ABSTRACT

THE HESSDALEN REGION IN NORWAY IS RECOGNIZED WORLDWIDE AS A LOCATION WHERE ANOMALISTIC LUMINOUS EVENTS HAPPEN FREQUENTLY. IN ORDER TO BE A STIMULUS FOR THE LONG-AWAITED, COMPLETE, AND UP-TO-DATE CENSUS OF PHOTOGRAPHED ACTIVITY IN THE AREA, A PRELIMINARY CATALOGUE OF PICTURES, FILMS AND VIDEOS OF ALLEGED UFO PHENOMENA OBTAINED IN NORWAY 1900-2005 HAS BEEN PREPARED. THIS CATALOGUE PLACES THE HESSDALEN PHENOMENA INTO PROPER HISTORICAL AND NATIONAL PERSPECTIVE DURING THE TWO LAST CENTURIES, IN RELATION TO OTHER UNIDENTIFIED EVENTS IN THE COUNTRY. IT IS INTENDED TO SERVE AS A REFERENCE FOR OBSERVATIONAL ANOMALOUS (LUMINOUS AND NON-LUMINOUS, EXPLAINED AND UNEXPLAINED) AERIAL PHENOMENA IN NORWAY.

FOREWORD

FOTOCAT is a worldwide databank comprising photographic UFO records managed by the first author (http://fotocat.blogspot.com/). A major objective within this project is the preparation of national catalogues and surveys, ideally in association with local investigators (1-3). The present paper is FOTOCAT Report #4.

The authors are members of the EuroUFO network (http://www.euroufo.net), a large pool of UFO researchers, and the launching of this cooperation arose quite naturally in the course of mutual correspondence. The exercise has proved to be both fruitful and interesting. It has been a long-distance working relationship between Valencia (Spain) and Oslo (Norway). The dense and frequent exchanges easily materialized thanks to electronic mail and related technologies.

The first author started research on the UFO phenomenon in 1965 (4). The second author has devoted himself to the study of UFOs since 1986 (5). Both develop this activity in conjunction with their full-time professions (the first author early-retired in 2006.)
INTRODUCTION

Photograph, in the popular philosophy, is the best evidence to prove the existence of something, e.g. “a picture is worth a thousand words”. In observational sciences, astronomy for instance, photographic records are basic.

Hessdalen in Norway has produced innumerable eye-witness reports of anomalous phenomena, and is therefore an area of special interest (6). In addition to the human observers, there is a large amount of instrumented evidence, in the form of photography and video, either by persons or through automated recordings by on-site equipment.

In spite of a recurrent phenomenon photographed at least since the early eighties (7), surprisingly no one has decided to produce a decent inventory of all photographic and film evidence obtained over the years in this area.

We do not intend to produce such a long-awaited, exhaustive register of anomalous activity in Hessdalen; however with this catalogue we attempt to stimulate the interest of Hessdalen researchers to compile such a definitive work.

Starting with data from the FOTOCAT Project and combining that data with documentation supplied with the cooperation of Ole Jonny Brænne, from local organization UFO-Norge, we test the possibility of creating a preliminary catalogue of all UFO occurrences reported in Norway. Although the present catalogue also collects the photographic events in Hessdalen (collated by performing a comprehensive, but probably not exhaustive, review of the literature), it is mainly targeted at the gathering of UFO reports in Norway, as far as pictures and films are concerned.

PROCEDURES

Or what we have done and what we have not done. Our starting point was an initial Norway catalogue from the FOTOCAT database as of early January 2007 (it gathered together photographic cases from Norway found in the mainstream international literature). By then, we had compiled some 40 cases for this country (by comparison, the number of independent cases for Norway stored in the largest world UFO catalogue, UFOCAT, was just 18).

The next step was to proceed to a deep review of UFO-Norge and the second author’s personal files, the Norwegian UFO literature (books and specialized journals), and available collections of newspaper clippings where UFO stories were described. Then, national UFO-related web sites were visited. This procured the addition of an important number of new cases. At the same time, the first author reviewed Project Hessdalen’s official site, PH-produced reports,
as well as related articles and web sites worldwide in order to capture data on every photographic event reported in the Hessdalen Valley.

The resulting catalogue grew in size from 40 to 744 cases! Roughly, we have extracted the cases from the following set of sources examined:

<table>
<thead>
<tr>
<th>Source</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial catalogue</td>
<td>40</td>
</tr>
<tr>
<td>Local literature &amp; files</td>
<td>120</td>
</tr>
<tr>
<td>Newspaper clippings</td>
<td>65</td>
</tr>
<tr>
<td>Web sites</td>
<td>50</td>
</tr>
<tr>
<td>Hessdalen reports</td>
<td>469</td>
</tr>
<tr>
<td>Final catalogue</td>
<td>744</td>
</tr>
</tbody>
</table>

This is a fine example of the potential cooperation that internet communication brings. We have accomplished all that in a 6-month period, in spite of the long distance between the two authors. It was possible only thanks to the possibilities that the global net allows for data exchange.

Explained cases are those which were so identified by original sources, the advice of our colleagues, as well as some obvious misinterpretations. Except in a few particular instances, we have not subjected the unexplained cases to any forensic study. Reports have not been re-investigated either. Witnesses have not been located for data improvement. Original information sources have not been contacted for detailed discussion, re-inquiry or analysis. This is something we feel must be done, because our experience shows that a process oriented towards the investigation of individual cases will solve many “unsolved” reports.

Norwegian UFO researchers are strongly encouraged to follow-up on the present work along the lines mentioned above.

A COLLECTION OF REPORTS

A brief synopsis of every case on record follows. The present on-line publication is an extended version to the original’s full paper, and it is aimed to provide as many photographs as possible so that the reader has a complete visual coverage of the phenomena being reported.

When a photograph is available it is inserted just beneath its corresponding summary.

A note on the quality of some pictures will be in order. For a number of these photographs, our only sources have been newspaper clippings, or even photocopies of such. It explains their poor condition. But at least we have provided some clues for others to follow-up.
27 July 1909, night – Drøbak, Frogn
This photo is variously said to be from 1907 or 1909, and was first published as a “UFO” photo in 1967 by an Italian weekly magazine. It turns out to be a cropped and retouched version of a previously published photograph of noctilucent clouds by Carl Störmer (1874-1957), a Norwegian researcher into the aurora borealis and professor of mathematics. He initiated a project to measure the height of the aurora borealis as well as various types of clouds. The project (1908-1912) consisted of separate stations for triangulation purposes, and one of these was in Drøbak. Several hundred photos were taken during this time, and he later published a photographic atlas of the aurora borealis.

1947, day – Norway, unknown location
The father of Reidar Hovdseveen’s live-in girlfriend shot the photo of a house, which shows an obvious development flaw. Not much more is known about this case.
19 September 1952, afternoon – USS Franklin D. Roosevelt in the North Sea
During Operation Mainbrace, the first major NATO exercise in the North Atlantic, several UFOs were observed and reports were published in various newspapers, both in Norway and other countries. On one of these occasions, a reporter named Wallace Litwin observed a white sphere above him and took a series of photos of it. The myth of these photos is quite interesting, for example it is rumored that the photos were never published (another proof of the cover-up by the US military). However, Ole Henningsen of SUFOI (Denmark) actually tracked down the photographer, and the photos were published in 1978. Litwin initially believed this to be a balloon, as well it might have been.

![Image of USS Franklin D. Roosevelt in the North Sea]

Easter 1953, April 4, approximately, day – Holteskaret, Hemsedal
Just-married Esther Wilberg was on an Easter skiing holiday together with her husband. She claimed they observed a red ball of light coming out of the clouds, continuing across the sky for 5-6 seconds. She managed to get her camera up and take one photo before it disappeared into the clouds again. The shape of the image definitely suggests that a drop of fluid fell onto the film. Perhaps the observer really did see a phenomenon, took a photograph of the empty sky, and the image was subsequently damaged in the development. The negatives cannot answer this because they have been lost.
30 June 1954, 13:30 – Heggedal, Asker
Dorothy Huitfeldt took a photo of the solar eclipse this day, and a lens flare appeared on the photograph. Because of the vast media interest following the Bjørnulf/Conradi film (see below), we suspect quite a few photos like this were published in local newspapers during 1954. No exhaustive search of local newspapers has been initiated yet.
30 June 1954, 13:30 – Norway airspace
A number of scientists and movie crews left Gardermoen in three aircraft, to photograph the moon’s shadow during the solar eclipse. Johnny Bjørnulf took a photograph where a lens flare is evident.

30 June 1954, 13:35 – Gardermoen, Ullensaker
Major Hans Hauge, an Army Air Force photography pioneer, took some photos of the solar eclipse, at Gardermoen airport. When developed, the photos showed lots of lens flares.

30 June 1954, 14:17 – Lifjell, Seljord
This is the movie shot by Raun Conradi from the same aircraft as Johnny Bjørnulf, Toralf Viking, and often erroneously attributed to Bjørnulf himself. On a good quality version one can clearly see the sunlit window on the opposite side of the aircraft reflected in the window through which the film was shot.
August 1956, day – Hegra, Stjørdal
A person took a photo of a house that was burning, and something appeared on the photo when developed. Nothing much is known about this case. We suspect a simple lens flare.

11 August 1956, evening – Mo i Rana, Rana
Sigurd Gaasland took some 100 frames of 8mm movie film of a luminous ball of light, slowly moving from east to west. He spotted the object while filming a family event that evening. Original cine film is unavailable, but from descriptions in newspapers it is probably a balloon.

24 July 1957, day – Coast of Norway
Mrs. W. Felton Barrett, an American tourist, shot landscape photos of a fjord. One of the photographs was ruined by a saucer-shaped reflection from a diamond ring she was wearing.
July 1960, day – Norway, unknown location
A young man with a camera passes an old house. While looking at the house, it suddenly and explosively bursts into flames. He took lots of pictures of the fire. When developed, it appeared a flying saucer was hovering above the farm, sending down three powerful beams of light that joined above the burning house. The source is a single Swedish newspaper clip. We consider this to be a hoax. Possibly this is a distorted account of the August 1956 case.

May 1966, day – Trondheim
Monrad Kjellby, photographer for the Adresseavisen newspaper, took a photograph of an unusual cloud formation. Probably just as an illustration for the article.
8 September 1967, 01:00 – Rørvik, Vikna
A woman saw a flashing red light moving slowly across the sky and took one or more photos. From the description, it seems to be a satellite, but unless we can find the photos we cannot decide with absolute certainty.
Insufficient information.

1968, night – Båtsfjord
The observer was a child at the time, when she and other children were outside making angels in the snow. It was a full moon this night and suddenly they saw another moon as well. They were not sure which moon was the right one. She ran home and got her parents out to see this thing. Her father, now deceased, filmed the phenomenon – also observed by others – and there was an article about it in the newspaper a few days later (unknown Finnmark newspaper). This happened in either 1967 or 1968. The film is unavailable, and newspapers of Finnmark from 1967-1968 have not been searched yet.
From description of phenomenon this may be a moon dog – a paraselene halo.
Insufficient information.

21 January 1968, 19:13 – Østlie, Dal (UFO)
Ola Arnesen and his family observed a bright red-white object moving towards the north for four minutes. His daughter took a few photographs, but according to the newspaper article, they had not been developed yet. As both “Ola” and “Arnesen” are very common names, the possibility of tracking down this family is virtually impossible. Perhaps complementary information can be located in later editions of the newspaper.
Insufficient information.

May 1969, day – Meråker
Not much is known about this photo, except that it was a journalistic fake.

28 July 1970, 14:00 – Hemsedal
An anonymous Swedish pilot and his family (wife and two sons) who were on vacation in the Norwegian mountains, managed to film a strange object that seemingly hovered without any motion at 1,000 m altitude or more. The portion of film showing the object was only about 10 cm long. They saw the object for many minutes before he started to film it, then he ran out of film and went inside
to change to a new roll. When he came outside again, the object had disappeared. Most likely a high-altitude balloon of the triangle-shaped kind, which were very common in Europe during those years.

29 July 1970, 16:05 – Strandavann, Hallingskarvet
Five people observed a triangular-shaped object with a round ball underneath. It was more or less stationary for the 15 minutes it was observed, even though the wind was strong at ground level. It was occasionally obscured by moving clouds. As the observers had to leave with a bus, it is unknown how the object disappeared. Most likely a high-altitude balloon of the triangle-shaped kind, most prolific those years in Europe.

1 January 1972, 04:15 – Moss
At a New Year’s party in Moss, pilot Peter Bull was the first to see the objects. Everyone at first though this was just some delayed fireworks, but soon decided this was not so. About 20 seconds went by before Einar Hotvedt shot the first of three photos of the objects as they flew past them almost directly overhead.
1 January 1972, 04:15 – Askøy
Atle Liland first thought the objects were regular aircraft, so he didn’t react until he noticed there was no aircraft sound. He then shot an 8-second time-exposure photo, before the objects disappeared on the horizon.

1 January 1972, 04:15 – Lillehammer
Steinar Aurmo, a police student, was on his way home from a New Year’s party, when he spotted two lights coming from the northwest (from the direction of Bergen). He first thought they were regular fireworks, but the lights continued to rise and get brighter, followed by three more and then still three more. He managed to shoot two photos. The objects stayed in formation and had a constant speed.

The events of January 1, 1972 should be used in the education of field investigators – NUFOC (and the newspapers) received dozens of UFO reports on this date. People were even describing cigar shaped objects with windows! However, all the reports from January 1, 1972 were caused by the re-entry of the Kosmos 453 rocket booster.

6 January 1972, night – Kjøpsvik, Tysfjord
A luminous object was observed by many people, and it fell down nearby. Freelance journalist Kristian Larsen took two photos of the object after it fell down. The debris was then shipped off to Bodø by the military.

The photos show a paper balloon with some wires attached at the bottom. Probably some candles were also involved, causing the balloon to rise and to appear luminous.
16 January 1972, night – Rendalen, Engerdal
Odd Westgård, a student at Evenstad Forestry School, was on his way back to school after spending the weekend at home in Engerdal. On the mountain pass from Engerdal to Rendalen, he noticed a luminous ball of light in the sky. He estimated the apparent size as twice that of the moon, and he watched it for 45 minutes.
We suspect he misinterpreted a planet. The newspaper article doesn’t mention the azimuth of the observation, so it is not possible to find the proper astronomical correlation (the planets Mars and Saturn were above the horizon that night, in the SW). The picture certainly looks like an out-of-focus astronomical object. Insufficient information.

8 February 1972, estimated 00,33 – Holter, Nannestad
At “midnight,” Mr. and Mrs. Kjell Christensen sighted an object in the sky. It pulsed with an orange ember, but was more red-colored near the edge. Coming from the west, it seemed to grow in size and then make a slight sudden jump, then dimming out and disappearing.
Harvard professor Jonathan McDowell indicated a match with the launch of a sounding rocket at 23:33 GMT on February 7th (00:33 of the following day, Norwegian time) from Kiruna, in Sweden. There is every indication of this, including the "sudden jump" of the object, when a new stage of the rocket is lit. Brief information on this event published three years later dates the film as February 12th. We believe this is a dating mistake.

12 February 1972, 23:00 – Holter, Nannestad
The weather is clear, no wind, temperature is -8°C. Kjell Christensen notices an object towards the west at about 30° elevation. The phenomenon (on film) looks like a mushroom with many colors, mostly orange-yellow, but also white, green, and blue. The intensity of the light varies during the film. The object went towards the north, then towards the south, then to the north again and
disappeared. Super-8 film with 18 frames per second was shot with 32mm telescopic lens. Most likely a balloon.

8 March 1972, 22:40 – Askøy
Finn Fossmark observed a reddish object towards the west-northwest. Weather reported to be calm, a few clouds, no moon visible. The object was stationary and still visible when observation was terminated after 10 minutes. According to the scant report available, this was the same object as the one photographed by a journalist of the newspaper Dagen. The planets Saturn, Mars, and Venus were visible low above the horizon in the west (Venus at 10°, Mars at 22°, and Saturn at 29°).
In our view, the planets Mars and/or Venus are the most probable explanation for this long sighting.

17 March 1972, 18:35 – Bergen (UFO)
The observer was casually looking out the window when he noticed a trail of yellowish sparks above a nearby hill. He continued to observe this phenomenon and grew aware of a large dark ball-shaped object in front of the sparks. The phenomenon was then on a southerly course, and suddenly made a sharp turn towards the east. While this was happening, his wife was running inside to fetch the movie camera for her husband and her own slide camera. He filmed it and she took two photos. When the object came towards them, they saw three lights on the front end. When it was right above them, it seemed to rotate, and the wife seemed to hear a pleasant sound from the object. The object moved to the east and disappeared behind a mountain. The elevation of phenomenon was approximately 45°. Clear weather, no wind, temperature of +9°C, and no moon was visible.
The slides and film have not been located. Insufficient information.

October 1972, 04:00 – Trondheim
During several nights late in October, Alf Haugan observed a strong yellow-white light, sometimes for several hours at a time. I see it every night. I don't know what it is, but it's not a star or a satellite. It is smaller than the moon, sometimes it is stationary, and sometimes it is moving, even rotating around its own axis. The phenomenon was usually most visible in the early morning hours from four to seven, and it was described as a cigar-shaped UFO with half-moon wings. He even filmed the object, waited anxiously for the results, but after development there was nothing on the film.
On the 25th, the planet Venus rose in the eastern horizon at 04:10, and by 07:00 its elevation was 18° approximately. Sunrise (and daylight) was around 08:40, and Venus would have disappeared from view around an hour before that.
We find that the confusion with the planet Venus is the most likely explanation.

1973 – Holter, Nannestad
We have four frames of an 8mm film recorded by “repeater observer” Kjell Christensen. No other information is available to compilers. Photographs look like flares that an aircraft would launch.
Insufficient information.
1973 – Hektnersletta, Rælingen
There exists only a time-exposure picture with a note attached to it. It is not known who was the photographer, or any direction or time data. It could be a photograph of any bright planet.
Insufficient information.

