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GOODYEAR

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AIRSHIPS OVER AMERICA



Story of the Blimp . . .

The non-rigid airship (blimp) is a development from the balloon which was the first form of flight (Montgolfier 1783).

Actually an airship is a balloon with a streamlined shape. Its engines drive it forward, while rudders and elevators control its direction and altitude, make it directable or dirigible.

The larger, rigid airships (Zeppelins) have a complete metal framework inside their envelopes. Blimps hold their shape only through pressure of the lifting gas.

All American airships are inflated with a non-inflammable gas, helium, which is found, in quantities, only in this country.

Since any gas contracts or expands with changes in temperature and altitude, two small air-filled balloons (ballonets) are built inside

Portable mooring masts make blimps independent of hangar shelter.

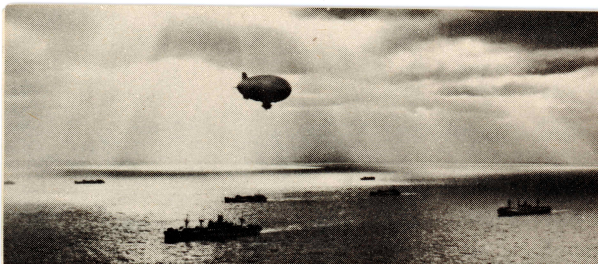
the bag. When helium expands it forces air out of the ballonets, when it contracts air is forced into ballonets from the slipstream of the propellers. Air intake tubes, resembling stovepipes, are located back of the propellers.

The pilot controls direction of the blimp by foot pedals, drives the blimp up or down by a vertical steering wheel.

Blimps land on a single wheel under the car, can taxi across the field like an airplane to get flying speed and so carry a fuel load considerably greater than it can lift statically.

Unlike the airplane, the airship does not depend upon its power plant to keep it in the air. Lift is obtained from the helium, while engines are used to push the blimp forward. An airship can remain aloft under control of the pilot even if all its engines are cut off.





Blimps guarded convoys during the war, escorted 89,000 ships without loss of a single vessel.

Blimps in World War II

Because of their unusual ability to fly slowly, permit crews to see deep under the water and to operate under visibility conditions which ground other aircraft, blimps served the United States and Allies effectively in two world wars.

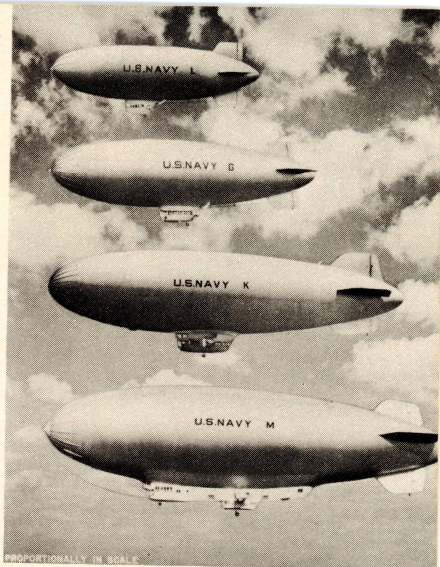
In World War II surface craft, airplanes and blimps made up an anti-submarine team which drove the U-boats out of American waters along the Atlantic, Gulf of Mexico and the Pacific, cleaned out the Caribbean and the South American coast. After the invasion of Africa, a blimp squadron flew across the Atlantic, set up bases in the Mediterranean, in France, Italy and North Africa, bottled up the straits of Gibraltar against passage by enemy craft.

Blimps also guarded the convoys. They escorted 89,000 ships loaded with millions of troops, billions of dollars worth of military equipment and lend-lease supplies, without the loss of a single vessel.

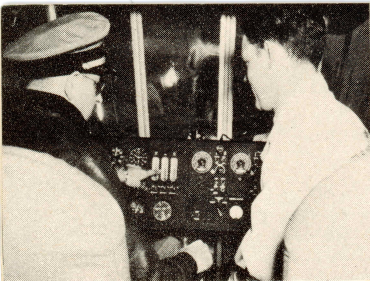
Shipping losses fell from 454 vessels in 1942 to eight in 1944.

