

## AERONAUTICS

# Longer But Safer Take-Offs May Follow Air Safety Report

## Urge Use of Less Power at Time of Greatest Strain; Full-Feathering Propellers and New Belts Recommended

COMMERCIAL airliners will require more time and room to get off the ground in the future, but will do so with greater safety, if recommendations of the Air Safety Board are adopted by the Civil Aeronautics Authority and the aviation industry.

Airlines should take less power out of their engines at take-off, the time of greatest motor strain, the Board declared in a report on a Braniff Airways accident which killed eight last March 27. This will mean longer take-offs. Three other mishaps in the last year are also studied in the report.

Engine failure, the most important remaining cause of air transport trouble can in these cases be blamed on operating engines at higher powers than is safe, the investigation indicated.

Universal adoption of full-feathering propellers and of a standard handier type of seat belt than is found on older plane types is also urged. Full-feathering propellers can be turned edgewise into the airstream and stopped from "windmilling" after engine failure. Vibration due to a "windmilling" propeller was at least partially to blame for Braniff Capt. Claude H. Seaton's inability to make a safe emergency landing after a cylinder in his left engine broke.

Two of the survivors reported they had trouble unfastening the seat belts that prevented them from being thrown around at the moment of the crash. A third passenger, who died, is known to have been conscious after the crack-up. Seat belts on newer planes are much simpler to open than the kind on the wrecked ship.

Two of the three Board members, Thomas O. Hardin and C. B. Allen, recommended that the C. A. A. raise mail pay where necessary to enable airlines to purchase the full-feathering propellers, which have been on the market for about a year and a half. Virtually all the 21-passenger DC-3's, the most familiar airliners, are already so equipped, but almost none of the other types are.

Early adoption of the Board's recommendations is seen from the fact that its last large group of suggestions, made in a report on a forced landing at sea last Dec. 19 which killed five people, has already been adopted by the airlines without the suggestions being made a part of the Civil Air Regulations by the C. A. A.

Only a few airports are so small that airliners will either have to continue operating present take-off powers or abandon them as stops.

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It gives better results, he added, in the acute than the chronic cases.

Trachoma is a very "catching" eye disease that afflicts between 2,000 and 3,000 new victims in the United States each year. About 10 out of every 17 who get trachoma go blind. Quarantine regulations forbid the entry into the United States of any person suffering with trachoma, but cured cases are allowed to enter.

Out of 167 Indian children treated at the Chemawa, Ore., school, the disease was "arrested" in 105 children, Dr. Townsend reported. Another 160 children have been treated at the school at Fort Defiance, Ariz., and have showed "marked improvement." Doctors will not be sure that these children have been "cured" until some months have elapsed without any recurrences of the disease. But 23 patients treated 18 months ago have had no relapses, so the outlook seems encouraging.

The patients feel better right away after the treatment is started, and the pain and soreness in their eyes begins to abate on about the third day. The sulfanilamide is given three times a day, by mouth, every day for five days. Then after two days of "rest" the treatment is resumed for another five days. At the end of this time the eyes are much better and the condition "arrested."

After another month, during which there is no improvement, the eyes begin to improve very rapidly, suggesting a cumulative effect of the drug.

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## CHEMISTRY

## "Spring Greens" from Weeds Rich in Vitamin C

PIONEER great-grandmother's "spring greens," made from all sorts of wayside weeds, were better than spinach when it came to providing vitamin C, it appears from a study reported (*Science*, Aug. 18) by Prof. R. C. Burrell and Miss Helena A. Miller, of Ohio State University.

Prof. Burrell and Miss Miller analyzed 15 kinds of weeds that have been used in cooked greens and salads, and found that most of them are superior to fresh spinach. Milkweed topped the list by far, with 6.556 milligrams of ascorbic acid per gram of fresh weight. Spinach averaged only 0.812 milligrams per gram, in comparison.

Other high scorers included poke-weed, dandelion, watercress, sorrel and (of all things!) skunk cabbage.

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## MEDICINE

# Sulfanilamide Aiding War Against Trachoma Blindness

A GROUP of 128 Indian children with healthy, bright, seeing eyes are living evidence that sulfanilamide, medicine's new and potent remedy for deadly germ diseases, is winning the war against blindness from trachoma.

Dr. James G. Gayley, director of health for the U. S. Indian Service, has just returned to Washington with glowing accounts of the successes being won in this war which was started last fall. Alto-

gether, 850 children have been treated with sulfanilamide, besides many adult patients. The drive was started among children because they can be reached through the schools and watched during treatment.

Sulfanilamide, Dr. Gayley believes, is the best thing doctors have had so far for fighting trachoma among the Indians. There is no question but that it brings about a marked improvement.