11 January 1973, 23:00 – Tønsberg
A boy and his fiancée were driving along near Tønsberg this clear starlit night, with no fog or wind. The boy spotted a large ball of light in the sky. It was more luminous than a star, and it had two blinking outgrowths. They were blinking in many colors at the same time. It was standing still for approximately 3-4 minutes, then moved out over the Oslo Fjord. It stopped again and stood still for about an hour. Many people was gathering to observe this phenomenon, among them journalist Roar Hansen as well as the photographer Jens Petter
Gjelseth (both of the Vestfold newspaper). The object disappeared after three hours. To us this sounds like a combined case of an aircraft first, and then a star.

1 April 1973, 20:10 – Holmestrand
Jan-Ivar Mellingen and a friend, John-Arne Thomassen, first observed a luminous white point of light over a hill in the SE. The light was moving north without any sound and it disappeared. While they were discussing their observation, another light of the same appearance appeared and followed the same course. All this elapsed within 10 minutes, from 19:40 to 19:50. They both drove to another vantage point. At 20:10 they spotted in the NNE a luminous, white object, a little brighter than a star. It traveled west with constant speed until it changed to the north, then it turned towards the observers and it appeared to accelerate. The light grew red and yellow. It passed behind a low formation of clouds, and when it appeared again it was more deep red, disappearing finally towards the ENE. Three photos were shot when the object was traveling away. Nothing is shown on the negatives because of wrong exposure.

8 April 1973, 20:10 – Horten
Mellingen and friends continued to observe various phenomena/objects on the 6th and 7th. On the 8th, at 19:51, they were at Horten again (at the same vantage point), when they saw a white luminous object over the Oslo Fjord going NNE with constant speed. No sound was heard. At 20:10 a light was seen moving towards the NW. Its color varied between red, yellow and white, disappearing behind a mountain. A series of photos was shot.

9 April 1973, 20:04 – Horten
This night, five people (including Mellingen) observed a bright stationary object towards Røkke (in the east). It appeared suddenly, and after a while it moved towards the SSW, changing to a red pulsating light, disappearing in the distance. During the next 20-25 minutes several lights/objects were seen, and at one time three were seen simultaneously. All were without any sound. Numerous photos were shot with at least two different cameras. Because of the great distance and difficult light conditions, only a few of the photos showed anything at all. We consider these continuing observations to be most probably caused by aircraft (soundless because of wind) and possibly stars (Vega and Arcturus). Sunset in the west was around 20:00 and the stars were just starting to become visible around this time.
20 September 1973, 21:45 – Rælingen
A light was seen near Ursa Major (also known as Big Dipper). A photo was shot as the light grew weaker, as if it was entering the Earth’s shadow. The object disappeared in the WSW at approximately 35º elevation. Sounds very much like a satellite.

10 December 1973, night – Hamar
Theodor Abrahamsen (rector of Hamar Cathedral School, 1971-1987) was doing some astronomical photography work, taking photos of the moon from his private observatory. Three of the photos show what appears to be a luminous object next to the moon. Actually it is a common lens flare. The photos were printed upside down in Hamar Dagblad, February 5, 1974. Also, the planet Saturn is visible in the photos as a small luminous dot near the center of the frames.

1974, night – Holter, Nannestad
Photograph taken by “repeater” Kjell Christensen showing obvious lens flares.
1 January 1974, night – Ålesund
Until January 1st, a luminous object was seen passing by nightly in the southwestern sky. It appeared in the afternoon and took a couple hours to go to the south where it disappeared.
This sounds very much like an observation of the planet Mars.

7 January 1974, 17:30 – Ulvensletten, Bergen
“A young man” delivered a photo, shot towards the SW, after the newspaper published an article about the comet Kohoutek. In the following editions the discussion about the photo and the object continued.
Both planets Venus and Jupiter were close together directly in the SW at the time.
28 February 1974, 17:30 – Noresund, Krødsherad
A 17-year-old boy sent a faked photo to the Verdens Gang newspaper, just to show that it is very easy to fake such photographs.

13 March 1974, 18:25 – Lillestrøm, Skedsmo
Note: On the evening of March 13, 1974, a brightly shining luminous object was observed for an extended period of time from various places in eastern Norway. John Oldertroen at Tynset saw the object from 16:35 until 18:55. At Bøn (Knut Aasheim), Lillestrøm (Eldbjørg Fjeldberg), and Nesbyen (Sverre Gulbrandsen) it was followed from 18:25 until 19:20. The object made changes in course, height, and speed. First with slow speed SSE for 90 minutes, then stationary above Tronfjell for about 30 minutes; at 18:50 it was again moving slowly before accelerating and finally disappearing. Ten years later this was still considered, by certain Norwegian ufologists, to be very good evidence for UFOs. However, it is quite clear this was only a scientific research balloon.
Eldbjørg Fjeldberg shot several photos of the object with _ to 1 second exposure time.

**13 March 1974, 18:30 – Nesbyen, Nes**
Sverre Gulbrandsen shot several (12?) photos of the same object, with from 1/8 second to 1/30 second exposure – mostly with 1/15 second exposure time.

**13 March 1974, 18:45/19:10 – Gjøvik**
Terje Olsen, a journalist with the *Oppland Arbeiderblad* newspaper, got a call about the object from John Myhre and Olav Gamme. They had just come back from a flight in their *Cessna* airplane. Olsen and colleague Trond Stenberg then traveled to Osbakken, near Skumsjøen, Gjøvik. They arrived there at 18:30 (and stayed until 18:45), and Trond Stenberg shot a photo of the object. The object was then stationary. Together with Olav Gamme (pilot) and John Myhre (passenger), the four of them chased the object which had started to move again, for about 20-25 minutes, aboard their *Cessna*. With a top speed of 160 km/h they did not close in on it. They were then about 100 km west of Gjøvik. A few black & white photos were taken from the airplane by Terje Olsen.
1 December 1974, night – Ål (UFO)
An anonymous report to the press of a luminous object observed moving north. The object then stopped, and after 1 hour it disappeared towards the northwest at high speed. At least one photograph was taken.

2 December 1974, 22:30 – Lillestrøm, Skedsmo
A red light traveling from east to west 5-6 degrees above the horizon, was seen by Kjell Christensen and his wife. He managed to take two photos of the light.

2 December 1974, 22:45 – Lillestrøm, Skedsmo
15 minutes later, a red-orange light came from the north flying to the south, 7-10 degrees above the horizon. It was moving at a low speed and it changed light intensity. During 2-3 minutes, Christensen shot five photos. Three normal and two time-exposure (5-9 seconds) photos were taken. Photos were published in the weekly magazine Vi Menn.

18 December 1974, 22:05 – Lillestrøm, Skedsmo
Kjell Christensen and wife observed a red-orange object traveling north to south at 5-6 degrees above the horizon, at slow speed, eventually disappearing behind a hill.
Note: This set of descriptions during the month of December by frequent UFO photographer Kjell Christensen seems to be fully compatible with the observation of aircraft.

19 December 1974, 12:00 – Kvalsund
People all over Finnmark County observed this. A luminous, plow-shaped object, traveling on a straight course, was visible for approximately one minute. It eventually split into two or three parts and disappeared. A photo was shot of the object, at Kvalsund, but the image accompanying the newspaper article is a drawing, as the photo was of a poor quality.
We suspect a fireball or meteoroid (no re-entry in NASA log for this day).

21 September 1975, 00:00 – Lierdalen, Lier
It was just past midnight between the 20th and the 21st, when a woman noticed a red light 20-30 degrees above the horizon. She called her husband and he
saw the same light. She went outside to watch, and shortly after that her husband went outside, but the light had disappeared by then. She said the light vanished suddenly, as if a lamp was shut off. Shortly thereafter, two lights appeared near where the first one disappeared. These were also yellow-red in color. The husband then ran inside to get his camera. He came outside again and took a photo of the two lights. He took photo number two just as one of the lights disappeared, and then another shortly after the last light disappeared as well. They saw clouds in the background the whole time (approximately 8 minutes) and there was no sound.

The lights were also seen by another couple in Egge, Lier. They first saw one red light that disappeared, then another that appeared and disappeared in the same general place as the first one. Total observation time for them was 5 minutes.

The local newspaper received an anonymous call about a week later, claiming a party that night was responsible for shooting up some fireworks. This seems a likely explanation, as some fireworks are equipped with small parachutes (Roman sun), and thus last a long time.

1976, day – Valdres

A landscape photograph shows a white elongated light. It could be a lens flare or a development/film flaw. Author of picture is well-known producer of UFO photos, Kjell Christensen.
1976, day – Åsgårdstrand, Horten

Through a second-hand source we received four photos of an object on the ground. Allegedly the object was observed while landing, photos were then taken, after a while the object took off and it disappeared in a flash of light. A fifth photo is said to have been shot just as the object disappeared (not seen by any investigator). No written report exists. We consider this to be a crude hoax.
20 February 1976, evening – Steinsholt, Numedal (UFO)
A shining ball of light, gliding through the evening darkness, illuminating the valley with a reddish glow, was filmed by Mary Anne Berg. Her husband, Kåre Berg, was also a witness. It was completely soundless, with a steady course northwards through the valley, maintaining the same altitude during its entire flight. Then, just before it disappeared, flashing red lights were emitted, resembling welding flames pouring out in the darkness. The light flashed in a series around the ball, until it disappeared completely.
The film was submitted by NUFOC to the Department of Astrophysics at the University of Oslo: We have measured the blackening of the film with our micro-densitometer. This shows that the camera was out of focus, while all the pictures have a light ring just inside the edge of the light area. This is also apparent on copies (negatives) of the movie. If one examines the report of the witnesses, the apparent size of the object is said to be about 0.5º (a pea), but the film shows it as about two degrees. This indicates that the camera adjustment must have been out of focus. As consultant Andrés Duarte explains, this image is not that of the observed object, but the camera aperture’s shadow or iris and some concentric diffraction rings. Nothing is seen of the object’s actual appearance.

April 1976, daytime? – Raufjellet, Osen (UFO)
We have no written account of this photo. We are not even sure of the province, as there are other cities with the same name elsewhere. The photo shows an extremely small point of light, and could be anything. Insufficient information.
4 June 1976, midnight – Skarvevannet, Ringerike (UFO)
Kjell Fremnes and Halvard Greftegreff spotted a bright light in the sky. It appeared to be “dancing” up and down, while also moving forward. They first thought this had to be an aircraft, but the way it was moving caused them to exclude that possibility. Light was orange-yellow, had no sound, it was on a course from north to south, and it disappeared behind some trees. Height was at approximately 35º, and the weather was clear with no moon. Fremnes shot two photos of the object.
The reproduced photo is of such low quality that it is impossible to evaluate what it represents. Insufficient information.

20 August 1976, 19:45 – Lillehammer
A journalist was at work outside Lillehammer Kirke (a church), waiting for a colleague. Quite by accident, he saw a cigar-shaped object with no wings, flying south. It had no sound or exhaust, and the sunlight caused the object to appear shiny. The object was first at some 60º height, and it disappeared low on the horizon after 90 seconds. He estimated the size of the object at 10-20 meters, with the speed of an aircraft. It passed below a few clouds. The observer shot several photos, but nothing appeared on the photos after development. We consider it was likely an aircraft.

September 1976, night – Ullensaker
We have this photo with some notes on the back saying it was a double exposure. Photo shot by Kjell Christensen some three kilometers west of Gardermoen (Gardermoen is on the border between Nannestad and Ullensaker), in the beginning of September. This is a time-exposure of the northern sky, while the photographer was indoors. Allegedly the light track it shows just appeared after development. A fake.
November 1976, night – Svalbard (UFO)
During the winter of 1976-1977, several polar researchers were living in Svalbard. One of aims of this project was to photograph the aurora borealis every minute. Monica Kristensen, a Norwegian glaciologist/meteorologist/polar explorer, saw a round white light come in from the sea and fly slowly towards Ny-Ålesund. She first thought it might be a helicopter. It seemed to sweep the landscape with a searchlight. It was later discovered that the object had been photographed by the All-Sky camera on top of their research station, and had also been seen by Ole Christian Røren, another member of the expedition. The photo was never properly investigated by the Norwegian Polar Institute or other researchers. Several inquiries have been made, but the photo is now believed to have been lost.

1977, day – Holter, Nannestad
Kjell Christensen again! Just a photo, no written report or other information exists. The picture looks very much like a cloud.

10 March 1977, 22:15 – Ålesund
A luminous object quite low in the western sky, moving south-west, was seen. Torkild Børs Lind managed to shoot four photos of the light. Two of the photos were time-exposures of 2.5 minutes each. The photos show the course of the object. He followed the light for about 10 minutes. One of the time-exposure photos was published in the newspaper, showing the three lights of the radio tower on top of the Aksla Mountain to the left, and the object to the right. We can see from this photo that the object has traveled down and to the right, following the rotation of the Earth.
Both planets Jupiter and Venus were visible in the western sky at the time. Venus eventually set on the NW horizon at 23:45, and it seems to be the culprit.
Summer 1977, day – Veståsen
The witness reports: On a summer night I was fishing at Veståsen. I had no luck with the fish, so I was watching the sky now and then. Suddenly, one object after another glided off at tree-top height, and disappeared quickly towards the east. This cannot be true as the picture shows the “objects” moving in the direction of the setting sun (west). The article was published in the satire and humor section of the newspaper. We feel confident the photo is a fake.

August 1977, day – Gossen, Aukra
A photographer with the Romsdal Folkeblad newspaper was taking photos of the Aukra Bruk facilites, on the island of Gossen. Upon development of the photos, at least two of them showed a small black object in the sky he had not seen. The article had a joking text about aliens and industrial espionage.

September 1977, day – Hallingskarvet
In the beginning of September, Hans Fredrik Parr was on a mountain trip with his wife and two children. The weather was clear, sunny, with no clouds. They shot numerous photos of the landscape. After development, a small black thing was on one of the photos, against a clear sky. Probably an out-of-focus insect caught close to the camera.
November 1977, night– Jaren, Gran (UFO)
A person observed a light in the eastern sky in the early evening for two minutes before it disappeared behind a cloud. Later the same night, he saw a light in the western sky, close to the horizon. He shot a photo of the light. This happened “last week”, i.e. between the 14th and the 20th. The text of the published article is again in a humorous tone, joking about radioactivity and the small number of people who have not seen UFOs yet.
Both planets Jupiter and Mars were visible in the eastern sky from 20:00 to 22:00 hours.
The photo shows a half-circle of light and could be just about anything.

26 December 1977, 22:00 – Åsbygda, Ringerike
A luminous ball of light with a comet-like tail moved horizontally back and forth over a hill for half an hour. I have seen the same phenomenon before, said a young woman to the newspaper. This time I was lucky enough to have with me a camera with film on it. I was with another woman, so I have witnesses. It was just before 22:00, the weather was clear and no wind, around -10°C. We went outside to see better, and I shot several photos of the strange phenomenon.
That night, the planets Jupiter, Saturn, and Mars, Sirius, as well as the moon – all bright objects – were visible in the eastern sky. The article does not mention anything about direction or what other objects were visible.
1978, night – Norway, unknown location (UFO)
Photo shows a red blob of light against a black background. No details available.
Insufficient information.

1 January 1978, 00:20 – Lillestrøm, Skedsmo
Together with three other people, Eldbjørg Fjeldberg observed an orange light for eight minutes. She first suspected some fireworks. The object was observed through 10x50 binoculars, and it looked like two ellipses standing on edge close to each other. They went outside; the object was at a height of 35°, and it started pulsating. As it got closer to the horizon, small white flashes were seen, and at one time sparks were shooting out from the light. Fjeldberg estimated the size as similar to signal light fireworks, and close to three times the apparent size of the planet Jupiter. Four photos were shot by Fjeldberg.
We suspect some kind of fireworks.

28 January 1978, night – Bergen
Svein Åge Olson was photographing the ship Bolero leaving the Bergen harbor. He had his camera on a tripod and set it to take time-exposures. Several photos were shot. After development, a UFO had appeared on all of them.
Photos show a typical lens flare.
For example, an identical lens flare found in another landscape pictures, this time in Miami, Florida, in the seventies:

Kjell Christensen was about to go to bed, when he took a look outside the window. He saw a light moving low in the sky. He fetched his camera and took two or three photos. A few seconds elapsed and the light came lower while its speed and light intensity increased three-fold. He now took some more photos, at least one of which is a time-exposure of three seconds, showing a yellow-red light against a black background, moving across the sky in an undulating up-and-down fashion (camera movement?). The light was first in the north and disappeared in the southwest.
Most likely an aircraft.

July 1978, 16:00 – Nordfjordeid
A white object was stationary over Nordfjordeid and it was observed by many people. Sonja Osnes, together with her parents, also saw it and she managed to take a photo. The object was white against a blue sky towards the WNW, and it remained stationary for about 45 minutes in total. 15 minutes after the photo was taken, it started to shrink and grew more diffuse, which it did for 15 minutes. After 15 minutes more, it had disappeared. It was about the size of the moon at its largest. This happened sometime between the 9th and the 16th of July.
It appears to be consistent with a cloud.

19 July 1978, 22:30 – Nes
Yngvar Askvik was going to get the dogs inside for the night, when he spotted two bright lights low on the western horizon, moving south to north. He called to his wife, who observed the same thing. A press article said they have observed this same phenomenon at least 12 times since April. He managed to take ten photos with a borrowed camera. Time-exposure caused them to be a little fuzzy.
This was just after sunset, and the stars and planets were becoming visible. We suspect the planets Mars and Venus were responsible, plus some atmospheric scintillation.

