



**THROUGH THE OVERCAST**—It is this kind of low visibility landing that will be studied at MacArthur Field, New York, to improve flight safety.

## AERONAUTICS

## Bad Weather Landing

**Test plane to make runway approaches in bad flight conditions to find out what weather information pilot needs for safety.**

➤ A THOUSAND bad-weather landings are to be made at MacArthur Field, Great Neck, N. Y. during the next two years by the same plane with the same crew in a study aimed to improve flight safety during instrument weather approaches to runways.

The project is expected to get under way by Sept. 1. It is sponsored by the U. S. Air Navigation Development Board, a military-civilian agency promoting air navigation. Cooperating are the U. S. Weather Bureau and the Sperry Gyroscope Company.

The idea behind the study is ability to give the approaching pilot in overcast weather the complete picture of weather conditions at the airport to enable him to make a safe landing. Most weather reports now given by control towers to pilots are based on the height of the cloud bases and the horizontal visibility in the general area about the airport. In addition, the pilot needs "slant visibility." He comes in on a slope from his position above the earth down to the runway. He needs to know how far he can see on this slope.

The airplane to be used in the study will have a crew of six. The same plane and the same crew members will be used to eliminate plane and human factors. During each flight it is planned to have three ground crew members stationed near the entrance end of the runway, the threshold as it is called by aviators. They will use newly-developed instruments to measure ceiling and visibility.

At the same time, crewmen on the plane will note the exact moment that the ground below becomes visible and also when runway lights become visible along the slant line. Later plane and ground observations will be coordinated. Ground crews will use two newly-developed Weather Bureau ceilometers to measure cloud height, and a transmissometer installation to measure visibility. Sky brightness will be measured by a photometer and wind velocity by anemometer.

Science News Letter, August 2, 1952

"Shell molding" is a technique for making castings in a shell-like sand mold varying in thickness from  $\frac{1}{8}$  to  $\frac{3}{8}$  of an inch; the sand is bonded together with a thermo-setting binder.

## PUBLIC HEALTH

## Campaign to Wipe Out Rabies in Dogs

➤ SOME CAMPAIGNING of a non-political nature is now going on.

It is a life-saving kind of campaigning directed toward wiping out rabies, the deadly disease that brings the cry of "Mad Dog" far too often in these United States, in the opinion of American Veterinary Medical Association officials.

Each year more than 30,000 Americans have to take Pasteur anti-rabies treatment. This is a "national disgrace," the AVMA officials state.

"England, Australia and several other nations have virtually eliminated rabies, yet the disease has actually increased in the United States in the past 10 years," they point out. "It not only causes a heavy loss of animal life but is a continuing threat to human lives and should not be tolerated any longer."

Pasteur treatment does not always save human lives. It sometimes is very painful and can also cause death.

To help wipe out rabies in the United States, the AVMA suggests the following: 1. Vaccination of all dogs; 2. impounding of all stray dogs; 3. shipping restrictions on dogs which have not been vaccinated.

Vaccination against rabies protects the dog from getting the disease and thus also prevents his giving it to another animal or a human.

If bitten by a dog suspected of being rabid, or "mad," don't shoot the dog. Instead, take it to a veterinarian for observation. If the dog is not rabid, the bitten person does not need Pasteur treatment. If the dog is rabid, it will die and its brain can be examined to clinch the diagnosis.

Science News Letter, August 2, 1952

## TECHNOLOGY

## Apricot Cutter May Also Cut Costs for Growers

➤ A MODEL apricot cutter, built especially to fill the bill for California growers, is to be field tested in various parts of that state this summer.

A labor shortage and high costs of apricot production already have driven some growers to replace apricots with a more economical crop. Growers hope the cutter will help them cut costs as well as apricots.

The apricot cutter was developed by agricultural engineering specialists at the University of California's College of Agriculture, Davis. It was designed to cut the apricot along the natural suture, to take out the pit, then to spread the fruits for drying.

If the machine works, California's 175,000-ton apricot industry may receive a much-needed "shot in the arm," the University speculates.

Science News Letter, August 2, 1952