

During 1953, by mid-year, only 250 reports had been received, of which nearly 50 percent came from military sources. The number of unexplainable sightings dropped to 10 percent.

The drop in unexplained sightings is largely due to the increased accuracy and the completeness of reports being received. To be of value, a report should include such basic data as size, shape, composition, speed, altitude, direction, and the maneuver pattern of the objects. Without such information, it is almost impossible to establish the identity of the object sighted. In addition, a recent study has shown a direct correlation between the number of sightings reported and the publicity given to "saucers" by the nation's press.

In order to overcome this lack of basic data, and to standardize all reports, a detailed questionnaire was prepared by the Air Technical Intelligence Center and is now submitted to each person reporting an unidentified aerial object. It is felt that the information thus obtained will lower still more the number of unexplained sightings.

The majority of all reported sightings have been found to involve either man-made objects such as aircraft or balloons, or known phenomena such as meteors and planets.

Present-day jet aircraft, flying at great speeds and high altitudes, are often mistaken for unknown objects by the untrained observer. Sunlight reflections from the polished surfaces of aircraft can be seen plainly even when the aircraft itself is too distant to be visible.

Weather balloons also account for a substantial number of sightings. These balloons, sent to altitudes of 40,000 feet and higher, are launched from virtually every airfield in the country. They are made of rubber or polyethylene, swell as they gain altitude, have very good reflective qualities, carry small lights when launched after dark, and can be seen at very high altitudes.

In addition to the ordinary weather balloon, huge 90-foot balloons, which sometimes drift from coast to coast, are used for upper air research. These balloons also have a highly reflective surface and are visible at extreme altitudes.

Frequently, unusually bright meteors and planets will cause a flurry of reports, sometimes from relatively experienced observers. At certain times of the year, Venus, for instance, is low on the horizon and will appear to change color and move erratically due to hazy atmospheric conditions.

Approximately 12 percent of all sightings reported are from military and civilian radar facilities. It is fairly well established that some of these images are ground objects reflected from a layer of warm air above the earth (temperature inversion).

Temperature inversion reflections can give a return on a radar scope that is as sharp as that received from an aircraft. Speeds of these returns reportedly range from zero to fantastic rates. The "objects" also appear to move in all directions. Such sightings have resulted in many fruitless intercept efforts.

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 10 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. (One scientific theory holds that light can be similarly reflected from a layer of warm air above the earth. If this proves to be correct, many visual night sightings could be accounted for.)

There are a small number of unexplained reports which involve a combination of seeing the object and detecting it on radar simultaneously. In each case the object appeared at night time, and had the appearance of simple lights.

Ionized clouds have probably caused some unidentified radar returns. Thunderstorms are identifiable by radar, and radar is used aboard some aircraft and ships to avoid them. Radar returns have also been received from birds, ice formations in the air, balloons, ground reflections, frequency interference between other radar stations, and windborne objects. Obviously such returns are very difficult to identify, especially when they occur during darkness.

As stated earlier, the difficulty of evaluating reports of all types is based largely upon the lack of basic data surrounding the sighting. It is felt that the detailed questionnaire will remedy the situation in part.

In addition, special photographic equipment has been developed for distribution to selected air base control towers and Air Defense Command radar sites. This equipment consists of a diffraction grating camera which separates light into its component parts (spectrum) and registers them on film. The principle involved is that used by astronomers in determining the composition of the stars. In this manner Air Force scientists may be able to determine the source of unidentified lights. As yet, no photographs from this camera have been received.

There have been some misconceptions concerning the Air Force handling of "flying saucer" reports. One of these misconceptions is that the Air Force is either withholding "flying saucer" information from the public or cloaking it beneath a security classification. This is untrue.