10 December 1978, 07:50 – Odda
A bright object, “three times as large as a star,” was seen low in the horizon for 1 hour and 20 minutes, both with the naked eye and through binoculars. It was moving upwards to the SSE, getting smaller (less bright) until it disappeared around 09:10. Several color photos were taken, but only a sketch was published in the newspaper.
The planet Venus rose in the SE shortly after 06:30 and continued to rise to 8° by 08:00. Sunrise was around 10:30. We consider these photos to be Venus.

4 January 1979, 23:15 – Lillestrøm, Skedsmo
Kjell Christensen spotted a small light in the eastern sky. He first thought it was a planet, but as the light was growing he next thought it was an aircraft. He got his binoculars and concluded this could not be any helicopter or aircraft. He saw no navigation lights at all, and it filled a third of his field of view when looking through the binoculars. It seemed like a bundle of yellow-white lights. In a half-circle above and to the left there was a strip of many colored lights changing quickly between red, green, and white. He also saw aircraft at the same time, but this object was traveling much slower. He took several photos with a 400mm telescopic lens. All but the first photo was black.
The photo shows a “dog-shaped” yellow blob of light. KC credibility is nil for us, so we feel his pictures are just fakes and misinterpretations.
6 February 1979, 08:00 – Magnor, Eidskog
On his way to the school bus, Tore Evensson observed something unusual in the eastern sky. First, an orange ring high in the sky, then a long saucer-shaped object with a ball on top of it. It was followed by an undulating stripe with a sort of spiral in it. His sister, Gro, and his friend Per Kvesetberget also saw the same thing. Svensson took some photos of what they saw. Very unfortunately, when the photos were developed, they did not show anything. The newspapers reported the same object was also seen by others at Eidsvoll and Stange. The description made by the 15-16 years old children reads similar to a flying kite.

8 October 1979, 04:55 – Oslo
Tom Bliksmark (age 12) was out of bed around five in the morning to get a glass of water. He was at the kitchen window, drinking his water, when he saw a strange luminous object over the houses 100 meters away. It moved with high speed above another building, and then it stopped and remained stationary there for about a minute. He went to get his Kodak Instamatic camera, and when he came back the object had become dark. It wasn’t made of metal, but it wasn’t a cloud either. It was like a blob of light and dark, he said. He took a photo of it, and then it came closer as it changed shape. He then took another photo, as he started to feel odd. His eyes were itching and tears started running. He observed this object for about five minutes. Then it disappeared at high speed. No sound was heard from the object during this time. It was no spaceship or flying saucer, but something unusual. I was scared and my eyes hurt for a long time afterwards. My hands were shaking when I took the photos. I thought God were coming to get us, he said. There are several problems with this case. Allers magazine gives the time as around 5 o’clock, and Vi Menn says 04:30, both dating it in November 1979. UFO-Norge archives show that the date of the case is October 8, 1979, at 04:55 hours. The report form was filled out and signed by Tom Bliksmark himself on November 3, 1979. Both the photos show daylight outside. However, on October 8th sunrise was at 07:39, and at 08:39 on November 1st. So the photos could have not been taken at the time reported. The photos themselves look like an out-of-focus piece of paper pasted on the window. We suspect a hoax.
1980, night – Holter, Nannestad
Another picture by Kjell Christensen. This time it is a time-exposure, enlarged photo of a moving light source leaving a streak of blue-white light. No data available except the photograph.
Probably another fake.

7 January 1980 – Sistranda, Frøya (UFO)
Bjørn Tore Valvåg had been skating on the ice together with a friend, and they were going home. They saw a big light at 45° elevation that seemed to be following them. After a while, when they had almost arrived home, it seemed that the light was in front of them. Bjørn then ran home and got his camera. The two ran up to a nearby hill and took two photos before the light disappeared behind the horizon. Nothing appeared on the photos when developed later. The observation lasted 55 minutes. No direction or time was noted in this report, so there is no way to evaluate the sighting, although the planet Venus did set at 19:15 in the SW that day. We do not know if it was a daytime or night-time event.
Insufficient information.

2 March 1980, 03:00 – Møre og Romsdal
A photo of the Moon where two other points of light to the right of the satellite appear. The light in the lower right of the picture is a reflection in the window. The anonymous photographer sent the photo to the newspaper (it was published on March 18th) along with a letter asking readers about the two other tiny lights. The photo was claimed to have been taken in the western sky, a Sunday in February.
However, the moon seems to be full and it was in that phase on February 1st. The nearest Sunday was February 3rd, but then the moon was in the south. It means the photographer was not sincere.
Consultants Victorio Uranga and Manuel Borraz found that on Sunday, March 2nd (full moon was one day before), the planets Jupiter and Mars were located in the same celestial position as the two light points in the photo beside our satellite, in the western sector of the sky.
10 or 17 July 1981, day – Aure, Nordmøre
A dark, oblong object was observed over Aure, and the newspaper staff photographer shot a photo. It looked like a “garbage bag filled with gas,” he said. Nothing is known about how the object disappeared. There is uncertainty about the date of the newspaper (July 23rd or 27th), so “Friday 14 days ago” may be either July 10th or 17th. Most likely explanation is a balloon.

30 July 1981, 14:30 – Sandefjord
15-year-old Lars Sperre spotted a dark object through a window. He estimated it to be at only 50 meters height, cigar-shaped with pointed ends, and about six meters in length. The boy ran upstairs to the second floor, from where he shot one photo (or two) before the object passed behind a nearby hill. The observation was reported in Sandefjords Blad on July 31st (which got the news the day before).
NIVFO submitted a press release on the observation, which was featured in many newspapers on August 18th. The explanation came from Leif Nylén on August 18th, precisely in *Sandefjords Blad*, where he told having seen the same object together with other people. He identified it immediately as a balloon. When seen through binoculars, Nylén could even distinguish yellow letters on its side.

12 November 1981, 19:45 – Strømmen, Arendal (UFO)

Note: In November 1981 strange aerial phenomena were observed night after night in the suburbs of the city of Arendal. It all began when a family at Strømmen, on the western side of Arendal, started to see UFOs every night, and finally called Hans Aass of UFO-Norge on November 8th. On that evening the family was on the porch looking towards the southwest where the UFOs appeared from the sea moving northwards. The light in the apartment was turned off. The planet Venus was low in the southwest and the first UFO was seen a little to the right of the planet, it flew up and down and in various other directions, as if performing some sort of irregular dance and flashed with a bluish, quivering light which varied both in intensity and color, sometimes blue/green and sometimes yellow/red.

The light was mostly weaker than that of an aircraft, but sometimes, after a series of small flashes, the light would become strong enough to illuminate the clouds above it and the ground below. The UFO then went towards the south and disappeared.

It later returned from the south-east and showed an unusually strong light which came towards the porch. The object passed at a distance of approximately 500-800 m and it was clearly visible. Above the object there was a dome which seemed to be lit from the inside by a yellow/white light. Beneath the dome there was a row of squares that looked like illuminated windows, although nothing could be seen inside them. Beneath the squares there was a circular or oval body, and below that a ring of red, green and blue lights which seemed to be rotating.

During the few seconds when the object was at its closest, the family could see a cone of light coming from the underside and tapering down and backwards in a curve.

Several other people also reported UFO sightings in and around Arendal during November 1981.

On November 8, 1981 sunset was at 17:19. The planet Venus then became visible, and set in the SW around 18:45.

The same day, three investigators of UFO-Norge (Hans Aass, Alf Thommassen, and Arne P. Thomassen) drove to the family at Strømmen, Arendal, equipped with binoculars and a good camera (*Minolta* XG-2 SLR, with 400mm lens). 15 photos were shot by Arne P. Thomassen (film roll A). Photos were taken towards the south and the southwest, between 19:00-21:00 (or 19:30-20:00 in another source). Of 15 photos made, nine captured light phenomena.

Thomassen also shot some photos of aircraft for comparison and reference.

Because of business commitments at the time, the team instructed the father of the family on how to shoot good night-time photos, and left the camera and equipment in his care.

Note: During the following days, this person shot 63 photos (film rolls B to E). All were shot with 5-10 seconds time exposure with a solid tripod and triggered with a cord. The photos were not shot at random but deliberately aimed at the lights dancing in the sky that had first been seen with the naked eye. One-third of the photographs were quite good, another third had the wrong aperture, and the remaining third was missed entirely since the UFOs moved out of frame just as the photographer squeezed the trigger.

18 November 1981, 19:45 – Vik, Arendal (UFO)

Film roll B was shot at Vik, West of Arendal, 19:30-20:30 (or 19:00-20:00 in another source). Why at Vik and not Strømmen? Apparently there was a “very exciting car-chase UFO hunt” involved…. Of 16 photos shot facing west, only nine captured light phenomena. Exposure time was 3-10 seconds. On the
original photos it is said some stars are also visible in addition to the light phenomena.

21 November 1981, evening – Strømmen, Arendal (UFO)
Film roll C was shot from Strømmen, Arendal. 36 photos were taken, of which 18 show light phenomena.

28 November 1981, evening – Strømmen, Arendal (UFO)
Film roll D was shot at Strømmen. Out of nine made, six present light phenomena.

1 December 1981, evening – Strømmen, Arendal (UFO)
Film roll E was shot at Strømmen, and only two photos were obtained.

Note: Of the 78 photos in total, 44 photos captured light phenomena. 14 of those 44 photos are especially interesting with varying shapes and colors. All photos were shot outdoors, never through any windows. The initial enlargements proved difficult since the interesting parts were only small points of light in a large dark sky. The published photos are all enlargements, at 16x/32x/64x/128x, of sections of the original photos. No detailed analysis has been done in order to correlate the lights appearing in the pictures with aircraft or astronomical sources. The scientific validity of this material is questionable.

A pending matter in this paper is to exactly recognize the dates of certain pictures from Arendal. Examples of photographs taken from November 12, 1981 to December 1, 1981 follow:
The newspaper received calls this night about a UFO in the sky above Hisøya, “definitely not a star.” The staff photographer went outside, and he saw a very bright light in the night sky himself. A photo was shot of the scene. They called up local experts who were able to quickly identify the stimulus as the planet Venus.

17 December 1981, 15:30 – Kjeller, Skedsmo
A black ball suddenly appeared in the sky towards the SSW. The object stretched out, changing its shape to more like a cigar, black and vertical. It continued to stretch farther down and grew more grayish. It was observed from Kjeller (by 10 people), Solheim, and Skårer. Several photos were shot by a newspaper photographer, one of which was published. That day there was no spacecraft re-entry recorded. Consultant Alan Pickup disclosed that the streak might be the shadow of an aircraft condensation trail falling on a layer of cloud.
**18 January 1982, night – Hessdalen, Holtålen**

A point of light moving across the sky seemed to tilt slightly up and down along its course. After a while these movements became steadier. Six time-exposure photographs (5 minutes, 3 minutes, and four at 30 seconds each) were shot by Nils Kåre Nesvold of the *Arbeidets Rett* newspaper. The photos show an object moving on a linear course across the sky with steady speed (the length of the image corresponds to the exposure time). The jagged movement appears to be caused by camera movement. The length of the light streaks also corresponds very closely to the speed of the natural rotation of the Earth.

No direction is mentioned, so it is impossible to correlate with any particular star. Sirius was visible that night rising from the SSE horizon and it is the most probable culprit, although it could have been any star.

![Image of light streaks](image.png)

**7 February 1982, 11:30 – Møsvatn, Vinje (UFO)**

Trygve Gøytil was driving by car to his cottage on Våmartveit in Vinje, on a road he traveled almost every week. At Møsvatn, he observed a shining ball of light that radiated beams. It was all shaped like a cross or a T. At first the light from the ball was faint, but then it shone stronger and stronger before it went out again. According to Gøytil the colors varied a little, mostly blue, but all the colors of the rainbow were present. The whole observation lasted three minutes, and during this time he shot three photos. There are no houses along this stretch of road. Two of the photos were shot from the same spot, with only a few seconds in between. These two photos show different colors on the sky and the snow. The sky was quite clear, and the temperature was -34°C.
11 February 1982, 19:36 – Hessdalen, Holtålen
Freelance journalist, photographer and author Arne Wisth initially went to Hessdalen as a skeptic, to write a quick piece about the UFO observations there. He later wrote a book about the phenomena in Hessdalen. A star came towards us and near the top of Røhovde Mountain, with a tremendous speed. The star was no longer a star, but an intense growing light source. Above the mountain top it suddenly stopped. Then it sunk slowly down along the top. I fetched my camera with 600mm telescopic lens to take a picture. The sight in the viewfinder was impressive. “It” was great. “It” was oval. “It” came just moving. Then it stopped short again. I had a strange feeling: It has caught sight of us! I pushed the releaser. Suddenly the object was gone. It was like someone pulling down a curtain. Jon Gisle Børseth was also an observer of this incident.

18 February 1982, 20:30 – Hessdalen, Holtålen
Arne Wisth was in Hessdalen again, and he observed and shot photos of a phenomenon, gliding slowly up the valley. It shone with a pulsating light with fascinating colors, disappearing to the north. Some 30 people also observed the same phenomenon from Fjellbekkhøgda Mountain.
18 February 1982, 20:50 – Hessdalen, Holtålen
Twenty minutes later, a long red-white luminous phenomenon appeared over the hill. It moved slowly away between Fjellbeekkhøgda and Finsåhøgda mountains, a few meters above the ground, being also photographed by Wisth.

March/April 1982, evening – Mo i Rana, Rana
Right before Easter, a lady came out of her house and saw a round ball in the sky. She thought it seemed unusual and called her husband. They fetched a small camera and shot two photos in a few minutes. The ball then disappeared. The case was later explained by NIVFO as a meteorological balloon.

Leif Havik wrote: On March 17th-20th, we were on a four-day expedition to Hessdalen. During this period we had six sightings and took four successful pictures, a yield with which we were very pleased. The first time it was 19:32 on the first evening. We had packed our equipment on a sledge, because none of us considered the possibility of observing anything that day. But suddenly
Lars Lillevold exclaimed: “There it is!,” and at the same moment we ran to the road which lay 25 meters ahead. There we stood, observing an oblong object that slowly passed in front of Finnsåhøgda Mountain. It was completely soundless, and it disappeared to the north. It passed in front of the mountain top at an estimated altitude of some 600 meters. Unfortunately, we didn't have time to get the camera equipment, packed on a sledge, into position before the object disappeared. Somewhat disappointed, we fetched the sledge and went to the Vårhusvollan mountain hut which was to be our base for the following days. After a while, we returned to Aspås Hill where representatives from the Norwegian Air Force and some newsmen had taken their position. At 20:39 “something” appeared in the north and passed above Finnsåhøgda Mountain towards the west. Some pictures were taken, but they turned out to show nothing. At 21:45 we returned to Vårhusvollan and spent some of the night watching stars, planets and a bunch of satellites. Several airplanes were also observed, on which our attention was focused, in order to compare their appearance with our UFO observations.

18 March 1982, 19:33 – Hessdalen, Holtålen
Leif Havik wrote: The next day was very successful. First we looked for landing prints in the area around Finnsåhøgda Mountain. Unfortunately, we found no traces, so we got to sleep a couple of hours in the early afternoon. At 19:00 we reached our observation site some 40 meters from the cottage at about 690 meters above sea level. Here we waited for about half an hour while we observed the sky above us. The planet Mars could be seen very clearly in spite of a few clouds and it was thoroughly observed, because an astronomer and a leading UFO skeptic in Norway had stated that it was the planet Mars which most people had seen as UFOs. In the meantime the clock approached 19:30 and we waited for the 19:30 “rush.” Suddenly, at 19:33, a light appeared in the sky in the south. We could see an oblong object with a constant red light at the front end, then a yellow-white light, a dark patch, and then a yellow-white
light at the back. It seemed to be quite near, but it was not easy to estimate the distance correctly. The “light” appeared clearly and distinctly, but it looked as if it was covered with something; it was a very strange light, or a light source which we were not accustomed to. After having watched the object for a couple of seconds, we began to shoot with our camera equipment. My colleague, Kai Johansen, had his camera mounted on a tripod, but I shot in hope of luck. I took a couple of pictures, with the shutter on 1/15 second, F/5.6 and a telephoto lens of 2x135mm – though I couldn’t see the UFO in the finder. In the meantime the object passed in front of Fjellbekkhøgda Mountain and a short while afterwards behind Finnsåhøgda Mountain. The distance to the object was about 2.7 km and it had an estimated length of about 25 meters. It passed with a low speed and could be seen for some 45 seconds. I am sure that its altitude wasn’t very great. One of the first pictures in this series became very successful.

18 March 1982, 19:33 – Hessdalen, Holtålen
Kai Johansen also shot photographs together with Leif Havik; see above.

18 March 1982, 20:03 – Hessdalen, Holtålen
Leif Havik took a photograph of a light phenomenon that appeared from the south and passed low over Finnsåhøgda Mountain.

19 March 1982, 19:38 – Hessdalen, Holtålen
Leif Havik wrote: On Friday, March 19th, at 19:00 we were at the same spot again. It was still a cold wind with a temperature of -12°C. Precisely at 19:38 there appeared a new “star” in the south-southeastern sky. Could it be a satellite? A point of light which appeared as an ordinary star made a slow movement in a northerly direction. After a while it assumed a “warmer” yellow-white color and it grew much larger, at the same time it seemed as if it flew low over the terrain. We shot some pictures, since the “star” passed in front of Fjellbekkhøgda Mountain on the same course as the other objects. During this observation we checked for any possible deflection on a compass, but with no reaction. Also, an Earth-magnetic detector was tested, but again with no result.

