

### Source of Reports

The majority of reports of aerial phenomena have come from civilians. About 8 percent come from civil airlines pilots, while approximately 25 percent are reported by military personnel. Reports have been received also from highly qualified scientists. Although primary significance is attached to reports from qualified observers, there is no intention to discredit untrained observers.

### Radar Sightings

The Air Force has received many reports of unusual images on radar scopes. It is fairly well established that some of these images are ground objects reflected from a layer of warm air above the earth (a temperature inversion).

Temperature inversion reflections can give a return on a radar scope that is as sharp as that received from an aircraft. Speed ranges of these returns are reportedly from zero to fantastic speeds. The "objects" also appear to move in all directions.

Such radar sightings have resulted in hundreds of fruitless intercept efforts.

One scientific theory holds that light can be similarly reflected from a layer of warm air above the earth and, if proven to be correct, this could account for some visual sightings.

Bearing out the theory of temperature inversion reflection is an incident which occurred in January 1951 near Oakridge, Tennessee. Two Air Force aircraft attempted to intercept an unidentified "object" and actually established a radar "lock" on the object. Their altitude at the time was 7,000 feet. The unidentified object, according to their radar, appeared to be at an elevation of ten to 25 degrees. Three passes were made in an attempt to close on the object. In each instance the pilots reported that their radar led them first upward and then down toward a specific point on the ground.

Ionized clouds are believed to be the cause of some unidentified radar returns. Thunderstorm activity is identifiable by radar, and radar is used for the purpose of avoiding thunderstorms. In addition, radar has picked up many objects first reported as "unidentified phenomena" which were later identified as aircraft, birds, balloons, ice formations in the air, or other known aerial objects or manifestations.

### Policy Regarding Attempted Interception

No orders have been issued by the Air Defense Command to its fighter units to fire on unidentified aerial phenomena. The Air Defense Command is charged with air defense of the United States, and its mission is to attack anything airborne which is known or appears to be hostile. This should not be interpreted to mean that our pilots will fire haphazardly on anything that flies.