

[REDACTED]

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Incident #130, a, b -- Neubiberg AF Base, Germany -- 11 October 1948

The position of this object in the sky (northeast at an altitude of 70°) rules out any possible astronomical explanation. The moon had not yet risen at the time.

The description appears to fit that of a high-altitude balloon.

Question: If there had been "no release of airborne weather equipment prior to or during sighting," where did the information concerning winds aloft come from?

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[REDACTED]

[REDACTED]

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Incident #191 -- near Junction City, Kansas -- 24 October 1948

There is no astronomical explanation for this incident. The description given is sketchy and would be entitled to no weight whatever if it had not been reported by a responsible USAF officer. With size, shape, time in sight, tactics, and sound not stated, it is impossible to say anything further than that this seems to be a typical example of the "garden variety" of flying saucer.

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[REDACTED]

[REDACTED]

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Incident #192 -- near Moorhead, Minnesota -- 24 October 1948

Despite the observer's statement that the object seen could not have been a meteor, the possibility is not ruled out. Early evening is the most propitious time for the observation of slow, bright meteors. This is the time of day when a meteor inbound to the sun and caught by the earth's gravitational field would appear to travel from east to west, and could appear to rise slightly. Most people identify meteors with sharp, fast flashes of light, which are not at all characteristic of slow fireballs. The observed turn is difficult but not impossible to explain; this investigator would prefer, however, to think that it was an illusion caused by perspective.

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Incident #193 -- near Neusiborg, Germany -- 24 October 1943

It is very unlikely that this incident has any astronomical explanation. No trail nor luminescence was observed, and the object flew a straight and level course. Time in sight (two minutes) also effectively rules out any possible astronomical hypothesis.

Could the object reported here have been a conventional aircraft viewed in foreshortened aspect?

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Incident #194 -- near Andrews Field -- 3 November 1948

No astronomical explanation is possible for this incident.

The object reported has been independently identified as an MIT cosmic ray balloon cluster.

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Incident #194 -- near Andrews Field -- 3 November 1948

No astronomical explanation is possible for this incident.

The object reported has been independently identified as an MIT cosmic ray balloon cluster.

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[REDACTED]

[REDACTED]

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Incident #185 -- Goose Bay, Labrador -- 31 October 1948

The object reported in this incident has no astronomical explanation: speed was too slow and time in sight too long.

The object, observed on a radarscope, was probably a balloon or unidentified aircraft.

Question: Is the speed indicated the radial velocity of the object or true space velocity? If the latter, it is obviously too slow for conventional aircraft.

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[REDACTED]

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Incident #190 -- Goose Bay, Labrador -- 1 November 1943

There is no astronomical explanation for this incident.
The object could have been balloon radiosonde.

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[REDACTED]

[REDACTED]

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Incident #137 -- Richmond, Indiana -- 5 November 1948

This incident very likely has an astronomical explanation; the object sighted was probably Venus. Venus rose on November 5 at about 3:30 A. M. and an hour later would have been a little south of east at an altitude of about 15°. Its magnitude was -3.4, or about six times brighter than the brightest star in the sky. The photograph taken of the object sighted does not contradict this hypothesis.

It is unlikely that the object observed was the bright comet (1948L) discovered one day earlier in the southern hemisphere, for this comet at that time was very far to the south and east, almost on the horizon, and was very much fainter than Venus. If the object seen here had been the comet, the persons observing it could lay claim to the first discovery. It was discovered one day later in Australia because of much more favorable location.

Venus, of course was visible all during the autumn of 1948 in approximately the same position as that in which it was seen on the morning of November 5.

It is also of interest to note that Mercury had its greatest western elongation on November 5, but it rose just at the beginning of the morning twilight and would therefore have been just rising at the time of this incident. Furthermore, Mercury was much less brilliant than Venus.

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Incident #198 -- Sakkanai, Japan -- 3 November 1948

This incident has no astronomical explanation.

The object has been independently identified from radar information as a Soviet aircraft.

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[REDACTED]

[REDACTED]

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Incident #199 -- near Grays Harbor, Washington -- 30 October 1948

From the meager information given by Lieutenant Hunzian, presumably a responsible and well-trained observer, positive identification of the object is impossible, but it appears likely that it was a bursting fireball.

