The objects observed here were almost certainly not astronomical, although their speed, shape, and manner of disappearance might tend to the fireball hypothesis. The lack of trail and the "tactics" pursued by the second object make the likelihood of that interpretation very slight; however, the possibility cannot be entirely ruled out if considerable allowance is made for looseness in reporting.
Incident 563 -- near Lake Meade, Nevada -- 28 June 1947

There appears to be nothing astronomical about this incident.

According to the observer, the objects had a speed of 288
nmi and were moving on a course of 120°. Now, since the plane was
moving at 288 nmi on a course of 300°, it is possible that the ob-
erved motion of the objects was only apparent (since 180° plus 120°
equal 300°), and we can conjecture that a cluster of balloons (cosmic
ray apparatus perhaps) was observed, the motion of which was merely
a reflection of the motion of the plane.

The object observed here was obviously not astronomical.

From the information given, it appears that this was definitely an aircraft.
Incident No. -- Marson Field, Newfoundland -- 23 July 1947

If proper allowance is made for the reporting of untrained observers, it is possible that the objects observed in this incident were a minor meteor shower. The "reddish flashes of light" and "abrupt darts" would tend to this interpretation. The hypothesis hinges, however, on the statement that "a number of intermittent flashes were observed for three minutes." If this means independent flashes, it lends support to the meteoric interpretation. If it means that the same objects flashed intermittently for three minutes, that theory is ruled out. It seems more probable in view of the statement about "abrupt darts of light" that the former meaning is correct.

There is somewhat more evidence in this incident than in No. 57 (which is similar, and occurred just three days earlier) favoring meteors, but probably the events of these two incidents are related, and it is very unlikely that meteors could explain both of them.

According to the report of the U. S. Weather Bureau on ball lightning, it would appear that this phenomenon sometimes takes the form of luminous darts and can be red. Perhaps this could offer an alternate explanation for the incident.
Incident #56 — Birmingham, Alabama — 6 July 1947

This incident has no obvious astronomical explanation. The photograph purported to be a part of the report of the incident is not documented. There is no proof in the evidence at hand that it shows the objects described. From the word description alone, which is quite limited, the objects could be explained simply as rockets: "vertical ascent," "travelled in arc." Data is too meager for a definite conclusion, however.

If the photograph is authentic, it would be extremely valuable to know the shutter speed at which it was taken, since from this the angular velocity could be determined.
Incident #67 -- between Nova Scotia and Newfoundland -- 20 July 1947

This incident and #65, which occurred in the same vicinity, just three days apart, do not fit into the usual description pattern. In both cases, information given is meager, and in both cases the meteoric hypothesis cannot be completely ruled out, but the objects could have been rockets or even freak auroral streamers or brush discharge from ionized dust clouds. In any event, it seems unlikely, although it is not impossible, that the objects seen in this incident were meteors. The even spacing of the flashes argues strongly against the meteoric hypothesis.
Incident #38 — NW of Bethel, Alaska — 4 August 1947

There is no astronomical explanation for this incident. The time in sight (four minutes) and rate of speed (520 MPH) seem to preclude any such possibilities.

The similarity of this incident to #10, in which several objects were seen silhouetted against a sunset, is striking.
Incident No. 89 — beyond Necker Island — 12 September 1947

From the evidence at hand, it appears quite likely that the object observed was a fireball. Fireballs have been known to change course abruptly when splitting. The reported change to reddish hue from the previous color of incandescent light, the length of time in sight, and the manner of disappearance all lend support to this hypothesis. At sunset one can expect relatively slow-moving, nearly horizontal fireballs.
Incident No. a, b -- Cardroy, Newfoundland -- 10 July 1947

The descriptions given by the three observers of this object answer quite closely to that of a typical bright, "slow-moving" bolide. It is extremely likely that the object sighted here was nothing more than a fireball.
Incident 561, 61a–Logan, Utah -- 3 September 1947

This incident, and incident 562, which clearly refer to the same objects (witnesses were together at the time of observation) do not have an astronomical explanation.

Since it was dark, any judgment of distance can be greatly misleading, and extremely fast motion might be ascribed to closeness rather than to true linear distance.
Incident #62 — Logan, Utah — 3 September 1947

This incident does not have an astronomical explanation.

See report on incident #61.
Incident #63 -- NE of Helena, Montana -- 29 July 1947

With the exception of the color ("like polished nickel") and the lack of statement concerning a trail, the object reported in this incident might very well have been a daylight meteor. Bright meteors have been observed to move in wavy paths. The manner of disappearance ("melted into thin air") further supports this view. Time in sight and speed also check. In short, it is more likely that this object was a bright meteor than that it was anything else.
Incident #64 -- Twin Falls, Idaho -- 19 August 1947.

