

PROJECT SECOND STOREY

Part II - Descriptions of Normal Phenomena which might cause reports of unidentified aerial objects.

Balloons

Coiling Balloons and unlighted Pilot Balloons are used in daytime. These balloons are about two feet in diameter. Red or White colours are employed.

At night, pilot balloons carry either a paper lantern lighted by a candle or a small battery-powered electric light. These are not likely to be visible to any great height by the naked eye, but a balloon with a slow leak might carry a light across the sky for a considerable distance at a relatively low level.

Radiosonde balloons are about five or six feet in diameter, coloured white, and carry a small box at the end of a cord about twenty feet below the balloon. Sometimes a radar reflector is also tied to the balloon; this is a reflector of many faces and it is possible that some unusual reflections of light may occur from this attachment. Radiosonde balloons normally ascend to about 60,000 feet.

Skyhook Balloons are used occasionally for special high-altitude observations which takes them up to 100,000 feet. These balloons are about 75 feet in diameter and an instrument box tied beneath. Because of their size, there is a good possibility that such balloons are the basis of some reports of unusual aerial objects.

In the daytime with blue skies, good visibility and bright sunshine, balloons may be seen at considerable heights once they are located by the eye. The balloons stand out against the blue of the sky as sharp points of light.

Aircraft

Aircraft seen in this country should conform to the well known silhouettes but, in view of developments in neighbouring countries, triangular (delta wing) and tailless types, possibly flying at great heights, may be seen. Also due to distances and aircraft attitudes in flight, the true plan forms may not be observed. A change in shape during the observation may well indicate the existence of these circumstances.

Effects of Screens, Glass, Etc.

Common objects when viewed through screens may be distorted out of all recognizable shapes; often single objects may appear as several. As commercial sheet glass (window panes) may contain defects causing similar optical phenomena, observers should be wary of such conditions.

Nacreous or Mother of Pearl Clouds

These rare clouds are most likely to be seen just before sunrise or just after sunset when illuminated by sunshine from below the horizon. They may also appear in daytime. The clouds occur at heights of 15 to 20 miles and have iridescent colours which resemble the colours seen in mother of pearl. It is possible that a small detached mother of pearl cloud might give the appearance of a hovering object high in the sky.

Noctilucent Clouds

Noctilucent or night-luminous clouds are seen only at night made visible by reflected light from the sun when the sun is about 10° to 18° below the horizon and visibility conditions are very good. They usually appear about an hour after sunset, low on the horizon. Their colour may be white or they may be a shade of colour such as bluish-white, golden, or reddish-orange, but they do not display the brilliant iridescent colours that are characteristics of mother of pearl clouds. Noctilucent clouds occur about 50 miles high in the atmosphere, as determined by simultaneous photography from different points on the earth's surface. Their speeds have been calculated to be as high as 400 miles per hour, but because of their great height they appear to move slowly.