The bits of evidence that tend toward this interpretation are the following: one object bursting into ten or twenty pieces, color white and yellow, and the short time in sight. Manner of disappearance, simply fading from view "like fumes from an airplane," is also similar to that of a disintegrating fireball; in bright daylight the otherwise bright, flare-like quality is sometimes not observed.

Against this interpretation are the following: no lights or outstanding reflection, and no trail. The former might be the result of bright daylight; obviously the objects were observed, and if they were yellow and white, they must have had some luminosity. Lack of trail is, however, unusual.

Unfortunately, without more detailed information, little more can be said.

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[REDACTED]

[REDACTED]

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Incident #200, a, b, c -- Crescent City, California -- 17 October 1943

This incident has no astronomical explanation.

Although the four observers had no technical training, their reports are remarkably consistent. The object was in sight several minutes, too long to be a meteor; it made a banking turn of 45° and appeared to reflect sunlight very strongly. The speed was great but not excessive.

The object seen could have been an advertising blimp, a balloon, or an aircraft. The banking turn appears to rule out the balloon, unless this was a subjective impression caused by the turning of the balloon in the wind.

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Incident #201, a, b -- Army Air Base, Azores -- 31 October 1943

There appears to be no astronomical explanation for this incident.

The observers agree in the general description, but not in the speed of the object: speeds are given from 30 to 300 MPH.

The most likely explanation on the basis of the meager information offered is that the object was a balloon carrying a swinging light.

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Incident #202 -- Newark AF Base, New Jersey -- 3 November 1948

In everything but the luminosity, the object reported here answers to the description of a slow-moving fireball. Since it was in sight "one second or less," the first quarter moon and, presumably, the lights of the city and the airport, providing background and foreground illumination, may have tended to diminish the brilliance of the object. The time of day was most propitious for a slow-moving meteor. Unless a more likely explanation is forthcoming, this incident can be tentatively ascribed to the flight of a fireball.

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[REDACTED]

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Incident #203 -- Alberta Province, Canada -- 17 November 1948

The object reported in this incident was certainly a fireball. The description fits very closely.

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[REDACTED]

[REDACTED]

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Incident #204 -- Panama -- 3 November 1948

It seems entirely probable that the object sighted in this incident was the comet 1948L, which had been discovered two days earlier in Australia. The comet was suitably placed for observation near the equator and in the southern hemisphere. The time of observation also checks closely with the time of visibility. There is no single statement in the limited report that contradicts the comet hypothesis. If the observer had given the actual bearings of the object, these would have clinched the matter.

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Incident 205 -- Carthage, Missouri -- 31 October (?) 1943

The vague nature of the information reported in this incident and the inferred unreliability of the observer makes it difficult to take the incident seriously, especially since the observer has obviously jumped to conclusions on the basis of insufficient evidence.

However, if credence is given to the observations, either they must be placed with the group of "aluminum-colored objects," or, if liberal allowance is made for subjective impressions, one could stretch a point to say that a slow-moving fireball was seen. This hypothesis is far fetched, but the speed of the object and the time of day favor it. The fact that the observer stated that the object was aluminum colored actually means little, since he immediately identified it as a flying saucer, which he knew from newspaper reports to be such a color.

It is very difficult to deal with reports of untrained and unreliable observers, because they invariably see in an incident what they wish to be there.

From a purely physical basis, this investigator would prefer the meteoric hypothesis, even though the evidence is entirely insufficient to establish it.

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[REDACTED]

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Incident #209 -- Clark AF Base, Philippine Islands -- 12 November 1948

Two things enter heavily into any possible interpretation of this incident: the reported maneuverability of the object, and the character evaluation of the witness.

If the facts are as stated, then there is no astronomical explanation for the object observed. A few points favor its having been a daylight meteor: the snow-white color, speed faster than that of a jet plane, roaring noise, similarity to "sky writing," and the time or day of the observation. The tactics, however, if really performed, oppose it strenuously.

The question is, did this object actually maneuver in and out of a cloud bank -- i.e., did it make turns of 130° or more? It is possible that such impressions were merely illusions. The witness saw the object intermittently through clouds. It is not clear whether he ever saw it against a cloud background or only in the sky background between clouds, a fact which is highly important. If he saw it only in breaks between clouds, this fact, coupled with its great speed, makes it clear that only momentary impressions could be obtained. Such observations, by an untrained observer, may bring forth a description that is extremely unlike the facts.