20 March 1982, night – Hessdalen, Holtålen
Jon Gisle Børseth recorded a 16mm film of the phenomenon.
30 March 1982 – Hessdalen, Holtålen
On April 1, 1982, the newspaper Arbeider-Avisa carried the following April Fools’ Day story: One of the luminous objects in Hessdalen has been identified. It is a spacecraft from an alien planet with creatures onboard. Sensational pictures shot by Magnar Kirknes at Hessdalskjølen confirm it all. Magnar Kirknes has been hiding in the mountains for several weeks now, waiting for the famous Hessdalen UFO. On the night of the 30th he achieved the photos every photographer dreams about. The alleged witness is said to claim: “I suddenly saw a bright object on the night sky above Finnsåhøgda. It came towards me and it made a perfect landing. I find no reason to describe the object. The photos speak for themselves. At 250 meters distance I could see what happened next. Out of the object stepped a creature, dressed similar to an astronaut. It went around the object, stopped, peed on the snow and re-entered the astronaut. Seconds later it rose and disappeared in the direction from which it had come.” The story continued with references to NASA, Erik Tandberg (national space authority), and the space shuttle Columbia. The story was also accompanied by photos of the alien creature and the spacecraft. Leif Havik of UFO-Norge went to Hessdalen to interview the local people there. Some of the locals had also initially believed the story. Havik later phoned the newspaper to congratulate them on a well-performed joke. Magnar Kirknes faked the photos by using a 60W light-bulb on which he drew some “windows”, and the creature was really a 5-year-old boy with a skiing outfit.

3 September 1982, evening – Hessdalen, Holtålen
During NIVFO’s visit to the Hessdalen Valley, an object was observed in the sky. At first it was believed to be a star, but it soon began to move and everyone present thought they could distinctly see the object approach in a zigzag movement. Pictures were taken with infrared film and sharp telephoto lenses, with different exposure times. They showed a jagged and faint rising movement, perhaps indicative of an astronomical cause.
Insufficient information (no date or time is known, and we have not seen the photographs).

25 September 1982, 19:00 – Hessdalen, Holtålen
One photograph was taken by Arne P. Thomassen from the south of Finnsåhøgda Mountain, looking towards the east, with a 400mm lens.

25 September 1982, 19:30 – Hessdalen, Holtålen
A light was seen just above Heggsethøgda Hill. In the background you can see Stordalshøgda Mountain. Two groups of people, located 2.5 km apart, saw this light at the same time. These two groups were in contact by walkie-talkie during the observation, and discussed the location of the light, while they were seeing the phenomena. When this picture was taken, the light was 2.5 km south-east of the observers which took the picture, and 3 km south of the other group of people (Erling Strand was in this group), which was located at Vårhuskjølen Hill. The light showed up at 19:15, and moved slowly around in the area for one and a half hours (until 20:45). During this time it was standing still for several minutes, to then move slowly to another location, standing still there for some minutes. It could move slowly around in the area. Sometimes a beam of light could be seen coming up and down from the phenomenon. The observers could see that the beam illuminated the ground beneath the light.
25 September 1982, 20:00 – Hessdalen, Holtålen
Arne P. Thomassen wrote: On September 25, 1982, at 19:50 the first UFO popped up in the south. It hovered low over the mountain and it shone and flickered. Because the object was motionless, I was able to take two pictures on time exposure (3-5 seconds); in that way I got the cliffs and a mountain crest in the background into the picture. It was overcast with a little wind. We had climbed Fjellbekkhøgda Mountain (1,078 meters above sea level) in the afternoon and settled down in a little cliff-ledge in the southern declivity. Four times we observed UFOs this night on three different locations. We took 81 pictures, some of which show the square shapes of the UFOs. At 19:50 the UFO-hunt took a dramatic turn. The object, which was flying to and fro over Lake Øyungen, suddenly began to use some sort of a spotlight. The spotlight was turned in every direction and illuminated the area where we were situated. My companion was frightened and threw himself to the ground; at just that moment the object turned away.

25 September 1982, evening – Hessdalen, Holtålen
Arne P. Thomassen wrote: One of the UFOs was seen by Arne Wisth, just in the act of descending through the cloud cover and illuminating it. But before he could reach his camera in the car, the object disappeared behind a hill. Notwithstanding this, a newspaper reported that Wisth took some 70 pictures!

26 September 1982, evening – Hessdalen, Holtålen
Arne P. Thomassen wrote: The following evening, however, Arne Wisth succeeded in taking a couple of pictures from Fjellbekkhøgda Mountain towards the east, towards that part of the mountains which lies about 7 km on the other side of Hessdalen.

October 1982, evening – Finnsåhøgda, Hessdalen, Holtålen
Photograph shot by Kurt Anderssen. He was located in Hessdalen, one evening during the winter 1982/1983, looking towards Finnsåhøgda Mountain. He used a 2,000mm lens and 400 ASA color slide film. He saw a yellow flashing light moving in the sky, coming above the mountain. The camera was on a tripod,
and Kurt directed the camera towards the light. He took a picture with some seconds’ exposure time.

1 October 1982, evening – Fjellbekkhøgda, Hessdalen, Holtålen
A moving light photographed by Arne P. Thomassen, while he was standing on the southern part of Finnsåhøgda Mountain, looking towards the east. The camera was a Minolta XG-2 with a Vivitar 400mm, F/5.6 lens. It was standing on a tripod and Fujichrome 400 slide film was used. The exposure time was 5 to 10 seconds.

1 October 1982, 22:44 – Hessdalen, Holtålen
Per Moen, of NIVFO, shot some 30 photos of a luminous phenomenon moving along the “regular route” above Finnsåhøgda Mountain. Through binoculars, the phenomenon looked identical to the one seen Friday, September 3rd, at 22:50. Unfortunately, the distance was too great, so the photos only show a small dot of light. This was seen from Hessdalskjølen, and many other observers were present. An interesting detail was that the phenomenon, or a similar one,
returned after approximately 15 minutes and seemed to follow the same trajectory in reverse.

14 October 1982, 02:03 – Alta
Photo used in Altaposten to illustrate an article dealing with a UFO sighting. The photo caption says: “It was in this area the luminous phenomena were observed Thursday night. The ‘UFOs’ in the picture come from the Altaposten photo lab.”

22 October 1982, 17:40 – Hessdalen, Holtålen
Arne P. Thomassen wrote: The next expedition started on Saturday, October 16, and ended on Sunday, October 24th. Its climax was on Friday. We had taken position early at our observation site, very heavily protected with warm clothes and equipped with a Russian mirror-telephoto lens with focal length of 1000mm in addition to an 8mm movie camera. This evening the phenomena began at 17:40, and we managed to get a lot of pictures. The object hovered motionless for a relatively long time over two small closed mines (zinc-silver-copper), and the direction was 89° in relation to magnetic north.

22 October 1982, 17:50 – Hessdalen, Holtålen
Arne P. Thomassen wrote: After some time, the object moved a bit and it was now accompanied by another one; in that way we got them on several pictures, both still and movie. We decided to send signals of light with a 50W halogen lamp we had brought with us. Just when I began to signal, one of the objects disappeared and shortly afterwards the other did the same. It didn’t seem they wanted to make a closer contact.

22 October 1982, 18:05 – Hessdalen, Holtålen
Arne P. Thomassen wrote: At 18:05 the objects returned and we managed to get some final pictures before we climbed down from the mountain.
22 October 1982, 20:20 – Hessdalen, Holtålen
Arne P. Thomassen wrote: At 20:20, when we carried our equipment indoors, an oblong object appeared. It flew low and soundlessly while it emitted blinking red lights from the edge. I listened for noise from a motor-plane, but there was none and I became suspicious. Two pictures were taken quickly through the 400mm lens.

25 October 1982, 19:00 – Finnsåhøgda, Hessdalen, Holtålen
A photograph was taken by Arne P. Thomassen from Finnsåhøgda Mountain, towards the east. The light was stationary during the exposure time of several seconds. 400mm lens and 400 ASA film was used.

6 November 1982, 18:30 – Hessdalen, Holtålen
A photograph of the “Hessdalen phenomenon,” taken from Vårhus. It was shot with a 750mm lens on a tripod.

December 1982, night – Hessdalen, Holtålen
Local eccentric Rolf D. Tønseth published a photo in the newspaper that was claimed to have been shot in Hessdalen during December. The UFO in the photo is described as saucer-shaped and yellow-green in color, with a red top. The newspaper described his photos as not sharp and therefore enlargements, but still “remarkably good.” The distance is also claimed to have been 100 meters! We consider this to be a hoax, as the man was at the time a frequent producer of alleged UFO pictures.
3 December 1982, 17:20 – Hessdalen, Holtålen
Freehand (no tripod used) photograph taken by Leif Havik.

4 December 1982, 17:53 – Hessdalen, Holtålen
Leif Havik observed a red ball-shaped phenomenon appear from behind Litlfjellet Mountain. He first thought it might be a signal flare from the nearby military exercise field, but later checked and there was no military activity on that date. The phenomenon was photographed towards the north.

18 January 1983, day – Bjaærangfjorden, Bodo
Hjalmar Hansen together with his wife was one of the first people to notice the seemingly strange object. It appeared to have landed on the mountain top: it was a central cylinder with three or four legs, reflecting the rays of the sun. The Air Force was notified by local people as well as by the press, and it scrambled an F-16 jet to the area (later in the day, a helicopter was also dispatched). The pilots were stunned to see a rocket-shaped object on top of the mountain, complete with three landing legs, brightly reflecting the rays of the sun. As they got closer it resolved into an ice-coated trigonometric beacon used for mapping purposes, and therefore appeared to be unusual from a distance.
22 January 1983, 13:30 – Rislamoen (UFO)
Helene Østgård, together with her grandchildren, observed a glowing object appear from behind a nearby hill. Her grandchildren, who were playing outside, said the object made a crackling sound. The phenomenon was oblong and appeared to have “arms.”
The photo shows only a blob of light against a dark background. Insufficient information.

Winter 1983, night – Hessdalen, Holtålen
Arne P. Thomassen took this photograph while the camera (400mm lens and 400 ASA color film) was standing on a tripod during the exposure time of some seconds. A yellow light was moving irregularly during the exposure, leaving a yellow trace on the film.

Winter 1983, night – Hessdalen, Holtålen
Leif Havik took a time-exposure photograph a light. But it disappeared so fast that the observer did not see the end of it. After the film was developed, the photographer realized that he actually managed to capture the disappearing movement of the light, as a streak of light was registered on film.
**12 February 1983, 08:15 – Seljord (UFO)**
Retired carpenter Arne Bekkevold observed a mysterious flying object floating towards Kviteeid. It didn’t look like a parachute or anything else he had seen before, it moved horizontally or just a little diagonally downwards. It couldn’t be an aircraft with condensation trail either, since the object moved slowly. It was definitely a physical object with trailing smoke. His wife found a camera and binoculars, and Bekkevold shot some photos, but by then the object was too far away to be registered on film.

**12 February 1983, 17:53 – Litlfjellet, Hessdalen, Holtålen**
Two pictures were taken by Leif Havik. In the first photo you can see the northern part of Aspåskjølen Mountain. The light moved towards Litlfjellet Mountain following the Hessdalen Valley. The second picture was taken just before the light disappeared behind the mountains in the eastern part of Litlfjellet. The direction was south. It was a very foggy day, and the clouds were low down on the mountains. Sometimes snow was falling.
March 1983, night – Hessdalen, Holtålen
After local eccentric Rolf D. Tønseth published his first photos in the newspapers in January 1983, he offered more photos that were claimed to have been shot in Hessdalen during the first week of March. They were allegedly shot with a 200mm telephoto, and a time exposure of five seconds. The photographer claimed to have seen similar photos in American UFO magazines. He claimed he saw a luminous triangle for several minutes before it disappeared, and it was rocking sideways with the pointed end downwards, like a pendulum, at the same time it was moving in a wavy fashion.
Arne Wisth didn’t believe the Tønseth photos and went public: the photos do not fit their descriptions, i.e., a triangle is described as being luminous, yet the photo shows it dark. Also, it they were time-exposed, images would look differently, because of the claimed motion. Tønseth insisted he didn’t fake anything. He claims to have achieved approximately 25 UFO photographs.
We consider this to be a hoax because of all these internal inconsistencies. We even believe it is likely the photographer got guiding ideas to create the images from a UFO booklet by Ted Wilding-White & Kenneth Garland (published in Norway in 1978).
In August 1984, the Verdens Gang newspaper published a UFO photo, shot by Pål Kristian Vaag one year before: I called my mother to come outside to see what was hovering close to our courtyard, but unfortunately she didn’t, and there was no one else at home. The distance to the space ship was 150-200 meters. I heard no sound – everything was absolutely silent. Suddenly the color of the object changed from bright silver to dim gray, and it rushed as if it was kicked by somebody. Vaag thinks the object must have been 10-15 meters in diameter. He definitely declares the picture is genuine. I’m not at all interested in photography, and I have no idea how to make such a forgery, he says.

The newspaper followed up the story on the following days, with news on the developing investigation. Experts were consulted at the Air Force Base at Rygge, as well as at SINTEF/NTH (now NTNU, University of Trondheim), yet VG failed to provide assistance to NIVFO researchers. Jan S. Krog and Bjørn Erlandsen managed to interview Vaag, who was in his basic army training at the time: I was sitting on the doorstep outside the house, tying my shoelaces, when an object came down the hillside in the southeast. I ran into the house to fetch a camera. But I was a bit paralyzed. My brain wanted me to go, but my body would not. I managed to take only one picture of the object. At first, the light had a metallic color, later it changed into grayish. I had just moved the camera from my eye when the object disappeared with a jerk into the mist, in an easterly direction. The whole observation lasted for about two minutes. I felt deeply surprised during the whole observation. Before I fell asleep that evening, I was lying awake a very long time, as I was thinking over the observation. I think the object was a space ship, either from space or from the Earth, preferably from space, Vaag told the investigators.

Finally, on February 20, 1985, Verdens Gang announced (again on the front page) that the UFO photo by Pål Kristian Vaag was a fake. SUFOI had sent the photo to GSW (an already defunct US UFO organization which first applied computers to photographic analysis, which techniques were later very much criticized). GSW analysis showed the object to be a suspended model. When Vaag was told of the findings, he confessed the hoax.
26 September 1983, 03:00 – Ås
Kai Remi Jensen’s neighbor called his attention to the appearance of a luminous object, one that disappeared and re-appeared successively for 4 hours. It appeared to rotate and move about with different speeds, and sometimes appeared to be metallic. Jensen got his camera and shot a few photos of the object.
Venus rose in the eastern sky at around 03:45 and continued to rise to 24° in the ESE horizon until sunrise came at 07:08. Clouds and atmospheric haze can cause stars and planets to “appear and disappear” and false motions are due to scintillation, auto kinesis and atmospheric refraction.

29 September 1983, evening – Justøya, Lillesand (UFO)
Arne P. Thomassen had several UFO sightings both on the 28th and the 29th. He compares these sightings to the sightings in Arendal during 1981/1982. About 50 slides were shot on the 29th.
There was only a short news item in a newspaper, no photos have been seen, and no further details are known. Insufficient information.

21 October 1983, 00:30 – Longyearbyen
A photo published in Svalbardposten showed a coal power station with two “UFOs” to the right of the building chimney. However, the image is just a pair of lens flares.
Autumn 1983, day – Valdres (UFO)
Marit Semeleng and her husband were on a berry-picking trip. She had just shot a few photos of the landscape with her Kodak 224 camera, when a bright light flashed above their heads. It was as bright as the sun, and she reacted almost automatically when the object stopped for about four seconds, and shot a photo of the object. It disappeared after only 5-6 seconds, so fast that her husband didn’t see it at all. She didn’t even manage to call out to him before it was gone. It was completely soundless, and the color was intensely white.
A few years later, she delivered the photo negative to Fagernes Lensmannskontor (Police Office at Fagernes), who in turn sent it to Forsvarets Overkommando (Defense High Command). Semeleng received a letter some time later stating that there was a flaw in the negative. The negative was never returned from the police/military.
The negative being unavailable, it is not possible to reach a final conclusion. Insufficient information.
December 1983 – Hessdalen, Holtålen
According to the press, NRK journalist Ingar Øien took some photographs of the Hessdalen phenomenon during the month of December.

1984 – Aspåskjølen, Hessdalen, Holtålen
A photograph taken during the Project Hessdalen fieldwork during 1984. One of the participants of the fieldwork used one of the cameras standing outside the main headquarters at Aspåskjølen. The camera was mounted on a tripod and it had black and white film. The picture shows one moving lights in the northwest, just above the horizon of Finnsåhøgda Mountain.

1984 – Aspåskjølen, Hessdalen, Holtålen
A photograph taken during the Project Hessdalen fieldwork during 1984. One of the participants of the fieldwork used one of the cameras standing outside the main headquarters at Aspåskjølen Mountain. The camera was mounted on a tripod and it had black and white film. The picture shows two moving lights in the northwest, just above the horizon of Finnsåhøgda Mountain.
21 January 1984, 18:05 – Aspåshøgda, Hessdalen, Holtålen

Note: Project Hessdalen started on June 3, 1983. On August 27th it was presented at the BUFORA's 3rd International UFO Congress in England. During the following autumn, a research program was established and on November 19th, the project was presented to the people in the valley. During the first part of January 1984, an information bulletin, describing the project and attaching a simple report form, was sent out to 3,300 households in the Hessdalen district. The fieldwork for Project Hessdalen Part 1, with all the instruments, went from January 21 to February 26, 1984. Fieldwork started with a "test weekend", Friday to Monday, January 20-23, 1984. This weekend should be a training session for Part 1 of project. During the test weekend about 22 persons were present. From then up to February 10th, there were from 1 to 5 volunteers. During the main project term, February 10 to February 26th, the number of volunteers was 12 on average. The people in the field were divided in three groups during the test weekend. Some were at the headquarters in Aspåskjølen Mountain, some in Finnsåhøgda Mountain, and some in Fjellbekkhøgda Mountain. For a short period, some people were at Heggset, too. During the main period, from February 11th to February 26th, people were divided in three groups, but now the field-stations were at Hersjøen and Litlfjellet. The headquarters was still at Aspåskjølen Mountain. The headquarters was a caravan, equipped with a set of scientific instruments, including camera with gratings, seismograph, radar, spectrum analyzer, magnetometer, laser, Geiger counter and IR-viewer.