Despite their size and seeming vulnerability, few blimps have been lost in either war by enemy action or storms.

War-time blimps were built in four sizes, the "L" type training ship (same size as the Goodyear blimps), 123,000 cubic feet; "G" (larger trainers) 196,000 cubic feet; "K" full-size patrol ships, 456,000 cubic feet and "M", longer range patrol ships, 725,000 cubic feet.

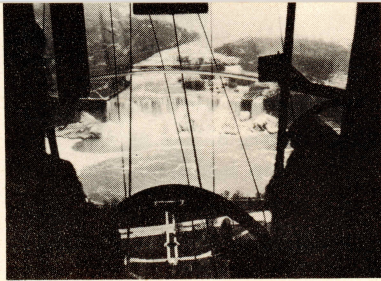


Goodyear built 168 airships for the Navy, four sizes in proportionate scale as indicated by above picture.



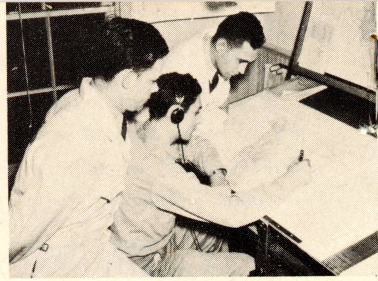
Instrument panels of a blimp are not particularly complicated.

Goodyear blimps have flown over 36 states.



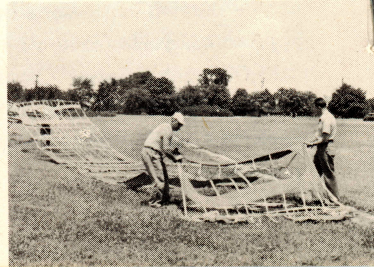
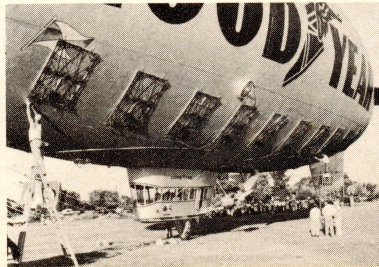
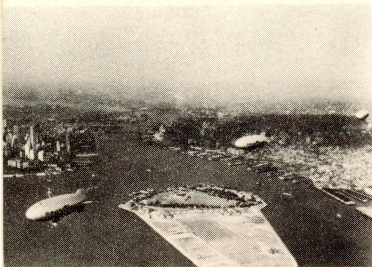
Blimps offer opportunity for careful scrutiny of water or ground below.

Neon lighting for "blimpcasting" is a Goodyear development of 16 years.



When touring blimps have facilities for receiving latest weather information.

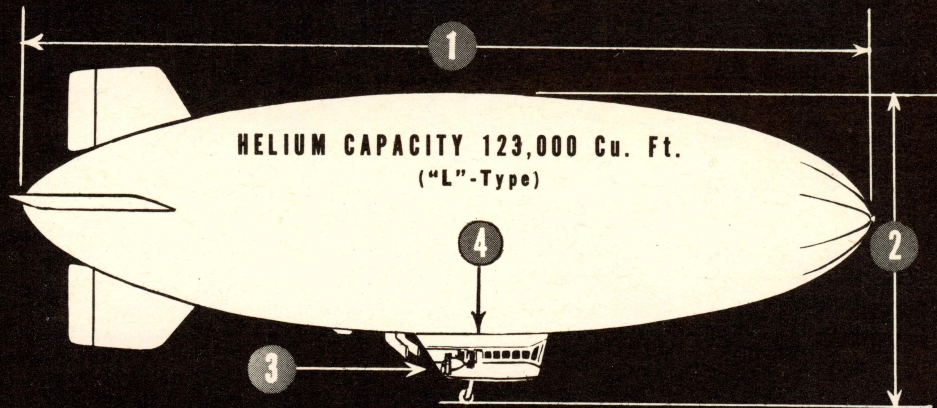
Part of a normal blimp touring operation is carrying of advertising banner.