The impression of a fuselage with windows could even more easily have been a figment of the imagination.

Unless more specific information concerning this incident becomes available, the present investigator cannot say whether an astronomical explanation is possible, or not.

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incident #207, a, b, c -- Andrews AF Base, Camp Springs, Maryland--
18 November 1943

There is no astronomical explanation for the object observed in this incident.

The similarity of the incident to #172 is striking, and it suggests a common origin for the objects. The two incidents were separated by a month and a half and by half a continent. The hours of observation were about the same. It may be significant that ground observers in each incident did not report the evasive tactics described by air observers, and it is tempting to hazard the guess that such tactics were largely the result of relative motion. It should be investigated whether a lighted balloon caught in the prop wash could give the appearance of a rapidly-maneuvering aircraft. In fact, this investigator believes that it would be an interesting experiment to have a typical lighted balloon engaged by aircraft at night, with a competent observer along to record apparent relative tactics of the balloon.

(It is not clear whether the two observers in this incident who reported evasive tactics were in the same plane, or not, but it is presumed that they were.)

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[REDACTED]

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Incident #208 -- Clark Air Base, Philippine Islands -- 17 November 1948

The limited information in the description of this incident can be explained as referring to the trail and explosion smoke left by a fireball. The white exhaust trail extending some one to ten miles, the "flak-like" terminal burst, the estimated altitude, and the color and time in sight all concur in ascribing this sighting to a fireball. The time of day of the observation is also in agreement.

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[REDACTED]

[REDACTED]

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Incident #209 -- South Korea -- 4 November 1948

There is no astronomical explanation for this incident.
The object has been independently identified as a Soviet
aircraft.

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[REDACTED]

[REDACTED]

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Incident #219 -- Boston, Massachusetts -- 10 November 1949

There is no astronomical explanation for this incident.

The objects seen were apparently conventional aircraft.

It is rather surprising that, in the dim light, the observer could identify them as single-engine planes, and yet could hear no sound from them.

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[REDACTED]

[REDACTED]

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Incident #211 -- Bellefontaine, Ohio -- 4 December 1948

There is no astronomical explanation for this incident, in view of identification of recovered materials as man-made. Apparently there has been independent identification of the object as a pistol flare fired from the ground.

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[REDACTED]

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Incident #213 -- Dayton, Ohio -- 3 December 1941

Little can be determined from the scanty evidence concerning this incident. Two half-second pieces of film are apparently all that was seen. It is unlikely that any astronomical origin can be found for the object or objects observed, and certainly on the basis of so little information not even a guess can be hazarded.

See report on incident #213, which apparently refers to the same phenomenon.

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Incident #113 -- Dayton, Ohio -- 5 December 1948

This incident may represent the same phenomenon indicated in #111. The description here is more detailed.

The object could not have been a meteor, since observers state that it was in view several minutes and that it was rapidly ascending, and disappeared overhead.

The moon was at crescent phase, and this investigator has often seen it at this phase appearing through small breaks in overcast, at which time it gave the appearance of a bright light flashing on and off. At the time of this incident, however, the moon was in the southwest, whereas the observers state that their object was in the northwest. The altitude given does agree approximately with that of the moon.

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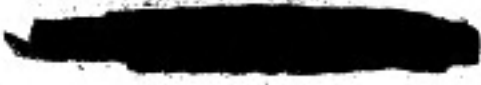
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Incident 1114 -- West Lindo, New Hampshire -- 7 July 1945

Inasmuch as the metallic particles concerned in this incident have been independently identified at MIT as parts of a cast-iron cylinder, an astronomical explanation of the incident is precluded. However, as a matter of general interest, it should be noted that iron meteorites could have produced the same effect. It is assumed, of course, that the MIT examination excluded the possibility of these particular particles being meteoritic.

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Incident 2510 -- Fairchild, California -- 3 December 1966

If the observations were made, as stated, by the observer, this "ball of light" would not have been a fireball. However, astronomers receive such information about fireballs that they are prepared for almost any size of object.

Even trained observers are easily fooled by the illusion of closeness; cases are on record of fireballs which were reported to have fallen in ~~open~~ fields, but actually came to earth some 200 miles away.