There is nothing astronomical in this incident.

The reported overcast sky could have made it possible for signal or search lights to be reflected from the cloud background.
Incident No. -- Rehoboth Beach, Delaware -- September 1946
October 1946
2 June 1947

This incident contains nothing astronomical.

It is entirely possible that the objects observed on these three separate dates were "Bumble Bee," ram-jet missiles, as fired from Fort Miles by the Applied Physics Laboratory of Johns Hopkins University. Since the hour of observation of the various sightings (and the exact day of the first two) is not given in material submitted to this investigator, positive identification cannot be made; but if these facts are known, inquiry at the above-mentioned laboratory (address: 9621 South Georgia Avenue, Silver Spring, Maryland) might bring forth definite identification.
Incident #68 -- Silver Spring, Ohio -- 7 August 1947

From all evidence, it appears that the object seen here was a bright meteor. Slow-moving meteors occur before midnight, and, while their paths are almost never "absolutely horizontal," it is quite possible that the observer could have gained this impression, since the object was in sight for only three or four seconds. Furthermore, an observer, surprised by an unusual occurrence, often tends to overestimate the actual duration of time; thus, "three or four seconds" might mean not much more than a second.

There is nothing at all in the evidence that cannot be explained under the assumption that the object was a meteor.
Incident #67 -- near Placerville, California -- 14 August 1947

If details of the observers' statement are accurate, it would be difficult to assign an astronomical origin to the object seen in this incident. There are a few statements which, taken alone, strongly suggest that a meteor was observed: high rate of speed, "seemed to be in a shallow dive," white smoke trail, "disappeared in a puff of dark grey smoke." However, unless the description of the object (4-5 feet long and 10-14 inches wide) and the estimated distance (less than 1000 feet) are illusory, the meteoric explanation will not hold.
Incident #3 — Portland, Oregon — 24 June 1947

There is no astronomical explanation for this incident, which should be considered together with the Aenneth Arnold case (717), which occurred on the same day, and in which similar discoid objects were observed. (The present objects appeared to have tails, however; another major difference between this and the Arnold incident is the inferred size of the objects, as determined from the estimated distance.)

It is difficult to take seriously the peculiar action of the compass, for this would imply fantastically large magnetic fields.
Incident 69, 69a -- Philadelphia, Pennsylvania -- 6 August 1947

The reports of this incident and those of 470 refer to the same object and are typical of descriptions of relatively slow moving meteors. The speed, trail, hissing sound (after passage -- although this could easily have been a subjective reaction) and color all check with the object's having been a fireball, bolide, or large meteor.
Incident #70, 70a -- Philadelphia, Pennsylvania -- 6 August 1947

The descriptions given of this object are typical of those of relatively slow moving meteors. See report on incident #69 for details.
Incident #71 -- Las Vegas, Nevada -- 8 or 9 October 1947
(Supersedes interim report of 2/12/49)

In everything except the course flown, the description given here answers to that of a fireball. The course indicated in this incident, however, appears almost fatal to such a hypothesis. No fireball on record, to this investigator's knowledge, has been known to turn back on itself. Daytime fireballs have been observed, however, that were invisible save for a marked white cloudlike trail.

Most fireballs pursue essentially straight courses, and, in fact, apparent deviations are often caused by illusions of perspective and of a spherical sky. Real deviations are caused by effects of the meteor's encounter with the atmosphere. To execute a curved trajectory would require highly extraordinary circumstances indeed, and a meteoric explanation for this incident must be regarded as most improbable.

It is more likely that some sort of aircraft was under observation.
Incident 172 -- Alaska -- 1947 (exact date not known)

From the scanty information available, it appears improbable that this object was astronomical, unless the report represents a highly garbled and subjective account of a daylight meteor. (The time of the sighting is not given, but it is assumed from the description of the incident that it occurred during daylight hours.)

It should be noted as a matter of general record that some of the reports received at observatories of recognized fireball falls are so highly colored and garbled that if the astronomer did not have independent evidence of the identity of the object, it would be impossible to determine from these reports.
Incident /73 -- Boston, Massachusetts -- 4 August 1947

There is nothing in the evidence given here to suggest that the object sighted was astronomical.

The description suggests rather that the object may have been a highly distorted reflection image of the sun on a balloon or aircraft. The "deep gold" color ascribed to the object tends to indicate this interpretation.
incident #74 -- cancelled -- see #68
Incident 375 — near Twin Falls, Idaho — 13 August 1947

There is clearly nothing astronomical in this incident. Apparently it must be classed with the other bona fide disc sightings.