At 18:05 on January 21, 1984 a red/silvery blinking light was sighted to the south direction; it turned out to be two objects. Seen visually and on radar from the headquarters at Aspåskjølen Mountain.

21 January 1984, 19:22 – Aspåshøgda, Hessdalen, Holtålen

A yellowish object from the south passed the observation posts. Distance was less than 1 km, its altitude some 700 meters.
21 January 1984, 21:20 – Aspåshøgda, Hessdalen, Holtålen
A series of flashing lights appeared over Litlfjellet Mountain. They kept on flashing from time to time during the evening and night.

22 January 1984, 01:50 – Hessdalen, Holtålen
Flashing lights above Litlfjellet Mountain again, almost like electron blitz to look at, never twice in the same place. Some red lights were also observed beneath these flashes.

22 January 1984, 19:22 Hessdalen, Holtålen
Photos were taken between 19:20 and 19:25.

22 January 1984, 19:44 – Hessdalen, Holtålen
A light (very similar to one observed at 07:22 on the previous day) appeared from the south. There were variations in speed and height.

23 January 1984, 19:20 – Hessdalen, Holtålen
Some more flashing lights photographed above Litlfjellet Mountain, at the same place and a little farther north.

23 January 1984, 19:25 – Hessdalen, Holtålen
Some more flashing lights photographed above Litlfjellet Mountain, at the same place and a little farther north.

25 January 1984, 19:10 – Finnsåhøgda, Hessdalen, Holtålen
A yellow light, as bright as the planet Venus, stood motionless a couple of minutes in the southwest, 20 degrees over the horizon. Suddenly, it started to move towards the north. Arne P. Thomassen took three pictures with a camera with grating and mounted on a tripod. Just after he took the shots, the light suddenly sped up and disappeared behind Fjellbekkhøgda Mountain.
28 January 1984, 15:49 – Finnsåhøgda, Hessdalen, Holtålen
Observation on radar between Finnsåhøgda Mountain and headquarters (less than 500 meters apart). It was not visual, but several pictures were taken in that direction. Distance to echo: 463 meters. Duration: 10-12 seconds. Speed: 1,620 km/hour. The blips were approximately 1/3 larger than the echo from a single-engine aircraft.

2 February 1984, 20:11 – Hessdalen, Holtålen
Leif Havik wrote: I was sitting at Jon Aspås' home, drinking coffee, when the telephone rang. It was the neighbor giving this message: “It's coming now!” The phone had hardly been put down, when it rang again. This time it was Lars Lillevold on Vårhus who had seen “it.” From this moment on, everything happened very quickly. I literally jumped into my shoes and “dived” outside, grabbing a camera on the way, equipped with a 400mm lens – it being my only “weapon.”

A well-lighted, oblong object with yellow-white lights and a red one in front was traveling north. A series of photos was taken, but unfortunately without a support. It is therefore uncertain as to whether they will turn out good. The time was 20:11 and there were nine witnesses in total at three different locations.

8-15 February 1984 – Hessdalen, Holtålen
According to the 1984 Project Hessdalen Technical Report, Leif Havik took photographs marked 7 to 32. Many of them are described as a “lightst” (a streak of light made on the picture, because of the long time of exposure). Only one “case” is considered by us. If there is a reliable record of actual dates, times and images, we request that the photographer come forward with it, in order to improve the present catalogue of UFO-like phenomena in Hessdalen.

11 February 1984 – Hessdalen, Holtålen
According to the 1984 Project Hessdalen Final Technical Report, a photographer code-named as “H001” took eight pictures of lights and “lightst” (a streak of light made on the picture, because of the long time of exposure) from February 11th to 12th. Only one “case” is considered by us. If there is a reliable record of actual times and images, we request that the photographer come forward with it, in order to improve the present catalogue of UFO-like phenomena in Hessdalen.

15-17 February 1984 – Hessdalen, Holtålen
According to the 1984 Project Hessdalen Technical Report, Leif Havik took 20 photographs from February 15 to 17. Various lights and “lightst” (a streak of light made on the picture, because of the long time of exposure). Only one “case” is considered by us. If there is a reliable record of actual dates, times and images, we request that the photographer come forward with it, in order to improve the present catalogue of UFO-like phenomena in Hessdalen.

17 February 1984, 18:05 – Lake Hersjøen, Hessdalen, Holtålen
The report written by Ove Lövgren, reads: At 6:05 pm Ove Joakim Karlsson and Dick Ekenhage went up to the observing place. They came from the cottage. When they were 150 meters from the cottage, they saw a light on the
west side of Hersjøen. At 6:15 pm they made some filming and took some pictures. At 6:25 pm they thought it was a cottage, because it hadn't moved. Joakim thought he saw two flashes from the light, but they went on up to the observing place. At 7:30 pm, a yellow light came, which was two lights close together, from the western part of Hersjøen. It went to the northeast, but changed direction, and went right towards us. We took photos. When Joakim called on the walkie-talkie, it took a couple of seconds and the light burned out. The light was about 600 to 1000 meters from us, when this happened. Nothing more was seen and no sounds could be heard, even when it was close to us.

The Project Hessdalen 1984 Final Technical Report adds: When we study the local map, we see that there is 3 to 4 km from the observing place to the mountain on the western part of the lake Hersjøen. If they used that distance as a reference, the distance they indicated where the light burned out might be correct. It was the same light as Joakim and Dick saw between 6:05 and 6:25 pm that moved at 7:30 pm. The report was not clear on that point. They looked at this light often during the interval from 6:05 to 7:30 pm. The film they took shows only a moving light. No other reference is in the movie. So we can't be sure if the movement is caused by the light movement or movement of the camera.

18 February 1984, 20:18 – Aspåskjølen, Hessdalen, Holtålen
A strong light appeared, just over the horizon in the east. It was slowly moving horizontally to the south. It was slowly “flickering”: it gradually became very strong, and then it gradually became very weak. Again, it became strong and weak and so on up to five to six times. Each time, Roar Wister managed to take a picture. These pictures have a very good quality, compared to what we could expect under such circumstances. The phenomenon’s display ended at about 20:20 hours.
19 February 1984 – Hessdalen, Holtålen
According to the 1984 Project Hessdalen Final Technical Report, Leif Havik took 15 photographs marked this day, both daytime and nighttime pictures of lights and “lightst” (a streak of light made on the picture, because of the long time of exposure). Only one “case” is considered by us. If there is a reliable record of actual times and images, we request that the photographer come forward with it, in order to improve the present catalogue of UFO-like phenomena in Hessdalen.

21 February 1984, 19:20 – Hessdalen, Holtålen
According to the 1984 Project Hessdalen Technical Report, from January 21st to 22nd, Erling Strand took 13 photographs of lights and “lightst” (a streak of light made on the picture, because of the long time of exposure). Only one “case” is considered by us. If there is a reliable record of actual dates, times and images,
we request that the photographer come forward with it, in order to improve the present catalogue of UFO-like phenomena in Hessdalen

21 February 1984, 19:23 – Aspåskjølen, Hessdalen, Holtålen
A photograph was taken by Roar Wister with an exposure time of 10 seconds. The aperture was F/5.6. Camera used was a Pentax ME Super with a Vivitar zoom lens with a range of 75-205mm, adjusted to 75mm. Just after the picture was taken, an oscillation could be seen. The frequency was 7 Hz. It then increased in amplitude, until the light went off. There was a plane in the same direction some minutes before this light was seen.

26 February 1984, 03:08 – Lake Hersjøen, Hessdalen, Holtålen
Bjørn Lagesson, Bjørn Thyselius, and Gøran Ohlsson were on location at the field station at Lake Hersjøen. Two spectral pictures were taken by Bjørn Lagesson. The observers wrote in their report: We were on location, drinking coffee, when Gøran saw a flash of light. Twenty seconds later he drew my attention to it. The light showed up again and it had an intense brilliance towards us. I run to the cameras and managed to take three pictures during the 3 minutes of observation time. During the first seconds the light pointed at us, some seconds afterwards it pointed straight down, then “the spotlight” turned around in a half circle towards us. I got the impression it was standing still. Suddenly, the light turned off.
July 1984, day – Otta, Sel (UFO)
During 1995-1996, UFO-Norge received some photos from a woman. The photos show landscape and sky, with a dark spot or something in the sky. It is not known if this was seen by the photographer or not, and no further information is available. The negatives were thrown away during moving between houses.
Insufficient information.

18 July 1984, day – Oslo
A newspaper article says that several people reported seeing an oval saucer-shaped object glide slowly down Grorud Valley in Oslo. The object was visible both to radar and to the eye for several minutes. After five minutes it just disappeared. It must have either dissolved or gone away with an incredible speed. The object came gliding slowly along the valley, and was plainly visible in the clear weather. The sun reflected on a shiny metallic surface while it banked carefully as if to change direction. I ran inside to get the camera and shot a photo right before it disappeared, Eivind Sjåstad is quoted as saying. The article also refers to one Rolf Forbo from Norsk Ufologisk Forening. Both of these people are non-existent, and the photo is a crude hoax (a montage).
August 1984, day – Hamar
Two boys, Per Olav Sanner and Ole Kristen Øverberg (both aged 12), are sure they have seen an unidentified object in the sky. The boys were at home, and suddenly the phenomenon appeared in the sky. They boys were quick to get the camera, and shot a photo of it. *There was very bright sunshine around it...and after a few minutes it disappeared*, they said.
The photo shows a dark banana-shaped object, with no details, and no reference points.

August 1984, day – Hamar
Two months after the previous photo appeared, another one, this time by Peter Elverhøi (also age 12) was published in the same newspaper. This time the photo shows a dark saucer-shaped object, with no details, above a few rooftops. Assisted by a journalist from the newspaper, UFO-Norge representatives discovered that both were hoaxes created by pasting a piece of paper to a window. In fact, the two places are located just a few hundred meters from each other. It is not known if Elverhøi made it jointly with Sanner and Øverberg or not.
10 August 1984, day – Fredrikstad
An article in the *Fredrikstad Blad* newspaper about GSW analysis methods pertaining to UFO photographs, contained a faked photograph to illustrate the simple technique used to forge one.

4 September 1984, 20:11 – Hessdalen, Holtålen
A bright light phenomenon was spotted in the direction of Lake Øyungen. Photos were shot until the light disappeared at 20:34. Through binoculars the phenomenon looked like a high pointy fire, like a burning cabin.
6 September 1984, 21:39 – Hessdalen, Holtålen
A blue light phenomenon appeared in the SE and photographs were taken. Some panic ensued when the spectral camera film got stuck. A new roll of film was put in, and the light was still there. At two occasions a fast light was moving next to this phenomenon. The blue light phenomenon didn’t disappear until 06:00, approximately.

December 1984 – Voss
In the period between December 1984 and May 1992, Gunnar Pedersen, a man living at Voss, recorded almost 600 sightings of unidentified flying objects. Voss is a village located some 100 km east of Bergen. He forwarded reports of his sightings to UFO-Norge. In fact, members of this organization were present at Voss in two occasions when alleged UFOs were being observed. The simple verdict was that the man (and in later years, also a young companion) continually interpreted ordinary airplanes as “UFO crafts.” Due to this, UFO-Norge took no more steps to further explore the sightings, since they are useless. Nevertheless, the main witness accused UFO-Norge of neglecting the value of the reported phenomena. Early in 1992, this organization received a video cassette, containing several shots of an alleged UFO. This was analyzed by Erling Strand, who concluded that the lights in the recorded video could have been anything. The lights lacked points of reference (i.e. surrounding landscape, background, etc.), hence no distance, dimensions, or speed could be determined.

12 December 1984 – Northern Norway (UFO)
According to the Finnmark Dagblad newspaper, a pilot took a photograph of a UFO. No further details known.
Insufficient information.

30 December 1984 – Hessdalen, Holtålen
Arne Wisth has independently pursued the elusive lights of Hessdalen for years. This day, in the course of a one-man expedition to the valley, he obtained two photographs. Prints and the original negatives were furnished by Wisth to Dr. J. Allen Hynek, of the Center for UFO Studies. In spite of the fact that these represent the same object taken just a few seconds apart, the marked changes in the pictures were described as “striking” by Dr. Hynek.
6 January 1985, day – Hallingby, Ringerike
A photographer shot a photo of the church at Hval, in Hallingby, and after development a dark spot in the sky appeared to the left of the church steeple. Newspaper text says the negative has been investigated and no film flaw has been found.
We consider this image to be caused by a drop of water on the camera lens.

29 January 1985, 17:39 – Hessdalen, Holtålen
Note: Project Hessdalen Part 2, an extension of the project originally held for January-February 1984, was carried out from January 13 to 27, 1985. Three observation sites were in use during the project period. Headquarters was installed in Hammarkneppen (700 meters above sea level, at the northern side of Åspåskjolen), field station 1 at Finnsåhøgda Mountain (1,046 meters), and field station 2 at Rognefjellet (917 meters). Lots of equipment and measuring devices were transported in by snowmobiles (two spectrum analyzers, radar, seismograph, magnetometer, three VCR’s, three video cameras, laser, IR-viewer, about 20 different cameras, and more than 10 tripods), and a total of 30 people devoted at least one week of their time to the investigation. Most of the people were from UFO-Sverige, as well as UFO-Norge and UFO Research of Finland – a truly Scandinavian co-operation.
During the entire period, approximately 220 sightings of identified phenomena (aircraft, satellites, etc.) and approximately 55 sightings of uncertain origin (possibly aircraft without corresponding sound) were made. No positive observations were made, due in part to rather bad weather.
Photographic records during Part 2 of the project. 38 black and white film reels were taken, and 20 movie films (super 8 mm) were also shot. Although each reel of still photographic film had a capacity of 20 pictures, very few observers managed to fully utilize this capacity. Part of this photographic record has to do properly with the “Hessdalen phenomena,” another involves staff, general panoramic views and equipment.
At the end of Project Hessdalen Part 2 (January 27th and 28th), all equipment was dismantled and most of the personnel left the area. Leif Havik, Mariann Överström, and Björn Lagesson were the only three people remaining, equipped with their own photographic cameras. They stayed until February 10th, at Hammarkneppen, the site of the former Headquarters.

An orange ball of light shining intensely to the northwest, did hover motionless for about 30 seconds. First they thought it was a signaling light (hanging from a parachute) estimating the distance to be rather short. Later, rifle shots were heard and one more light was observed and photographed. Conclusively, they found out that the lights originated from a civilian guard training center in Haltdalen some 10 km away, towards the NNW. This of course implied that the distance first assumed was grossly underestimated.

29 January 1985, 20:13 – Hessdalen, Holtålen
An object appeared from the south at the speed of an airplane, traveling the customary airline route towards the north. However, no sound was heard, and for this reason Leif Havik took four photographs. One of them also included the planet Venus, as the object passed apparently in front of this celestial body. Additional witnesses: three other persons situated at Aspåskjølen. Observation time: 3 minutes. Meteorological conditions.: a clear sky, temperature -9.5°C, with a northerly breeze.

29 January 1985, 22:21 – Hessdalen, Holtålen
An airplane (confirmed) traveling towards the south was observed and photographed to be used as a comparison to the above 20:13 observation.

6 February 1985, 18:53 – Hessdalen, Holtålen
A weak dark yellow-orange colored light was observed on the eastern side of Rognefjellet Mountain. The object was seen by Leif Havik and Björn Lagesson and it reappeared four times at the same spot. The event was photographed (four pictures), but we have not seen the resulting pictures. Total time of observation: 17 minutes. At the same time the moon (NE) and the planet Venus (SW) could also be seen, located in different positions with regard to the UFO. Meteorological conditions: half clear sky, temperature: -10°C, northwestern breeze. The next day Leif Havik went to Rognefjellet Mountain to check for possible snowmobile tracks, but saw none in the area.

7 February 1985, 22:10 – Hessdalen, Holtålen
An object traveled southwards, three minutes after an airplane had passed to the north. Both Björn Lagesson and Leif Havik photographed it.

16 April 1985, night – Hessdalen, Holtålen
Another photo shot by Gunnar Senbom, commercialized then in the form of postcards for sale. Apparently large, meaningless enlargements, no further details are known. Insufficient information.
19 May 1985, night – Hessdalen, Holtålen
Another photo shot by Gunnar Senbom, according to his postcard series. Apparently a large, meaningless enlargement, no further details are known. Insufficient information.

September 1985, night – Vinstra (UFO)
A 9-second long video clip shot at Vinstra by Michel Marcel in either 1985 or 1986. No written report exists, and no further details are known. The video itself shows no reference points, only a dot of light moving erratically against a black background, one that could have easily been produced artificially. Insufficient information.

13 July 1986, 00:50 – Torpo, Ål, Hallingdal
The night between Saturday and Sunday, July 12-13, 1986, the married couple Tova and Torfinn Tonning, together with their son Christer and some friends, were enjoying the fine Nordic summer night. The location was the Breiset Mountain Farm near Torpo in Hallingdal. Suddenly, at 00:50, they realized that Mrs. Tonning was staring out the window, and asked why she was so astonished. She said: Look at the light up there! Now it has ascended from the horizon and moved across two crossbars in the window!
They all moved outside the house, and Torfinn Tonning could finally use his video camera after having battery problems. With the camera fixed on the car roof, he directed the lens towards the phenomenon, which was located in an east/northeast direction somewhere in the distance.
In addition to using the camera they also had the time to observe the phenomenon with a pair of 12x binoculars. With it, they could observe clearly discernible details. The object looked oval at the top and bottom. Three clearly separable circular lights were situated in the middle. The object appeared to be illuminated by the three lights, which had a blue-white color. Simultaneously, Mr. Tonning observed some flashes of light coming downwards to the ground from the object. 10 to 12 flashes could be seen in each burst, evenly distributed in time. These blinks resembled those of a flashgun. Furthermore, the object spewed out rapid sparks of light on each side; this particular phenomenon being especially clear and distinct.