Home base for all Goodyear airships is at Wingfoot Lake, Akron.

INTERESTING FACTS AND FIGURES . . .



Neon messages carried on side of the ship are carried in six by four feet frames. Message is set on a perfor-

ated inch-wide tape which is fed into the sign system from a standard typewriter keyboard.

ON A TYPICAL GOODYEAR BLIMP

1 and 2. The "L" type ship shown here is 150 feet long, has a diameter of 40 feet, stands 51 feet high on its landing wheel, is inflated with 123,000 cubic feet of helium.

3. It is powered by two Warner Scarab engines of 145 horsepower each, mounted on outriggers. It has a cruising speed of 50 miles per hour, top speed of 62 miles, a range of 600 miles.

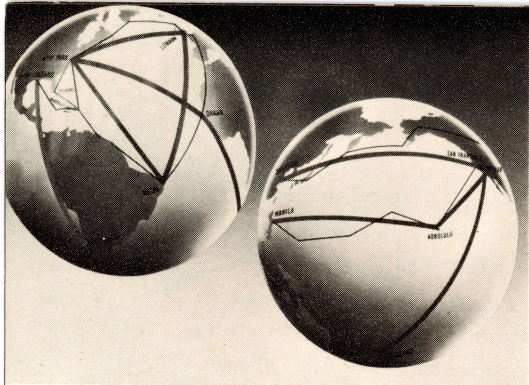
4. The car is 22 feet long, seven feet

wide, is made principally of duraluminum and aluminum alloy.

The envelope is of three-ply rubberized fabric.

Blimps usually fly at two to three thousand feet altitude, but have a practical ceiling of 10,000 feet.

Ships and pilots are licensed by Civil Aeronautics Authority. The airships carry a two-way radio, auxiliary generator for lights, fuel pumps and power needs.



The Airship of the Future . . .

In any world airways program the rigid airship has a definite and important place. Not in competition with the airplane but supplementary to it.

In the over-ocean field of air transportation, the airship is the only medium which can offer both large cargo capacity and passenger accommodations comparable to those provided by deluxe ocean liners.

Commercial airships have a remarkably high safety record. In all history of commercial airship operations only 13 passenger lives have been lost, those on the hydrogen filled Hindenburg.

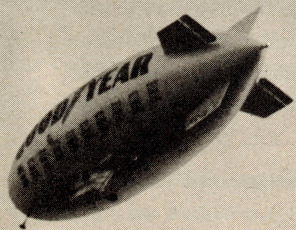
America has a monopoly on helium—the only safe non-inflammable airship gas which offers an exclusive opportunity to utilize lighter-than-air transportation.

Scientific advances in recent years make it possible to build into airship structures far greater strength than ever before without increase in weight. Strength of aluminum alloys alone has been increased almost 70 per cent. Similar advances have been made in many other airship materials.

The rigid passenger airship of the future is still in the project stage and is not under construction. Purpose of Goodyear's present airship operation is to increase operating and construction experience, add to weather information, train pilots for the larger ocean-going rigid airships, and to demonstrate to the public the value of lighter-than-aircraft as part of America's world transportation system.

Projected plans call for various types of passenger service, deck arrangements, providing deluxe, pullman type or tourist accommodations. Even the tourist type would have corridors and lounges, dining room large enough for 64 people, with an average of 25 square feet of space per passenger. Fares for the San Francisco-Honolulu trip are indicated at around \$85 for tourist type, \$215 for deluxe type.

Rigid airships offer the quietest and smoothest form of transportation and air or sea sickness is not a passenger complaint.



GOODYEAR THE WORLD'S FIRST CHOICE TIRE