Two points stand out, however: the "sky blue" color, and the fact that the trees "spun around on top as if they were in a vacuum." Could this, then, have been a rapidly travelling atmospheric eddy?
Incident 576 -- Salmon Dam, Idaho -- 13 August 1947

There does not appear to be anything astronomical about this incident.

Although sighted on the same day as the sky-blue canyon saucer (incident 275), the objects described here seem to have little or no similarity to the former.
Incident #77 — South Brockville, Maine — 3 July 1947

There is nothing to suggest an astronomical origin of the objects sighted in this unusually well-reported incident. As much as the sightings were made by an "astronomer" (although this investigator has never heard of him), one can presume that any astronomical implications would have been noted. The observer's question "Have any meteorites been reported?" is puzzling, because he should have been able to rule out that possibility himself. The estimated speed is all that would suggest meteors, and the absence of smoke trails and the general tenor of the description seems to rule out the objects' having been daylight meteors.
Incident #78 — Grand Canyon, Arizona — 30 June 1947

While it seems more probable that the objects sighted in this incident were freely-falling, man-made instruments, perhaps from bursting instrument balloons, the possibility of their being freely-falling meteorites is not completely ruled out. When the mass of an incoming meteorite is of the proper order of magnitude, the meteor can come in on a non-vertical path, become a bright bolide, or fireball, and have its horizontal speed component reduced essentially to zero. It then falls to earth as a non-luminous, freely-falling body.
There is no astronomical explanation for this incident, which, however, deserves considerable attention, because of the experience of the observers and the fact that the observation was made through a telescopic and that comparison could be made with a pilot balloon. The observers had, therefore, a good estimate of altitude, of relative size, and of speed — much more reliable than those given in most reports.

This investigator would like to recommend that these and other pilot observers be quizzed as to other possible, unreported sightings.
Incident #30 -- Arlington, Virginia -- 7 July 1947

There is nothing in the description of this incident that contradicts an explanation of the object as a slow-moving, bright meteor. Slow-moving meteors are generally observed before midnight.
Incident #31 -- Hickam Field -- 7 July 1947

Clearly there is nothing astronomical in this incident.

It would appear that the object sighted was an instrument-carrying balloon.
Incident #2 — Oklahoma City, Oklahoma — between 17-21 May 1947

At first glance it does not appear that this incident has an astronomical explanation, but there are several portions of the description that can fit into such a picture, particularly if allowance is made for subjective reporting. The speed and manner of flight tally with that to be expected from an early-evening bolide. The observer states that the object was "round but dislike" and then again says that it was ten times longer than that. It appears to this investigator that this sort of impression could be given by a bolide, the persistence of vision accounting for the reported elongated appearance.
Incident 367 -- between Boise & Woridian, Idaho -- 9 July 1947

There appears to be a time discrepancy in this incident:

The summary report states that the object was in view 10 to 30 seconds, yet indicates that the observer had time to call a weather station to inquire about balloon releases, and also to expose 10 seconds of 6 mm film.

In any event, however, besides the fact that no smoke trail was indicated, traces of the object preclude the possibility of its being astronomical; meteors do not execute "slow rolls" or climb upward.

A better estimate of speed is needed. The possibility remains that the object may have been an unsymmetrically-painted balloon.
Incident No. near Lakeland, Florida -- 7 July 1947

There appears to be no astronomical explanation for this incident's upward trajectory and "plastic appearance" if accurately reported; do not lend themselves to such an explanation. No trail is mentioned.
Incident #05 — cancelled — see #20.
Incident #36 — Hollywood, California — 6 July 1947

From the limited data available, there appears to be no astronomical explanation for this incident.

Rolling motion and saucer shape relate the incident to many others, which, however, did not exhibit the ray phenomenon.
Incident No. 1 -- Germany -- date not given

As this incident is reported, it is very unlikely that any astronomical interpretation can be offered. The description is probably of a low order of reliability, however, and it is not beyond reason that a spiral smoke trail ("first thought it was a cloud") from a meteor was observed. "Unfortunately, no definite conclusion can be drawn."
Incident 788 — Hackensack, New Jersey — 3 August 1947

It seems clear that no astronomical interpretation can be given to this incident.

Information is so meager that little else can be said.

If the object observed was only 200 yards away, it would seem that witnesses could have furnished much more detailed information.
Incident no. 3 — 100 mi. W of Kansas City, Missouri — 8 July 1947

There is no direct astronomical explanation for this incident.

The striking feature of the incident is that the "very bright" object traveled in the same direction and at the same speed as the observer did, and that it appeared at 11 o'clock position at his left, or approximately opposite to the position of the sun at the time.