An important feature regarding the object’s movement, is the tilting at an angle of approximately 45° (with both sides alternately shifting position), together with the apparent maneuvering towards and away from the witnesses. Moreover, ups and downs, more or less combined with sideway sliding, altogether gave a complicated pattern of movement. After some time, it descended to a hill, permitting both the object and parts of the landscape to be visible in the same video frame (although this feature couldn’t be recognized in the subsequent analysis). After a short while it ascended so abruptly that Mr. Tonning was unable to keep pace with his camera.

Gradually, Mr. Tonning became aware of a second object just as he and the others were observing the first one. The latter was located just opposite the first, in a west/southwest direction, and had a stronger (i.e. more color-saturated) red-white hue. However, because this object seemed to be at a much greater distance (it was considerably fainter), the appearance on the video was of a rather limited duration and quality. It was observed for a relatively short time, leaving the witnesses to study the first object more closely.

The video film lasts for about 10 minutes. The actual observation lasted to around 3 o’clock, i.e. for more than two hours. Both objects disappeared at a great speed at an angle to the horizon. Before disappearing, the main object became smaller and smaller, thus indicating a gradual withdrawal along the line of sight.

When Mr. Tonning replayed the videotape on his recorder at home, he was rather disappointed at first. The image of the phenomena captured by his camera didn’t appear quite as impressive as the actual observation through binoculars. The video camera was equipped with a zoom lens with 6x magnification. However, when using the recorder’s stationary image option, many of the details became visible again.

Weather conditions were fairly good; a cloud base at 1,500-2,500 meters, varying in extent from 1/8 (almost clear sky) during the evening of July 12th to 8/8 (completely overcast) on the morning of July 13th. Visibility was 75 km or more.

Early in 1987, the video was sent to William Spaulding’s Ground Saucer Watch, in the United States, via Australian ufologist Paul Norman. GSW reported that there were no reference points in the video and also that there appears to be little ‘object’ movement. The motion is attributable to camera movement caused by the photographer. At one portion of the filming the ‘object’ is partially obscured. This could be attributable to clouds moving in front of the ‘UFO’, and finally that the anomalous light streak is evaluated as a video artifact. The obscuring of the light is consistent with the weather conditions. At midnight, the planet Jupiter was rising in the east, reaching 19° in the SE by
03:00. Directly opposite (180°) was the star Arcturus, descending from 32° at midnight to 10° at 03:00. The apparent magnitude of Jupiter was -2.62, while the apparent magnitude of Arcturus was -0.07. We consider the whole sighting to be compatible with the apparition of the planet Jupiter (the first object, the object filmed on the videotape) and Arcturus (the second object, observed visually only).

24 July 1986, day – Norway
Knut Aasheim shot a photo showing sailboats on the water, as well as two small black objects in the sky, that were not seen at the time. [After this paper was finished, we found out that this picture was actually taken on the west coast of Sweden, at 12:30 hours, and it probably shows birds.]

Summer 1987, evening – Horten
Øysten Johnsen was taking some photos of the ferry to Bastøy, in the Oslofjord, from Horten. There was a nice, red background sky. When the photos were developed, one showed a dark elliptical object in the sky above the ferry. We consider this to be a bird in flight.
19 December 1988, 02:30 – Kragerø
Kamran Baramfarsi (age 22) was listening to some music at home that night, when he saw a luminous object coming at high speed from the south-southeast (*faster than a jet plane*), stopping for 2-3 minutes over the fjord to the east, then speeding away again as fast as it had come, towards the north-northeast. Kamran said the object was without any sound, and estimated its size to be 12-15 meters in diameter.

The photo shows a bright object in the night sky, with some landscape in the lower part of the photo. The bright object is elongated, either because of time exposure photography or due to camera movement.

According to journalist/photographer Egil Mathisen, the photo also has street lights at the bottom, and the shapes of these and the bright object in the sky, are identical. Therefore, he concludes, the photo is that of the Moon. The elongated shape is because Baramfarsi moved the camera, and this is evident since the islands in the background also have a “shadowy” appearance. It also appears the moon is casting a reflection in the sea.

In various newspaper articles, the date is given as the 18th or the 20th. The moon was visible in the western sky at this time. However, in one newspaper article, Baramfarsi says it was a clear night, with stars, and no moon.

It seems obvious that an attempt at deception is involved in this story, and that the photo shows the moon.

January 1989, day – Vestby
Photo published on January 19th, said to be shot “a while ago” by Trond Erik Hanssen. Photographer insists he photographed a flying saucer, while it is simply a lenticular could.
30 January 1989, day – Smøla
Photo of a bright cloud on the morning of Monday 30\textsuperscript{th}. It shows a noctilucent cloud illuminated by the sun just before sunrise.

1990, day – Norway (UFO)
Two photos (from a video film?) showing a white dot in a blue sky. Some trees visible in the lower part of the pictures. No other details known. Insufficient information.
2 July 1990, 15:00 – Tromøya, Arendal (UFO)
Leonard Tønnesen was out in his boat, together with his son-in-law, coming back from a fishing trip. The son-in-law then spotted a luminous silver ball in the sky. Tønnesen was at the time filming with his video camera, and directed it towards the object. The object seemed to be planning to land, it stopped, Tønnesen zoomed in on it, zoomed out again, and the object sped away towards the sea. Alf Thomassen, who was ashore, observed the same object. The video has not been seen by the authors of this paper, so we are unable to evaluate it.

Summer 1990, evening – Gussiås, Molde
Three photos were shot by a man (aged 45-50) at Gussiås, 40-50 km from Molde. According to the report, the man and his daughter (in her 20s), observed a bright object “dancing” in the overcast sky. The three photos were shot in less than a minute. We wonder if it was the moon seen through cloud cover?

1991, day – Hauglandslia, Bergen
No report accompanied this photo. It was just published to illustrate how easy it is to fake UFO photographs with a suspended model.
10 January 1991 – Kabelvåg, Vågan (UFO)
Odd Bjørn Hjertø (age 10) saw three lights that were flashing, 100 meters away. He estimated their size to be about 20 meters, like a jet plane. He ran the 400 meters home, to notify his mother and get a camera. The object followed him and then took off. A photo was shot, but then the object was too far away and nothing turned out visible.
On the same day, 60 km away, another observer also saw a similar object – a dark object with 40 synchronous flashing white lights and 25-30 red lights. Another couple also saw it, and the wife experienced headaches and vomiting afterwards. During the observation she was totally deaf (although her hearing was fine prior to and after the observation).

4 February 1991, 18:55 – Bergen (UFO)
From January 16th to approximately February 10, 1991, the newspapers (and the UFO-Norge organization) received 30 UFO reports from the Bergen area. On February 4th, Johannes Rolland and Sølvi Irene Hagebø observed an object with red, green, and white lights hanging in the air over Herland, Bergen. It moved towards Blom in Osterøy, then stopped for 30 seconds at a height of 200-250 meters, before moving on. It stopped again, at 300-400 meters from their home. No sound was heard. Rolland shot two photos, before the object started moving and disappearing towards the northeast. The object is described as a belt of red lights, two larger white/green lights above, and a white light below a half-round shape.
4 February 1991, 23:11 – Bergen
Video recording of a soundless phenomenon above Trengereid, northeast of Bergen. The video itself shows no details other than the phenomenon itself. This was identified as an aircraft landing at Flesland airport.

25 March 1991, 19:50 – Herøysund, Kvinnherad (UFO)
A couple observed a bright light outside their living room window, and they went out on their porch. The bright light was gone, but they saw two flashing lights. One was white and the other was red, and they flashed 3-4 times per second. The object was moving slowly. Then the bright light was there again, and the flashing light could not be seen. The light is described as yellow-white, like burning magnesium. The object was moving in zigzag course out the Hardangerfjord, and no sound was heard. When seen through 8x40 binoculars, there seemed to be “something” between the flashing lights. It disappeared behind a mountain top and after it appeared again it disappeared straight up as the lights went out.
Three photos were shot when the distance was approx 500-600 meters. The photos were shot without tripod and they are very hazy. In the pictures, a streak of light is visible above the treetops.

3 August 1991, 01:30 – Svergjesjøen, Nord-Østerdalen
Three women observed two luminous oval shapes which moved slowly in the sky for a couple of hours. It was Bodil Gerxhaliu (29) who saw the light first. She was playing cards with Elisabeth Herrebrøden (38) and Kristine Haagaas (38) late at night. They went outside the cabin, and none believed her own eyes. It was a large luminous oval shape – of the size and shape of four full moons stacked together in a line, which blinked with even intervals. Over this oval there was a light point which changed in color from red to yellow-white, the women said. Elisabeth had a video camera, and she directed it towards the point where the oval flashed up intermittently. She managed to get one flash recorded, before the battery exhausted. It is typical that such a thing happens when it’s most critical, she said. They also managed to take some photographs of the phenomenon.
Erling Strand interviewed Mrs. Bodil Gerxhaliu just a few days later. He got a written report on the incident, together with 4-5 photos of the phenomenon and
the environment. The report corrected some prior information given by the press. Exact place of observation was near Lake Svergjesjøen (868 meters above sea level). The phenomenon was still visible when the women went to bed at 03:30. The phenomenon was initially discovered in the northwest (azimuth circa 315°), and during the next two hours it moved slowly further north (azimuth circa 350°). The elevation was estimated at 30° for the large flashing oval, and 40° for the accompanying red/yellow-white light source. Their relative positions were fixed during the entire observation.

The flashes from the oval came at 2-9-minute intervals; duration of each flash was from a split second up to three seconds. The video was shot at 02:50 and shows one flash before the battery was discharged. Later on, when this recording was replayed in slow-motion, the flash resolved into two distinct flashes. A short-lived, point-like light source could be seen in the center of the last flash. A short crack in the sound channel could be heard simultaneously. Unfortunately, the video didn’t show any points of reference, which might have indicated size and/or position of the phenomenon.

One of the photographs, taken at 02:40, showed a reddish, diffuse light source, together with a white, more concentrated light beside. Unfortunately, the photo was taken without the use of a tripod or any other support. Hence, the images were smeared to a large extent. In addition, no points of reference could be traced.

The distance to the phenomenon was loosely assessed by Mrs. Gerxhaliu to be at least a couple of kilometers. No sound could be heard at any time, nor did they have any aftermath – no physiological and/or psychological effects.

Due to the fact that the women were alone, they assumed that no others had witnessed the event. However, it turned out that Mr. Øystein Emanuelsen, a farmer living in Dalsbygda (some 40 km ENE) observed two flashes of light at 00:45 the same night. The direction was due west (azimuth 270°), and the time between flashes was some 20-60 seconds.

We consider it very likely that the four witnesses observed atmospheric electrical discharges, i.e. lightning, 12-15 km or more away.

**October 1991, 03:30 – Songe, Arendal (UFO)**

An anonymous person called the newspaper to report she had observed something that looked like an eight-sided luminous football low in the horizon. She observed the phenomenon until it disappeared into the horizon. The sky was full of stars, but this was not a star, she said, because it was much brighter. She attempted to take some photos, but they were not developed yet, so it is unknown what, if anything, they showed.

Both planets Jupiter and Venus were in the east horizon around 03:30, but they were rising, while Sirius was in the southeast. Was it astronomical? Insufficient information.

**1992, day? – Norway (UFO)**

A photo showing something dark gray against a gray background. No text report or further details exist.

Insufficient information.
May 1992 – Voss
In the period between December 1984 and May 1992 a man living at Voss (Gunnar Pedersen) claimed to have recorded almost 600 sightings of unidentified flying objects. Voss is a village located some 100 km east of Bergen. He forwarded reports of his sightings to various members of UFO-Norge, particularly the report center. However, representatives from the organization were present at Voss on three occasions; two times they actually observed the alleged UFOs. The simple verdict was that the man (and in later years, also a young companion) continually interpreted ordinary airplanes as UFOs. Due to this fact, UFO-Norge has taken no steps to further explore the observations, since they are of virtually no value. Nevertheless, Pedersen accuses UFO-Norge of being passive and neglecting both him and the reported phenomena, which according to him obviously have a great potential for further investigation. Early in 1992, the report center received a video cassette containing several shots of the phenomenon. After analysis (by Erling Strand), the conclusion was that the lights shown on the video could have been anything. The lights lacked points of reference (i.e. surrounding landscape, background, etc.); hence no distance, dimensions or speed could be determined.

7 September 1992, 23:55 – Hammarøy, Harstad (UFO)
Just before midnight, a large light was seen in the sky above Hammarøy near Harstad. The light seemed as large as the moon, but was flat. The phenomenon brightened, then darkened, and finally it brightened again before disappearing. The distance was estimated at 150-200 km. The wife of a photographer shot some photos. The photos have not been seen by us. Insufficient information.

21 September 1992, 21:30 – Eksingdalen, Masfjord (UFO)
The Gullbrå family (Nils, Lillian, Jon Ingvar, and Albert) had a strange experience this evening. Nils, his wife and their eldest son were in the living room. The TV was on. Suddenly their dog and two cats went crazy (the dog was also in the living room, their two cats were outside on the porch). Nils went outside to see what was going on. Nothing could be seen, so he went around to the front side of the house. From there he saw a strange column of light in the distance. Then I understood we had strangers visiting us. Nils called his brother and asked him to bring his video camera, but the resulting image was too dark and faint. Nils used binoculars the last 10 minutes of the observation, and saw some red lights appear. The column of light was sharp yellow-white and pulsed with a frequency of 30-35 per second. The column of light went out and the lights disappeared in a southerly direction at a speed of approximately 1,000 km/h. The size was estimated to be 300-350 meters.
29 January 1993, 11:50 – Voss
Another aircraft video shot by Gunnar Pedersen.

26 May 1993, 00:15 - Kyrksæterøra, Hemne
Oddbjørg Bakk and Leif Aunhaug observed a luminous object low on the horizon, just above a nearby hill-top. It looked like the full moon if it had split in the middle. It also seemed to move up and down while slowly moving to the right. The color changed between orange-red and white. It grew gradually weaker for a while, before disappearing completely. The whole observation lasted 40 minutes. No sound. Clear weather, 0°C. Five photos were shot with a Konica C-35 camera with 38mm lens, speed 1/60 second. Sunset was at 22:49 hours, so there was still some daylight remaining in the sky. The planet Jupiter was at 18° in the SW at 00:15, descending to 15° at 00:55 (magnitude -2.22, bright enough but too high). The planet Mars was at 15° in the west at 00:15, descending to 11° at 00:55 (magnitude 1.31, too dark). But the moon was at 6° elevation in the WNW horizon at the beginning of the sighting and at 2° elevation in the NW at the end, posing as a very good candidate to explain the case. The problem is that its phase seems too early to provide this image. We wonder if the pictures were really taken a few days later.
2 or 3 July 1993, 01:20 – Rørholt, Kragerø (UFO)
After returning from a fishing trip, Jan Arne Ekkeren and a friend of his, had just come back to a cabin. Suddenly they saw a triangle of light appeared approximately 15° above the horizon. A minute later two more formations appeared. They all had an insane speed. During the next hour they observed another nine formations, each consisting of three lights, with a total of 36 objects. They excluded the possibility of both ball lightning and falling stars. The next night, from 03:30 until 04:40, the same phenomenon repeated, and they observed a total of 37 lights in sequential formations. They estimated the speed to be 3,000 to 6,000 meters per second. The formations were only visible for 1-2 seconds each time. The phenomenon was also seen through 8x40 binoculars. Ekkeren also shot some photos, either on the 2nd or the 3rd, or both. We have not seen these photos.
Insufficient information.

9 November 1993, 20:00 and 21:00 – Hadsel (UFO)
This covers three observations, at 18:59 lasting five-six minutes, at 20:00 lasting five minutes, and at 21:00 lasting three minutes. It all started with the observer discovering by chance a large white circular light, as big as the moon. It came in from the sea, just a few meters above the fishing ships in the harbor. She first thought there was someone searching for something. She was blinded by the light and went out on the steps to see better. The distance was approximately 150 meters. She was still blinded by the light, so she couldn’t see if the light had wings or not. There was no sound at all. She thought it was strange that an airplane could travel that low and slow, without engine noise, and not fall into the sea. The light then changed course, and turned to the right. She could then see that the object was oblong with pointy ends and somewhat thicker in the middle. A quarter of the front body was illuminated, the rest was dark. The object started to rise, and at the same time the color of the light changed from white to yellow to orange and then to red. She thought she had seen a new type of aircraft.
She phoned a few relatives to tell them about this, and regretted she didn’t have any other witnesses to the event. So she went to get her camera, in case the light should return. And at 20:00 it did. A red-orange luminous cigar-shaped object appeared flying from the south and illuminating the area like a neon light. The contours could easily be seen against the dark sky. The phenomenon was thicker at the middle and resembled the first object when that one had disappeared. It seemed larger than the first object. It disappeared behind an island, re-appeared on the other side, and disappeared behind a mountain towards the west. She managed to shoot four photos from outside her house. At 21:00 she spotted the light for the third time. This time it was green, at the same height as before, and moving from north to south. The green light had a dark body behind it, but she could not discern if it was pointy or rounded. It looked like a rocket. This phenomenon was also without sound, and moved at the same speed as the others. She shot several photos from outside her house. Nothing appeared on the film when developed.

