

# R-100 Tests New Structural Features

*Aeronautics*

## Hundreds of People Have Safely Crossed Ocean in Airships

THE safe arrival at Montreal, Canada, of the British airship R-100 after a non-stop flight of 3,400 miles from Cardington, England, shows again that the day of regular trans-Atlantic travel by airship is not far distant.

Since the R-100, one of the two largest airships in the world, is an experimental ship and in many respects is unlike any that has ever been built, the success of this trip helps to establish the present superiority of the airship over the airplane for trans-Atlantic travel. However, the only airplane that can carry nearly as many passengers as an airship, the giant German Dornier DO-X, is yet to make a flight from Europe to America. Her performance will be watched with even more interest than that which now attends the R-100.

### 475 Crossed by Airship

Safety proclaims the airship as the logical means of crossing the Atlantic by air. With the arrival of the R-100 bearing 44 persons, about 475 people have crossed the North Atlantic non-stop by air, it is reported. Of this number statistics show that approximately 442, or 93 per cent., have made the passage by airship and only about 33, or seven per cent., have crossed by airplane.

There have been nine attempts to fly the North Atlantic by rigid airships and all have been successful; no lives have been lost. Thirty-seven attempts have been made to fly by airplane and only 13 of these have been successful. The great loss of life resulting from the airplane attempts is well known.

### No Pay Load in Planes

None of the airplanes carried a pay load, while the Graf Zeppelin on each of its five trips took 20 passengers and several tons of mail and express. Seven persons on the R-100 are observers. Two other crossings were made by the British R-34 and one by the U. S. S. Los Angeles.

The chief innovation in the design of the R-100 is its "fatness." The Graf is a slender cigar while the R-100 curves throughout its entire length in graceful lines. It is about 70 feet shorter than the German ship and a

third larger in diameter. This feature is said to give it great strength to resist shearing stress similar to that which caused the Shenandoah disaster in the United States.

### Only 42 Parts

Although more than five years elapsed from the awarding of contract in 1924 to the delivery of the ship, new methods developed during that time should greatly speed up the production and reduce the cost of similar airships to be built in the future. For example, every girder was made up from only seven different parts and there were only 42 different kinds of parts in the whole framework. Thus the pieces were ordered in lots of half-millions and the building of an airship was made a mass-production job.

The beams and girders of the R-100 were not made from aluminum alloy rolled into shape like iron and steel, as has been the case in the past. Instead, thin strips of the light metal

were coiled into spiral tubes and riveted along the overlap. Structural pieces built in this fashion are claimed to be more uniform in size and strength than others, and more easily tested and inspected.

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### Find No Fruit Fly

ENTOMOLOGICAL inspectors in the fruit-fly area in Florida did not find any of the troublesome pests during the month of July, it has been learned from the U. S. Department of Agriculture officials.

This does not mean, however, that the infestation has been completely stamped out, for a small focus may still exist somewhere in the state, capable of starting the mischief all over again if vigilance is relaxed. For this reason growers are zealously spraying with poison bait sprays even where the fly has not been seen for months.

*Entomology*

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## The Passenger Pigeon—Continued

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to those persons who were nearest to me. Even the reports of the guns were seldom heard, and I was made aware of the firing only by seeing the shooters reloading.

No one dared venture within the line of devastation. The hogs had been penned up in due time, the picking up of the dead and wounded being left for the next morning's employment. The pigeons were constantly coming, and it was past midnight before I perceived a decrease in the number of those that arrived. The uproar continued the whole night, and as I was anxious to know to what distance the sound reached, I sent off a man accustomed to perambulate the forest, who, returning two hours afterwards, informed me he had heard it distinctly when 3 miles from the spot. Toward the approach of day, the noise in some measure subsided; long before objects were distinguishable, the pigeons began to move off in a direction quite different from that in which they had arrived the evening before, and at

sunrise all that were able to fly had disappeared. The howling of the wolves now reached our ears, and the foxes, lynxes, cougars, bears, raccoons, opossums and polecats were seen sneaking off, whilst eagles and hawks of different species, accompanied by a crowd of vultures, came to supplant them, and enjoy their share of the spoil.

It was then that the authors of all this devastation began their entry amongst the dead, the dying, and the mangled. The pigeons were picked up and piled in heaps, until each had as many as he could possibly dispose of, when the hogs were let loose to feed on the remainder.

Persons unacquainted with these birds might naturally conclude that such dreadful havoc would soon put an end to the species. But I have satisfied myself, by long observation, that nothing but the gradual diminution of our forests can accomplish their decrease, as they not unfrequently quadruple their numbers yearly, and always at least double it.

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