It cannot be proved, of course, but it is probable that the witness saw a direct reflection of the sun on some continuous object — thin clouds, ice crystals, or the like. (Had the object appeared on his right, then this explanation would be untenable. Its disappearance can be explained logically also, for turning altered the observer's angular relationship to the reflector.

It is further noted that an apparent inconsistency exists in the report. The observer first stated that the object appeared to be the top of a water tank "low and to his left"; after checking his position he stated that the object was at 11,000 feet. The inconsistency in altitude throws some suspicion on the observation. If the object was low, then a running reflection along a river or railroad track would be a promising explanation.
Incident report between Las Cruces, New Mexico & White Sands V-2 firing grounds — 22 June 1947.

The information given here is insufficient for any definite conclusions to be drawn, but it is not impossible that the object observed was a meteor. The estimated time in flight is quite long. Observation of a meteor, the object should have had a pronounced cone shape and a slight specular reflection which seemed to change in intensity due to, or source, have been light from the meteor itself, dimmed with daylight.

Once again, it is unfortunate that more detailed observations were not made.
Incident No. - Montgomery, Alabama - 26 June 1947

No astronomical object could possibly behave in the manner described in this incident.

A small lighted balloon at the mercy of changeable winds aloft might offer a possible explanation.

(The stated position of the moon at the time has been checked and found to be correct.)
Incident 292 — Manitou Springs, Colorado — 19 May 1947

There is no astronomical explanation for this incident; the reversal of direction of flight and the maneuvers executed by the object preclude this.

The speed is not stated with any exactness, but if it may not be too great, the object might have been a balloon, or aircraft seen under unusual conditions. Otherwise, there appears to be no plausible explanation.
Incident 593 — Hartford, Connecticut — 11 January 1949

Despite the absence of a trail and of sound, identification of this object as a fireball at the very end of its trajectory seems possible. It is described as "shooting toward earth at 450," as resembling a "shooting star," and as having a very high velocity.
Incident #64 — 42° 3.3' N, 114° 23.2' W — 30 December 1947.

This incident and incidents #95, 96, and 97, which describe the same object, clearly refer to a thoroughly authenticated fireball. These sightings can be dismissed with finality by the following quotation from Popular Astronomy, October, 1948:

Fireball of 1947 — Dec. 30

Nancy L. Weber

On this date at 7:30 p.m. PST a brilliant fireball appeared travelling westward over southern Oregon. ... con. H. Pratt gathered numerous reports from observers in Oregon, California, and Nevada, and from these made an appropriate solution for the path. He sent both his solution and all the 47 reports to the Plover Observatory where another solution was independently made. Ours agreed closely in all respects with that of Pratt except for the heights.

The meteor was most generally reported to be bluish-green in color. It appeared to explode twice, lighting up the countryside to close observers. The sound phenomena were limited to 3 out of the 47 observers.

From the height at which the meteor exploded it is doubtful whether any fragments reached the ground.

It is clear from the general agreement with this of evidence given in incidents #64-97 inclusive that this fireball was the object being described.
Incident #3 -- Rosedale, California -- 30 December 1947

The description given here refers to an authenticated fireball. See report on incident #94 for details.

It is likely that the fire observed on the ground by viewers of this incident had no connection with the fireball, but it is not out of the question that a fragment of the bolide did land and cause a brush fire.
Accident #98 — near Lovelock, Nevada — 23 December 1947

The explosion seen in this incident was undoubtedly that of the fireball discussed in detail in the report on incident #94.
Incident #92 — between Medford, Ore., and Mt. Shasta, Calif. — 30 Dec. 1947

The flash or explosion referred to here agrees also in time and location (no other details are given) with that of the fireball described in detail in the report on incident #94.
Incident #98 -- Houston, Texas -- 2 November 1947

The information given here indicates strongly that the object observed was a fireball. There is nothing to suggest that it was not. As far as "falling into a nearby field" is concerned, that is perhaps the best-attested illusion with respect to these phenomena. Very frequently a fireball is reported to have fallen in a "nearby field" all along its track across two or three states.
Incident #961 -- Finland -- 3 January 1943

Information given here is insufficient to establish even vague identification.

The object seen could have been a fireball, although the length of time of observation seems unduly long. Perhaps this is subject to considerable error?
Incident #100 -- Finland -- 8 January 1940

Information given here is insufficient to establish any sort of identification. There is nothing in the scanty report of the incident, however, that could not be explained as a meteoric phenomenon.
Incident 101 -- Dodge City, Kansas -- 10 February 1948

This now-celebrated case of an unusual fireball has been adequately reported in astronomical literature; (for details, see Sky and Telescope, April, 1948, page 164, and October, 1948, page 263). Positive identification has been made by the recovery of fragments. The origin of this object is, therefore, definitely astronomical, and the incident need not be considered further.