**19 November 1993, 17:08 – Voss**  
Another video taken by Gunnar Pedersen. It is considered to be an aircraft.

![Image]

**20 November 1993, 13:00 – Kvam**  
Magnar Hagen was on his way up Veikledalen Valley at Kvam, approximately 90 km north of Lillehammer, when he saw something moving down the side of the valley, from north to south, in a flash of light. He grabbed a **Polaroid** camera from the back of his car, and managed to shoot one photo before the light disappeared. Looks like a chemical flaw in the film.
December 1993, 00:30 – Heistadmoen, Kongsberg (UFO)
According to a newspaper article, Lars Olav Iversen photographed a strange phenomenon, when he was with Ann Helen Hansen. They observed some bright lights in the sky, red lights rotating and joining to other mushroom-shaped lights.
The reproduced photo is of low quality, and it is impossible to decide what it shows or could be. Insufficient information.

3 January 1994, 00:30 – Rakkestad (UFO)
A few days before or after Christmas 1993, Ng Hyng Lyng observed a bright luminous object in the sky. It was his eldest daughter who first saw the light at 01:30 hours.
The next night they spotted the light was January 3rd at 00:30. It was his eldest daughter again who saw it first. Ng Hyng Lyng brought his video camera outside and started filming. The video is 4-5 minutes long, showing a single point of light against a background of dark sky. Reportedly seen towards the east, it appeared to flicker quite a bit, and the camera was apparently not on a tripod as it appeared very unsteady to the journalist who reported the case. Lyng’s video camera has an 8x zoom, and on his 26-inch TV, the light appears to be from _ to 1 cm in diameter.
We have not seen the video in question, so we do not know if it contains any points of reference. Sirius (as well as the moon) was visible in the SE, at 12° elevation. An on-the-spot inquiry can confirm or eliminate this possible explanation by determining the exact direction of the UFO.

Insufficient information.

27 January 1994, night – Hessdalen, Holtålen
Bjarne Lillevold, who was with his son, filmed a phenomenon above Finnsåhøgda Mountain.

21 March 1994, 05:30 – Harstad (UFO)
Several people observed a strange phenomenon in the northeast sky. It was visible for almost an hour before it disappeared or was obscured by clouds. Wemunn Aabø shot several photos around 05:30. When developed, they showed a small point of light, and also three small black dots. These black dots appeared in different areas of the various photos.
The newspaper source published only one of the photos, highly enlarged. The star Vega was at 46° elevation in the east (azimuth 102°), and Capella was at 29° elevation in the NW (azimuth 329°). But if the phenomenon was really seen in the NE, none of these stars fits.

4 April 1994, 01:15 – Vivestad, Ramnes/Re
Amateur astronomer Jan Qvam sent UFO-Norge some photos he had shot, two of the planet Jupiter and two of the northern lights. In one of the photos of Jupiter, the planet appears very much larger than in the first photo. The probable cause of this was a drop of water on the camera lens. This could also have been caused by a time exposure, even if the stars appear more or less the same, since Jupiter is much more luminous than the surrounding stars.
Photo number three shows a dark saucer-shaped form silhouetted against the northern lights in the background. The fourth photo, taken a few minutes later, shows the same scene but the dark object is revealed to be a cloud as it is dissolving.
Late April 1994, day – MS Lofoten
This photo was shot from the deck of the merchant ship Lofoten. It goes on a regular cruise from Bergen to Kirkenes (six days) and back to Bergen again (five days), with several stops along the way. It is impossible for us to know exactly where the ship was, specially with an imprecise date.
The photo shows a strange phenomenon, not seen at the time, looking a little “rocket”-like. We had the negative investigated, and it was soon obvious that there was a flaw on the film itself.
21 July 1994, 24:00 – Skåbu, Nord-Fron

The witness reported: I was looking out the window, when suddenly a yellow half-moon-shaped light rose up from the mountain. The light was quite intense. Outside this luminous ball was a yellow-orange halo. I had no idea what this could be. The sun had set in the opposite direction a while before. The Moon was not visible yet, even though it was clear weather. After a while the light moved down and behind the mountain to the right. Then it came back with high speed (the ball was getting smaller) and moved in a zigzag way to the left while going up, and then sort of exploded and disappeared.

He managed to take a photo of the phenomenon. And on the photo we can see the mountain is in several places in this photograph, and the light is reproduced as a streak of light. This is the result of the photographer moving the camera as he took the photo.

He watched the sky the next night as well, and all he saw was the full moon, but not in the same direction as he had seen the prior phenomenon.

The sun set in the NW at 22:12. The moon was in the S-SE (10° elevation, 172° azimuth at 23:59 on July 21th, if this is the right day of the event). Consultant Andrés Duarte analyzed the picture and concluded that the object is a static point of light placed at the edge of the mountain. A ground source of light on the terrain or just the moon that was right over the edge of the mountain.
7 August 1994, evening – Saltrød, Arendal
Kurt Åsbyørn Olsen, together with many other neighbors, observed a luminous ball of light traveling slowly across the sky. He got a video, and it was featured on the TV2 evening news. The footage showed points of reference as well as the small luminous ball of light. Much speculation resulted from the “bat-like” image produced when he zoomed in on the object (this is a normal effect, caused by distortion in the camera optics).
The next day, TV2 news provided the viewers with the explanation. It was just a balloon – a plastic bag with some wires and candle lights that was sent aloft from a birthday party.

15 September 1994, 12:35 – Hessdalen, Holtålen
Photo shows some landscape and a dark object in the blue sky with some clouds. This is most likely a bird in flight.
1995 – Norway
A photograph was received by UFO-Norge in 1995. It shows a landscape scene with a bridge over a river and some mountains in the background, and an overcast sky. In the middle of the photo there is a triangle-shaped white “object.” It appears to be a lens flare.

1995 – Gausdal
A fake photo by Kjell Christensen.

22 February 1995 – Hessdalen, Holtålen
An orange ball of light was seen by three people, moving from south to north. The phenomenon was captured on a video that we have not seen. Insufficient information.
27 May 1995, 01:20 – Norway (UFO)
A video recording of a point of light against a dark sky background, approximately 7.5 minutes long, without points of reference. We do not know in which direction this was shot, or from which location, so this is impossible to correlate with anything. The planet Jupiter was visible in the south at 8° elevation and 177° azimuth.
Insufficient information.

29 May 1995, 18:35 – Stavanger
A passenger on flight BU278 from Bergen to Stavanger shot this photo shortly before landing at Stavanger Airport. This is a flight that takes some 35 minutes from lift-off to landing. BU278 took off from Bergen at 18:10, and this photo was shot 10 minutes before landing, so we estimate time at 18:35. The passenger saw something pointy sticking up through the layer of clouds, and shot a photo out the left window of the aircraft, towards the east.
During 1996 Odd-Gunnar Røed was giving UFO lectures to workers on the oil rigs in the North Sea. After showing this photograph to the audience, a Mr. Roger M. Jensen returned from the library with the December 1995 edition of Offshore Engineer. Here’s your UFO, he said, and showed Røed a photo of Saipem 7000. This is a crane vessel, a ship that is specialized in lifting heavy loads. The Saipem 7000 was the world’s largest crane vessel up to year 2000, reaching 220 m height (almost twice the height of an oil rig), and it is usually docked just north of Stavanger. No wonder then that its two peaks were visible through a low cloud cover.
13 July 1995, 13:00 – Evje (UFO)
The Andreassen family (four people) was driving north towards Evje, followed by Elin Solstad (42) and her husband in another car. They all saw a cigar-shaped object with no wings or tail, traveling parallel to the road, disappearing behind trees every now and then. The color was grayish metallic. Some times it seemed to stand still, and at other times to speed up. They finally found a place to stop by the road, and the object was then about to go behind a hill. John Gunnar Andreassen (40) quickly reached for his video camera. He had just got the camera ready, and started filming, when there was a flash of light and the cigar-shaped object disappeared behind the mountain. The only thing visible on the video is the flash of light lasting 1-2 seconds. Elin Solstad thought she had seen several flashes as the object disappeared. The video has not been seen by the authors. Insufficient information.

15 July 1995, 04:00 – Lakselv, Porsanger
15-year-old Kjell Ivar Simensen was outside shooting landscape pictures. After they were developed, he discovered a fuzzy dark object in one of the photos. We suspect this is an insect close to the camera.

18 August 1995, 08:00 – Madlatua, Stavanger (UFO)
This morning, Kjell Aksdal suddenly saw a strange object flying in the sky. He got his video camera and started filming. The video lasts 2.5 minutes. Ten minutes later Aksdal saw the object again, but only for a few seconds. The video was shot through the living room window, and it has been described as showing a cylinder-shaped object. According to the source (a newspaper article), the object was stationary at first, then accelerated violently to the right and to the left, and then made a circle. It is not clear if the video shows any points of reference, and if the motion is that of the object or is caused by the camera movements. The video has not been seen by the authors. Insufficient information.
16 November 1995, 21:45 – Solund
Freddy Indrebø was taking a stroll this night. The weather was clear and cold, with a starry night. Suddenly a light reflected on the wet asphalt in front of him. He turned around at once and looked at the sky, and he saw a bright flash of light, like a fireball with a red core. It lasted only a few seconds. After walking farther along for a few minutes, he heard a powerful detonation. He thought the sound must have come from the light phenomenon, and if so he estimated the distance to be approximately 100 km.
At the same time, Finn Hugøy was experimenting with taking photos of the night sky (50 ASA film). He shot a photo of the western sky at 21:45 hours, exposed for 30 or 45 minutes. The photo shows the stars as diagonal streaks, but something else (vertical) was also captured by the camera. The image of the stars corresponds to what the sky looked like at the time.
We consider this to be a fireball entering the atmosphere.

27 November 1995, 22:30 – Klæbu
Solveig Trolie (27) and her boyfriend Per M. Langrød saw a light above Vassfjellet at Klæbu, a big yellow-white ball of light with no sound. First it was stationary for 1.5 minutes, then it started to move, at first slowly with no sound, then faster with sound. Color changed between red, green, and white. It seemed to move in a southwest direction, then towards the north, and in the end towards the northwest. Solveig Trolie shot some photos of the object, both when it was stationary and when it was moving. The camera was a Pentax 70 with 100 ASA film.
It is likely this was an aircraft, as there was an aircraft in the sky at the time, coming in from Bergen and landing at 22:39 hours.
6 January 1996, 14:30 – Tromsø
N.K. took three photos of the red sky, and in one of the photos an irregular white spot appeared after development. She would have ignored it if she hadn’t seen a mysterious light herself that same day, some 1-1_ hours later. When we checked the negative it was clear this was a developing flaw produced from some dust on the negative. Later prints from the negative showed no white spot anymore.

17 January 1996, 18:00 – Sandnessjøen, Alstahaug
A ball of light appeared in the sky, and there were several witnesses. Siv Dalen videotaped the phenomenon.
Sunset was at 17:11 hours, and shortly after that the planet Venus became visible in the south.
13 February 1996, evening – Oslo
TV-channel NRK1 news at 22:30 showed a video recording of the western sky, taken from Oslo. First it showed a relatively weak light in the distance, against a dark sky, and then it zoomed in on the light. A little later an aircraft could be seen taking off from Fornebu Airport. NRK1 news said the light was stationary, but by fast-forwarding it could be seen to move slowly towards the west.

13 February 1996, evening – Kristiansand
TV-channel TV2 news at 24:00 also reported on the same video as above. In addition, they showed another recording from Kristiansand. The second video showed a black sky with a light above, with some houses in the lower part of the image. UFO-Norge contacted the two TV stations to inform them about the explanation (the planet Venus).

23 February 1996, 22:50 – Hessdalen, Holtålen
Jan Barwin and Andreas B. Olsen were on a trip to Hessdalen to see if they could see the phenomenon by themselves. At approximately 22:50, Andreas spotted a light blinking in the south, low on the horizon. Through a telescope, Andreas Olsen observed it as a white pill-shaped object. It was stationary at first, with a blinking white light on the right side. A few seconds later it started moving in relation to the stars, and it descended in an even speed, before it stopped again. Then Jan Barwin observed the stationary object through the telescope, and it started moving towards the left, and then stopped once more. When Andreas Olsen was going to watch it again through the telescope, it was already gone, and they couldn’t find it again. They had a 20x50 telescope, i.e. 20x magnification and 50mm lens. Photographs of the phenomenon were taken during their sighting.
Sirius was at 9° altitude and 194° azimuth (almost south).

1 July 1996, day – Valdres
Erlend Wiborg (12) and his classmates were on a trip to Valdres. Many photos were shot during the trip, and on one of these a black spot appeared in the sky. Nothing unusual was seen. The photo shows a few people walking along a track, with landscape (mountains) in the background, and a blue cloudless sky. The photo was discovered because of his experience of August 30, 1996 (see next case).
We suspect a butterfly or other insect close to the camera.
30 August 1996, 21:00 – Våler (UFO)
This day, Marianne Bruheim, one of Erlend Wiborg’s classmates, had a birthday party. A camera was available and a few photos were shot of the party and the 10-12 guests. Erlend and another friend went out on the veranda on the second floor to get some fresh air. They were standing there talking, when suddenly a strange phenomenon flew past them only 5-10 meters away. It was about as big as a car, and flew at the same height as the flag pole outside. The object moved very fast, and was visible for only two-three seconds. It was blue with a red stripe across the middle, round at one end and pointed at the other. And there was sort of a yellow shine around it all, says Erlend Wiborg. They went inside to tell the others what they had seen. Needless to say, no one believed them. Five minutes later, however, they all saw it again. A little farther away, behind some trees, they saw some flying objects. Similar in form to the first one, these were not colored but luminous all over. They came and went, until four objects could be seen at the same time. The camera was fetched and several photos of the objects were shot. Also, while the children were watching the objects, three cars stopped on the road near where the objects seemed to be, and after about 10 seconds they drove on. When developed, all the photos on the film were blank.

21 September 1996, 15:00 – Bjoreidalen, Eidfjord
Rune Grønstøl sent a photo to UFO-Norge, showing people rowing a boat on a lake, landscape and a blue sky with some clouds. There was also a small dark spot in the sky.

Seen through a microscope, the negative displays some irregularities, the film layers appear to be contaminated, which caused the flawed image.

7 August 1997, 23:30 – Lake Øyungen, Hessdalen, Holtålen
Arne-Johan and Pål-André Rauan tell this story: At 23:30 we suddenly saw a phenomenon in the sky. It looked like a big star, which moved rapidly. It came from the south, moving towards the north-east, and it disappeared over the horizon. We did see a similar phenomenon at 00:30 the same night, but this
started when a plane was coming. It moved fast towards the east. The speed was too high to be a plane. We filmed the phenomenon with a VHS Sharp video-camera for about 5 to 10 seconds.

27 August 1997, 22:45 – Florø, Flora
G.B.S. was at the restaurant outside Quality Maritim Hotel to take some photos of the moon. Later, when the photos were developed, she noticed a “second moon” in the photos. Moonrise was at 00:22 on the 27th, so the time must have been somewhat later than the photographer thought. Anyway, it seems like a typical lens flare.

1-15 September 1997, day – Levanger (UFO)
Sometime between the 1st and 15th of September, Lillian Olsson shot two photos of a phenomenon she and her husband observed low on the NNE horizon. The phenomenon was seen for about 5-7 minutes, while it slowly moved towards the northeast (from left to right in the photos) and then disappeared. The light was oval-shaped and was intensely yellow in the middle. Around the yellow, almost fluorescent light, there was an orange corona.

11 October 1997, 21:15 – Morkevollhøgda, Hessdalen, Holtålen
Note: The Triangle Project was a group of people (students, engineers, and journalists) who did observational and photographic field work in Hessdalen in 1997-1998. The group consisted of Werner Anderson, Henrik Th. Strøm, Vidar Andersen, Andreas Olsen, Erling Strand, Akhtar Issak, Gisle Førsund, Vidar Lovlund, and Lars Færeveag.

Andreas Olsen suddenly saw a strong light slightly to the left of Morkevollhøgda Peak. The light seemed to come from the point where “the mountain met the sky.” Both Akhtar Issak and Andreas Olsen first assumed that it was the moon coming up over the mountaintop, but they soon realized that they had observed the moon much farther to the east earlier in the evening, and this light was much more intense than the light reflected from the moon. Akhtar
pointed a flashlight with a red filter at the phenomenon, while Andreas notified both Alpha and Charlie camp positions (unfortunately, the sighting fell outside the Triangle area under close surveillance).

Akhtar shot a series of pictures (see comment below) when the light started to move up and down “like a yo-yo.” The light had the shape of a pyramid and was emitting an intense light. Each time the “pyramid” went down under the horizon (the mountain top) they could see a beam of light coming up from behind the mountain, from the point where “the pyramid” had disappeared. This repeated several times before the light went down for the last time and “went out.” The observation lasted for 15-30 seconds. The light beam had a wider dispersion than any car headlights. The light source was bigger and more intense than any other light that was observed from Bravo camp position. To the observers, it looked like the beam of light was directed towards Bravo each time “the pyramid” emerged from behind the mountain (probably a subjective illusion, since it was observed only from this position). The crew calculated the distance from Bravo to the light to be one kilometer. No sound was heard during the observation. The local map shows no paths or roads in the area where the light was sighted. At 10:35 pm the moon appeared again, still at the far east of Morkavollhogda. The eye-witnesses stated: Neither of us can give a reasonable explanation of what we saw.

It turned out later that the film showed no trace of the light. Field researchers deliberately tried to underexpose the film, as most pictures of the Hessdalen phenomenon suffer from overexposure, and it is not possible to analyze what is “inside” the lighted spot on the films. This time they went too far in the opposite direction.