A fireball would not ~~be~~ view at 1000' and rise to 20,000'. If this observation is correct, the astronomical interpretation for the incident can be explained. Under unusual conditions a fireball might, however, appear to rise somewhat, as a result of perspective as it slants into the observer's atmosphere.

Absence of trail and ~~some~~ definitely does not favor the meteoric hypothesis, but, as in other cases, does not rule it out with finality.

It does not seem likely that any known meteorological or auroral phenomenon would have been as bright as this object was reported to be.

In the almost hopeless ~~absence~~ of any other natural explanation, one must consider the possibility of the object's having been a meteor, even though the ~~description~~ does not fit very well.

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[REDACTED]

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Incident 1017 -- Chicago, Ill. -- 1 December 1966

A fairly bright, slow-moving bolide offered a good explanation for the object reported in it is inside the apparent rise can be explained as an effect of perspective. There is nothing in the description given that is contradictory to the bolide hypothesis.

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[REDACTED]

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Incident #217 -- near [REDACTED] Pa., Pennsylvania -- 1 September 1947
There is no astronomical explanation for this incident.
The object seen could easily have been a balloon, for
apparent speed could have been a result of the observers' own motion.
Even if an object were standing still, observers in an airplane would
not see it for much longer than the time reported here (7 minutes).

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[REDACTED]

[REDACTED]

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Incident #213 -- near Martinsburg, West Virginia -- 11 December 1948

As described, the object seen in this incident could have been a parachute flare. Under circumstances of a head-on approach, a meteor can appear stationary; however, the time in sight (one minute), if accurate, argues against the object's being a meteor. Therefore, while it is possible that the incident has an astronomical explanation, it is more probable that a flare was seen, observed.

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[REDACTED]

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Incident #215 -- New York, New York -- 10 November 1954

The object reported in this incident is clearly a slow-moving fireball. Time of day, length of time in sight, and all other data check with the ballistic hypothesis.

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[REDACTED]

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Incident #512 -- San Francisco, California -- 13 December 1941.

There is good reason to believe that the object observed in this incident was a bolide. The fact that the observer, although a science teacher, confused the term comet with meteor is strong evidence that he is unacquainted with these phenomena: a comet appears stationary in the sky over a relatively long period of time. While the evidence is insufficient to establish with any certainty that the object was a bolide, it appears to this investigator, and the case, to be the most probable explanation.

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[REDACTED]

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Incident #281 -- Midland, Michigan -- 3 July 1967

From the chemical analysis (as reported in this incident) of the material turned in to the laboratory, it is evident that there is no astronomical explanation for the object. Meteorites do not include in their contents silver pellets or magnesium hydroxide.

This incident was evidently a prank or a private experiment. (Observer may or may not have been the instigator.) Since the event occurred on July 3, it is possible that chemicals left over from a Fourth of July celebration were used; the chemical content might imply this.

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[REDACTED]

[REDACTED]

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Incident #322 -- Furstenfeldbrunn, Germany -- 20 November 1943

The tactics described by this subject, if correct, and the implied time in sight (long enough to call others to see it), argue strongly against an astronomical interpretation for the incident.

The object might have been a balloon with a light on it.

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[REDACTED]

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Incident #218, a-c -- New Mexico -- 5 December 1943

Since several separate sightings are encompassed by incident #223 to 226, it must be regarded as a complex incident, occurring during one night but referring to several distinct phenomena. The reports in #223 appear in turn to be a part of a larger series of incidents, all concerned with the "green meteors" or "green flashes" which have appeared in and near New Mexico, and the present statement applies to some or red to all of them.

In his letter of December 29, 1943, to Lieutenant Colonel Ross of the OSI, my colleague Dr. Lincoln LaFaz has summarized thoroughly the nature of these incidents and, particularly, has noted the reasons why the objects concerned cannot be dismissed as ordinary meteoric phenomena. Dr. LaFaz is an extremely able man in the field of meteoritics and an enthusiastic, almost to the point of extravagance, investigator and worker. On the basis of the description at hand, I concur in his conclusions. Dr. LaFaz, who is "on location" and has observed at least one of these objects at first-hand, should be fully supported in a continued investigation. Apart from the unusual appearance of the objects, the pattern of incidents is particularly striking. It would be exceedingly unlikely that so many meteors would appear in that small sector of the Southwest and nowhere else; if they did, they would not have consistently horizontal paths and

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Incident #213, a-c -- page 2

lead in a consistent direction. These points alone are sufficient to dismiss the meteoric hypothesis. It is entirely possible that, among the many incidents reported, one or two of the objects may have been fireballs, thus serving to confuse the issue, but a blanket explanation of that sort is improbable.

