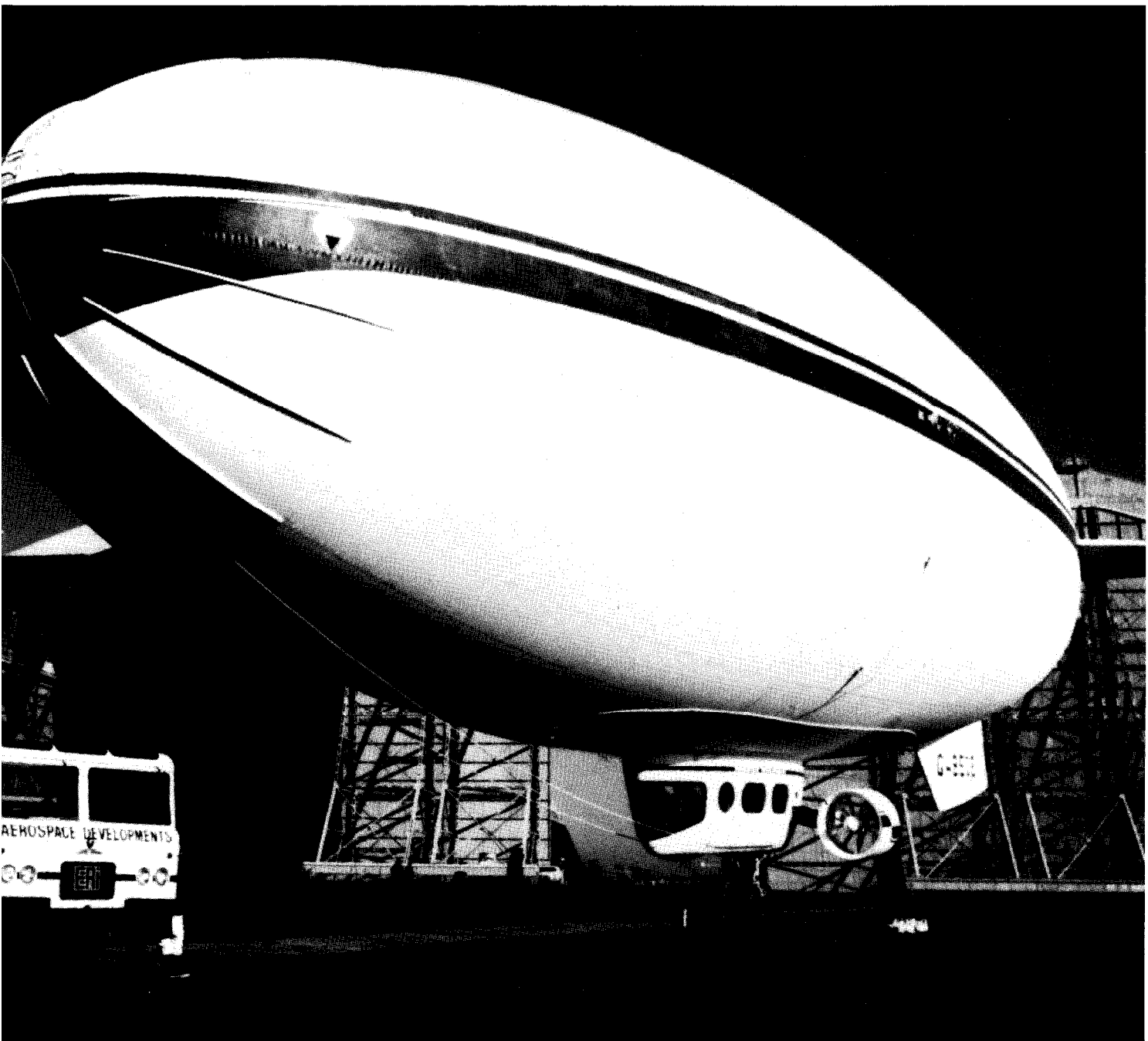
Study. This involved flight testing and mission-oriented technical evaluations of the tilt-fan/tilt-rotor airship to determine its maritime patrol applications for the Navy and Coast Guard. During the study, a 250-flight hour technical demonstration was conducted on a British-built airship, the *Skyship 500*. It arrived at Patuxent River on June 23, 1983. Testing included various sensors that were placed aboard the airship.

As a result of the testing, several new initiatives have taken shape. Studies are being developed on a Battle Surveillance Airship System that involves a complete surveillance system featuring an airship for use with a surface group, particularly noncarrier groups. Another study is being conducted by the Coast Guard on

using the airship as part of a Patrol Airship Law Enforcement program. This involves the use of radar and infrared equipment in an airship on an actual operational basis to assess its future role in such missions. Also, a feasibility study will be made by the Air Force on using airships in the Arctic to perform transport roles over long distance in support of unmanned radar sites.

The subject of LTA vehicles and their revival continues to generate interest as solutions are sought for new problems in the nation's maritime security. With the incorporation of new technology, LTA could play an important part in the coastal patrol missions performed by the Coast Guard and, perhaps, even supplement Navy fleet assets. ■

The tilt-fan/tilt-rotor concept incorporated in the British *Skyship 500* was tested at NAS Patuxent River, Md., in 1983.





In the past, airships operated as an element of naval task forces (top). The Skyship 500 (above) may be the wave of the future and again provide an LTA contingent in a surface battle group or task force.





Ouch, accidents do happen. A docking accident at NAS Richmond, Fla., during WW II.

A gathering of LTA craft.

