

# Searchlight and Mirrors Mark Aero Field

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ONE of the most important of the many types of apparatus used during the recent war was the *electric searchlight*. Without the help of these powerful eyes of detection undoubtedly it would have been extremely difficult to repulse night attacks of the enemy with any degree of success, either on land or on sea. Much has been written during the last few years of the many uses to which searchlights were put by the armies and navies, and a great deal has been learned during the period of conflict that can be of vast service to the civilized world

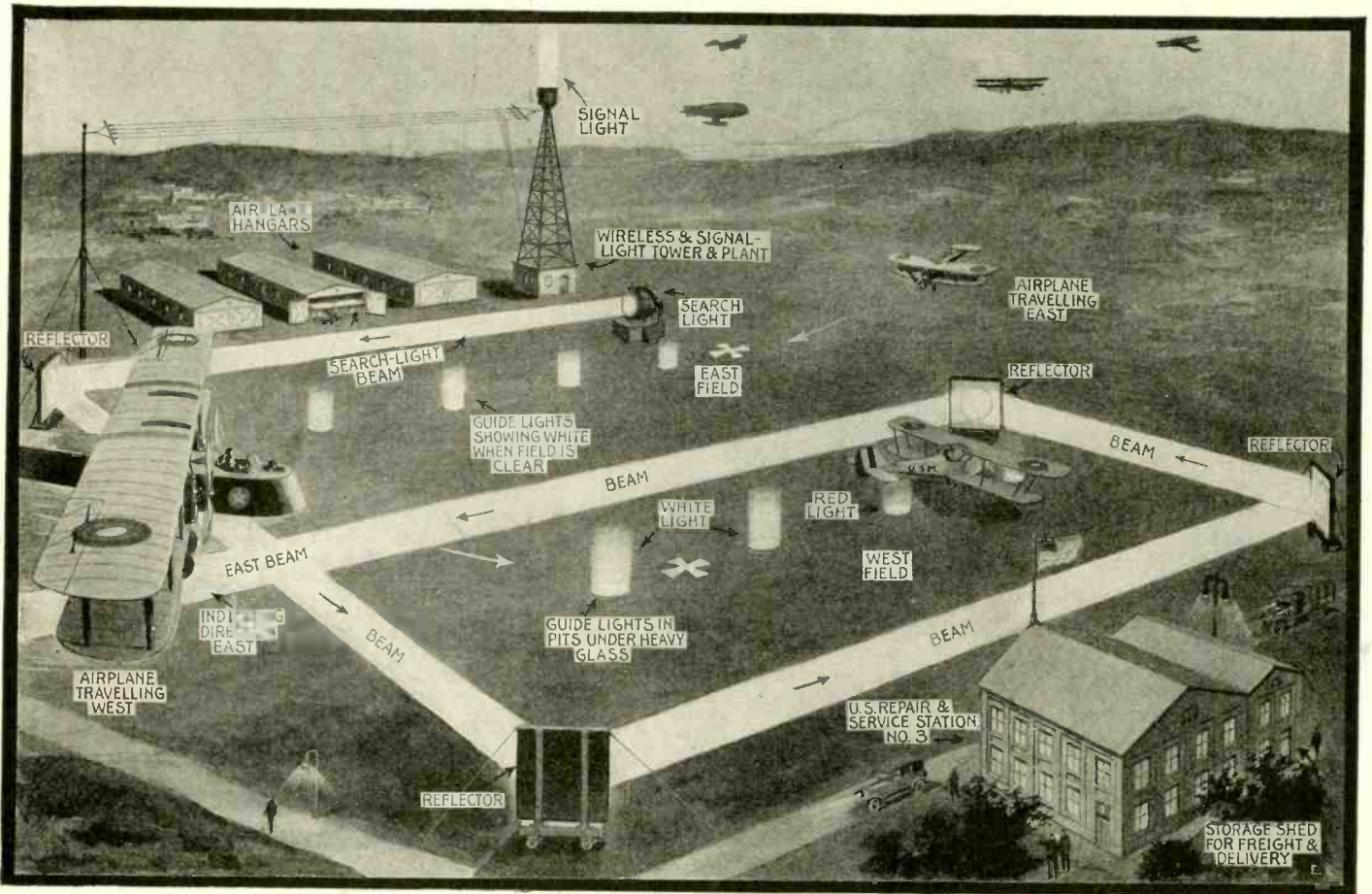
country, very little progress can be expected along these lines, especially where long distances are to be traversed on non-stop flights during the night.

For transcontinental services, the number and size of such stations would depend on the proposed routes of travel and the location of the cities, the distances between the latter and the number of airplanes that would be placed into operation. In the illustration are shown several parts of the equipment of a field for *day* and *night* use.

The most important feature of this method of marking the boundaries of the

of a portion of the field already being occupied by landed planes, the oncoming pilot is warned by these lights, the free part of the field being designated by the ordinary *white* lights and the occupied part blocked off by *red* lights, operated by a man assigned to this duty.

In order to more readily pick out a station at a distance when in low flight, a high tower with a signal light flashing automatically the number or name of the station in code, by means of a vertical beam of light, is built on one side of the field. The tower also can be used for the wireless equipment,



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Why Use Several High-Powered Searchlights to Illuminate and Mark the Outlines of an Airplane Landing Field at Night, When This Simple Scheme Comprising the Use of But One Searchlight and a Set of Reflectors or Mirrors to Reflect the Beam Around the Corners Solves the Problem Equally as Well? A Very Ingenious Scheme Indeed, We Believe, and One That Possesses Complete Flexibility. Allowing the Shape and Size of the Field To Be Changed as Frequently as Becomes Necessary. The Shape of the Field, Owing to Rainy Weather, Etc., and Due to Submerged Portions, May Have To Be Changed Several Times in Twenty-four Hours, and This Scheme Provides the Way to Do It with the Minimum of Labor and Expense.

in the development of commercial enterprises.

The searchlight, as a medium for outlining safe landings for airplanes at night, is a particularly worthy and useful application which deserves the consideration, not alone of governmental officials, but should be of interest to private individuals engaged in the transportation of perishable goods and all classes of parcels requiring speedy forwarding to their proper destination.

Airplane service for the carrying of mail, newspapers and many other articles, has already been established in this country in a limited way, the flights being so timed as to take advantage of daylight as far as possible. Until properly equipped landing fields are constructed and maintained throughout the

field is the searchlight, the beam of which encloses all but the half of one side of the field and by the use of reflectors or mirrors divides it into two sections—one for Eastbound and the other for Westbound traffic. It further shows the aviator his course, it being the intention to have all such fields placed so as to have the final reflected beam projecting to the East. Should it be desired to enlarge the field from time to time, the reflectors can be easily moved to new locations and then secured in position by guy ropes or cables.

In the east and west sections, guide lights are placed in pits covered with heavy glass windows, flush with the ground. These lights are designed to make it safe for the aviator to enter the grounds. In the event

with which each station is usually supplied.

For ordinary use, the signal light on the top of the tower will give forth a white beam; however, should some difficulty occur which would make it dangerous to permit a landing, the approaching aviator would be warned far in advance before his reaching the station, by a red beam.

All types of aircraft, especially those cruising in the higher altitudes, would be greatly assisted in their navigation by these light-bounded stations; their pattern being identical with the other stations, would at once make known to the flying pilot his position—the tower signal giving the number of the station which appears on the air-chart and the “east-beam” the direction of the aircraft’s course.