I would suggest that Dr. Jack Graham, Director of the New Mexico School of Mines, be contacted. He is conducting highly classified experiments in very high velocity projectiles and may be in a position to offer a worthwhile opinion. High velocity experiments, probably in connection with preliminary trials in the production of artificial meteors or artificial satellites, may prove to be the explanation of these incidents. Such experiments would not be conducted at any of the recognized air bases so far contacted.

Note: It has come to my attention since the writing of the above that Dr. Lutz, in the March issue of Astular Astronomy (Vol. 1, 3, p. 133) refers to "the spectacular meteoric display of 1945 December 5" in northeastern New Mexico. It would seem an unusual coincidence that the sightings reported in this incident occurred on the same evening and yet were entirely apart from it. The apparent contradiction is puzzling.

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Incident 1291 -- near Las Vegas, New Mexico -- 6 September 1949

See report on incident 1286 for detailed statement.

The present incident, if it were an isolated case, would be suggestive of a fireball, but, in view of significant differences and the general pattern of other related incidents, such explanation is improbable.

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[REDACTED]

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Incident #228 -- near Vaughn, New Mexico -- latter part of 1947
3 or 4 November 1947
26 November 1947

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It is difficult to ascertain whether the objects described in this incident belong to the general group of "New Mexico night flashes," or not. The description here is sufficiently different from the majority to indicate that they do not: the characteristic green color is not mentioned.

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It is improbable, however, that the three separate sightings, all occurring at approximately 2200 hours and in the same locality, can be explained as astronomical phenomena. Furthermore, the stated altitude and distance are entirely out of keeping; this fact might be dismissed as an illusion, common in the observation of fireballs, if the instance were isolated. The weight of the evidence, however, inclines to the conclusion that the objects were man-made devices and part of some scientific experiments, so common in that section of the country.

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[REDACTED]

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Incident #221 -- Sandia base, New Mexico -- 6 December 1961

See report on incident #223 for detailed statement.

Again, it is more probable that the object seen is related to the "New Mexico green flashes" than that it was a fireball.

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[REDACTED]

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incident #227 -- near Hermal, New Mexico -- 12 December 1945

There is nothing that the present investigator can add to the detailed analysis given by the observer of this incident, Dr. Lincoln Laraz.

See report on incident #223 for discussion.

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Incident #100, 021a

No information (other than the name of observer) concerning this incident has been received by the present investigator.

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Incident #229 -- Beach Bay, Florida -- 13 Dec 1947
#229a -- Riviera Beach, Florida -- 14 Dec 1947

There seem to be two separate occurrences referred to in this incident, and the information given for each is entirely insufficient for adequate analysis.

In #229, the location of the object in the sky is not given, nor is the hour of observation. The moon and Jupiter were visible in the early evening, the moon quite high, and Jupiter setting in the west. One might hazard a guess that Jupiter seen through a variable mist or haze, this cloud coverage appeared to blaze up and die out. The larger planets often become momentarily spectacular when they are very near the horizon and the weather conditions are right.

#229a occurred at dusk, with the observers looking out over the ocean. The nearly-full moon was fairly high in the southeastern sky at that time; there might possibly be some connection between it and the object observed, if weather conditions were unusual.

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Incident #250 -- near Laramie, Wyoming -- 4-1-1954

If it were not for the intense green color of this object, it would answer the description of a fireball. In view, however, of many similar occurrences in the New Mexico area, this interpretation is open to question. It should be noted that this incident occurred very much farther north than did the majority of the "green flashes," but that the observer was facing south. Nevertheless, considering the geographical difference, and the difference in season and in time of night of the observation, this object could very well have been a fireball. Insufficient evidence is offered to decide whether it belongs among the New Mexico objects or among the fireballs.

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Incident #261 -- Dallas, Texas -- 1 January 1943

This incident has no astronomical or location.

The fan-shaped glow that extended vertically from the horizon to the zenith suggests a man-made disturbance -- electrical or explosive. The green color is the only characteristic that might connect this incident with the "low latitude green flashes"; the rest of the description does not.

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