11 October 1997, 23:45 – Morkavollhøgda, Hessdalen, Holtålen

Akhtar Issak pointed out a red light west of Lake Øyungen. Andreas Olsen thought that he had seen the light one minute earlier, but he was convinced that it was the taillight of a car. When Akhtar caught sight of it, he came to the same conclusion. The light was traveling westward away from Bravo at a rather high speed. Akhtar then studied the light through the 200mm lens of his camera. He saw that the light changed color from red to yellow, and was moving towards Bravo very quickly. For Akhtar, the light source seemed to be very big, it completely covered his field of vision through the camera lens, and he was completely blinded. When the object shifted from red to yellow, Akhtar started to shoot with his camera. The light moved back and forth over Øyungen before it disappeared in the south. Immediately after the light disappeared “behind Morkavollhøgda,” the western part of Lake Øyungen was illuminated as by an enormous spotlight. The line between the light circle and the dark surroundings was well defined. “The spotlight” was not in sight, but it seemed like the light was emitted from a point behind Morkavollhøgda Mountain where the light ball had just disappeared. In the middle of Lake Øyungen there is an island (Storholmen). This island was not visible in the dark, but as “the spotlight was turned on,” we could clearly see the whole island, even details such as trees. This was also the case for the western shore of the lake. “The spotlight” searched the western part of the lake, while it “was turned on and off.” The light was enormously intense. The next part of the observation was by Akhtar Issak alone. As he studied the dark surface of the lake through his camera, a light
circle formed on the lake, between Storholmen island and the southwestern shore. The light was bluish, like burning gas, but not so intense. It resembled more the northern lights that are often seen in this part of the country, but far from lightening the sky, this light seemed to be emitted from a submerged source. Both Andreas and Akhtar checked the sky for northern lights, but it was heavily clouded, and no reflection from the sky was visible on the lake. The “submerged” light slowly vanished. Akhtar tried to shoot some photos of the phenomenon, but the light was too faint to expose the film. Both Andreas and Akhtar noticed that only while “the spotlight” was illuminating Lake Øyungen, some small, compact fog “globes” came drifting from the lake towards them, wrapping up the camp for approximately one minute as they passed by. Both members of the Bravo crew experienced this last observation over Lake Øyungen as dramatic and frightening. The camera was mounted on a tripod, equipped with a motor, and the time between each exposure was less than 1/2 second. He used a 200mm lens, of 5.6 aperture, and shutter speed 1/125 sec. The distance to the light was estimated at 3 km.

20 November 1997, 22:00 – Levanger
Quite a lot of people gathered together around the town of Levanger this night to observe two mysterious circles of light in the sky which rotated around each other at high speed. Many people shot photos of the lights. Later in the night it was found out that they were two searchlights from a party.

22 November 1997, 22:40 – Bjørga, Hessdalen, Holtålen
Günther Schnell, Gard Gramstad, and Ann-Cathrin Morteng reported: We have been in Hessdalen with some equipment, from 21st to 23rd, trying to see the Hessdalen phenomena. We did see it! We had 3 observations for certain and a couple that could have been something else. One observation lasted 5 minutes and we managed to capture it on our video. It was not earthlight, car light, or aurora borealis. We saw a soundless object, with a white light at the top and two red lights beneath. It had a normal speed, like an "airplane," until it
started to move jerkily and go downward following a line like the steps on a stair. It moved like this until it disappeared behind Granåshøgda Mountain. This object was diffuse in the beginning, but shortly after the light became sharper. It looked like it was looking at us. It could be at about 100 meter above the mountain ridge before it went down behind the ridge.

15 December 1997, night – Bergen
Several people in the Bergen area phoned police and newspapers about lights moving in the sky. Rotating beams of light as well as circles of light were reported. Police finally established that it was all caused by searchlights from a local supermarket.

3 January 1998, 22:38 – Lake Øyungen, Hessdalen, Holtålen
At 21:00, Günther Schnell, Gard Gramstad, and Ann-Cathrin Morteng went to Aspåskjølen, and at 21:30 they saw some irregularly-flashing light towards the southern part of Hessdalen. Lights were within the mountain fog. It looked like the light moved towards the west. This observation lasted for 5 minutes. They remained in the same place until 22:15, when they decided to move to Lake Øyungen, south in Hessdalen. While driving towards the lake, they saw a big blue light coming up from behind the mountain in the west. It moved very fast, made a 180° turn, and went down behind the mountain again. It lasted 2-3 seconds. Later on, they were walking by the lake area and saw a light behind the trees. Günther Schnell writes: We ran up the hill and got a good view down to a small valley. There, 400 to 500 meters from us, a red light was hovering.
No sound could be heard. The light was in front of the hillside, on the other side of the small valley. We could see that it was an object with a shape like an oblong triangle. The red light was on that object. We saw this for about two minutes. It moved from left to right in a jerky movement. It disappeared behind the mountain at 22:40. Looking at the “light” in my camera, the color was more orange. I managed to take two pictures, but sadly, that part of the film was destroyed. It looked like it was overexposed.

14 February 1998, 20:00 – Moss (UFO)
Several people in Østfold observed a strange light in the western sky during Saturday night and into the early hours of Sunday. Britt Kirsten Pedersen was one of those who saw it: I discovered the light around 20:00 and went out on the veranda watching it. The light was incredibly beautiful. It was white, sometimes with a greenish tint. She got her camera out and shot some photos of the light. Several neighbors also saw the light, among them Susann Linnerud. Theories put forward by Jan Erik Hansen (lighthouse keeper at Færder) said it might have been the light from the lighthouse reflected through the clouds. Usually multiple-observer cases suggest that conventional explanations exist, although no particularly bright planet was visible in the western sky at that time. We have not seen the photos in question. Insufficient information.

16 February 1998, 17:30 – Fredrikstad
The time was 17:15 when sports journalist Morten Andersen observed a streak of light in the sky. He ran upstairs to the 5th floor of the newspaper office to get his camera. But by the time the film was placed on it, the streak of light was gone. However, it returned again at 17:30. Then, photographer Geir A. Carlsson shot a photo of the phenomenon. The streak of light moved south. Flight leader Jack Schanke at Rygge Airport said it was probably a temperature inversion reflecting the sun. However, the photo looks like a normal aircraft condensation trail to us.

April 1998, evening – Rørvik, Vikna (UFO)
Kjellrun Olsen Haug discovered a bright red light in a bay near her house. At first she thought it was her neighbor doing work on his boat, but as she kept on watching, she also saw a white light under the red one. She moved over to the window to see better, and she saw that the light was hovering above the boat, some 200 meters away, illuminating the boat itself. She also saw two other similar lights, but farther out in the bay. She remembered that she had a camera available, and just managed to shoot a photo before all the lights started moving together further out in the bay. They shortly started to rise straight up into the sky. She then shot another photo. Eventually the lights disappeared.
May 1998 – Nesodden (UFO)
Second-hand information about a UFO photo published in the May 25, 1998, edition of the newspaper Akershus Amtstidende. Unfortunately we have been unable to locate it.

28 May 1998, 22:00 – Hardangervidda
Five people were driving through Gudbrandsdalen Valley when they spotted a light in the sky. The light followed them for four hours, all the way to Hardangervidda. Eventually the driver stopped the car and got out to shoot a photo.

There are several problems with this story. The photo is very bright, it appears to have been shot at the sun during daytime, and it shows a lens flare. Sunset was at 22:35 hours. The story is not plausible and the photo doesn’t match with the story or the atmospheric/astronomical conditions. We therefore consider this to be a hoax.
Six minutes past midnight, Trine Marit Olsen spotted a bright stationary object in the northern sky. The shape reminded her of an upside-down parachute. The reflection of the light could be seen in the Tingvollfjorden Fjord as a long yellow streak. She videotaped the phenomenon. Other people also observed strange lights this night. Svanhild Mykløy observed a bright light for an hour and a half, through 40x binoculars. She said the object was shaped like a cone turned upside-down. (See next case).

Sigurd Brekvikhaug also videotaped the same phenomenon, between 01:30 and 02:00. Jon Bjordal at the University of Bergen reached the correct conclusion that these two videos show a stratospheric balloon.
14 August 1998, 00:05 – Hessdalen, Holtålen. Automatic Station Picture.
Note: From August 7, 1998 to November 7, 2003 (with some downtime lapses in between), Project Hessdalen, under the capable leadership of Erling Strand, set up an Automatic Measurement Station (colloquially called the “Blue Box”), in order to monitor the Hessdalen Valley on a 24-hour basis and record any unusual light manifestations (alarm-triggered photograph and video). The resulting AMS pictures and videos can be found on Project Hessdalen's official web site http://www.hessdalen.org/
Also, in the “References and Sources” column of the FOTOCAT Norway catalogue, the proper case links have been included to help the reader find the pictures and their information. For this reason, and given the large number of cases of this type, no summary will be included in the present paper. Only when the recorded event has been explained, the explanation found will be indicated. AMS cases will be just described here with the date, the time, the common location of Hessdalen, Holtålen, followed by the descriptor “Automatic Station Picture.” (See the source section of the Norway FOTOCAT spreadsheet in the Appendix.)

Picture recorded at 08:23:13. The two lights on the photographs are just two ground spots illuminated by sunlight. When the subsequent video was studied, it confirmed that the sun had found a small opening through the clouds.


1 September 1998, 00:24 – Hessdalen, Holtålen. Automatic Station Picture.


8 September 1998, 00:18 – Hessdalen, Holtålen. Automatic Station Picture.

Pictures recorded 22:55:46, 23:01:08 and 23:01:27. They registered a lamp or flashlight that some young people threw up in front of the camera, up to three times.


5 November 1998, 00:15 – Hessdalen, Holtålen. Automatic Station Picture.

8 November 1998, 20:42 – Hessdalen, Holtålen. Automatic Station Picture. Video recorded 20:42:17. There was a lot of air-traffic above Hessdalen at this time. The video shows a flashing light moving towards the south. The flashing frequency and the speed tell that this is a plane.

20 November 1998, 03:46 – Hessdalen, Holtålen. Automatic Station Picture. (see inverted image)


27 November 1998, 00:15 – Hessdalen, Holtålen. Automatic Station Picture.

28 November 1998, 12:22 – Hessdalen, Holtålen. Automatic Station Picture. Video recorded 12:21:53. Project Hessdalen’s web site just mentions that a solution is found, without other details. For the sake of this catalogue, in such cases we will enter “Aircraft,” as the probable, simplest solution.


Video recorded 12:25:34. Aircraft.


14 December 1998, 05:00 – Hessdalen, Holtålen. Automatic Station Picture.


31 December 1998, night – Eidsvoll
Photo of a house shot at night, showing several so-called “orbs.” “Orbs” are caused by camera flash being reflected on environmental dust and/or moisture.


18 January 1999, 00:05 – Hessdalen, Holtålen. Automatic Station Picture.

Marthe Oddbjørg Gran looked out of her kitchen window and discovered a strange round dark object with some smoke trailing after it. She got her camera and shot a photo of the object from inside the house. Shortly after that the object dissolved or disappeared.

The investigation by UFO-Norge shed light on a firemen’s training exercise that day. Five liters of diesel fuel were burned explosively, the flames rising several meters up, and the smoke producing a dark ring at a height of 50-100 meters. In clear weather this kind of smoke rings can be seen from great distances. The reason the photo shows a line and not a circle, is that the ring was seen on edge.

29 January 1999, 00:30 – Refnes, Moss
Two observers saw a bright “star” in the southwest. They grew interested in this “star” because it was brighter than the others. The light pulsated regularly. At first it seemed stationary, but after a while it moved slowly towards the west on a slight downward course. At this time a photo was shot. After a while longer the light seemed to move faster. It moved downward and still a little to the right. The observers were all the time making reference to a radio tower (with a red light at the top), also visible in the photo. The light seemed to be moving slower, and stopping below the red light on the radio tower. Another photo was shot. The light then moved further northwest, turning redder in color, then pulsating a bit before disappearing.
Witnesses said the weather was clear, 10°C, and the moon was behind them. They estimated the apparent size of the phenomenon as 1-2 mm on an outstretched arm.
At 00:30 the moon was at 45° elevation and 211° azimuth (near SW). So the moon was not behind them…. Alternatively, if it was, the phenomenon they saw must have been towards NE. No planets were visible in the sky at the time (00:30-01:00).
The stars in the NE sky were rising up in the sky, and the stars in the SW sky were setting. Assuming the SW direction is correct – it fits the reported geographical information, as well as the motion of the phenomenon, we find the star Sirius at 12° elevation and 194° azimuth, setting to 11° elevation and 201° azimuth at 01:00. We consider this to be a likely identification.


February 1999, 12:00 – Tyristrand (UFO)
There was a strong wind from the northwest outside the witness’s house when he saw a flying object disappearing past the house, so he went to another room to continue observing it. Then he saw the object had stopped and it was
stationary, despite the strong wind. He went to get his camera and shot a photo, which was partly destroyed as it was the last picture of the roll of film. When he finished changing the roll of film, he discovered the object was coming back from where it stopped initially, and it was moving opposite the wind until it stopped outside the living room window. The object was standing still long enough to be photographed again. The object then disappeared in a high speed straight back over a distant hill.
The observer found it difficult to estimate the actual distance to the object. It could have been anything from one meter to two kilometers, but he guessed some 20 meters.
It was clear weather and sunshine outside.
Although the photo itself may indicate a kite of some kind, the report suggests an unknown phenomenon. This photo needs to be investigated further. Insufficient information.

7 February 1999, 20:00 – Hessdalen, Holtålen. Automatic Station Picture. Video recorded 20:00:27 and 20:01:45. Aircraft.
17 February 1999, 00:20 – Hessdalen, Holtålen. Automatic Station Picture.


27 February 1999, 00:09 – Hessdalen, Holtålen. Automatic Station Picture.


17 April 1999, 00:21 – Hessdalen, Holtålen. Automatic Station Picture.


15, 16 and 19 June 1999, evening – Gjøvik
Video recording made on three days, showing a bright light low in the evening sky, shortly before or after sunset. Lots of zooming in and out, and an unsteady camera. The Macro of the camera was on automatic mode, and the surprised commentary from the cameraperson indicates they were not aware that this distorting effect is entirely caused by the video camera. On these dates, the planet Venus was low on the horizon just in the particular direction the video recording was shot.


25 June 1999, evening – Holter, Nannestad
Kjell Christensen again. This time he brings forward a 30-second video showing a lonely pink cloud-like image over a blue sky background. The pink cloud is moving back and forth, but without any reference points it is impossible to decide whether or not it is the camera that is moving instead. We consider this to be a cloud, illuminated by a setting sun.
27 July 1999, day – Norway
A single photo without any supporting text. It shows just a blue sky with a
treetop at the bottom, and a black dot with what appears to be a white tail
behind it.
We consider this to be a film flaw.


10 August 1999, 23:00 – Lierne (UFO)
Two friends from Oslo were on a week-long hiking trip in the Lierne mountains.
That night, before going to sleep, they were watching the starlit sky. There was
some cloud cover. They observed a star that seemed to increase in size, but it
was actually coming straight towards them at high speed, before suddenly
stopping. It was a big round light, stationary and soundless. They estimated the
apparent size at outstretched arm at 2 mm. One of the two observers estimated
the size of the light at 40-50 meters in diameter. Its color was yellow-white.
Suddenly, the ball of light retracted along the same path it had come, until it was
as small as when it started, and then again it came towards them at high speed.
This time it was stationary long enough for them to get the camera and shoot a
photo. They took only one picture because they were getting scared. Before
going inside their tent, the ball of light started moving sideways, changing to a
triangular shape. They remained in their tent for the rest of the night.
The photo has not been seen by us. Insufficient information.


14 August 1999, 00:52 – Hessdalen, Holtålen. Automatic Station Picture.

4 September 1999, 23:45 – Hessdalen, Holtålen. Automatic Station Picture.


**Mid October 1999, night – Ásnes**
Three anonymous persons made a video recording of a bright luminous object in the night sky, and another in the early morning hours of the following day. The video was shot towards the SE, and is said to contain reference points like buildings and trees, so the phenomenon must have been low in the sky. Traffic is also heard on the video, in addition to the commentary by the three observers. The video recording has not been seen by the authors. We consider the planets Venus and Jupiter, and Sirius star to be likely candidates. They were all visible in the SE sky between late evening and sunrise, during the middle of October.

21 September 1999, 06:00 – Hessdalen, Holtålen. Automatic Station Picture.


Note: Sometimes, as in the present case, the monitor screen time shows the summer time, instead of the correct winter time, which is one hour ahead.


17 November 1999, 00:45 – Hessdalen, Holtålen. Automatic Station Picture.


Video recorded 20:41:52. Aircraft.


25 December 1999, night – Eidsvoll
A photograph without any back-up information, showing camera flash reflected on environmental dust or moisture – various so-called “orbs.”

2000, day – Holter, Nannestad
A single photo without any other information, possibly made by known “repeater” Kjell Christensen, showing camera flash reflected on environmental dust or moisture – a so-called “orb.”

2000, night – Holter, Nannestad
A single photo without any other information, possibly made by known “repeater” Kjell Christensen, showing camera flash reflected on environmental dust or moisture – a so-called “orb.”
2000, night – Romerike
A single photo without any other information, possibly made by known “repeater” Kjell Christensen, showing a light reflected in a window.

2000, day – Frogner, Romerike
A single photo without any other information, possibly made by known “repeater” Kjell Christensen, showing camera flash reflected on environmental dust or moisture – a so-called “orb.”

3 January 2000, 16:35 – Hessdalen, Holtålen. Automatic Station Picture
Video recorded 16:34:48 of a flashing light moving towards the south.
Probably a plane.

3 January 2000, 19:00 – Hessdalen, Holtålen. Automatic Station Picture.
Picture recorded 18:59:38 of a flashing light moving towards the south.
Probably a plane.


Video recorded 19:43:34, 19:47:52 and 20:08:53. This is probably water on the
window in front of the lens.

Video recorded 19:52:18 and 19:52:59 of a flashing light moving towards the
north. Probably a plane.


Video recorded 20:38:59 and 20:42:02 of a flashing light moving towards the
north. Probably a plane.
Video recorded 20:41:47. A flashing light moving towards the north with a speed of 0.4º/sec. Probably a plane.

Video recorded 20:53:53 of a flashing light moving towards the south. Probably a plane.


Video recorded 20:45:46 of a flashing light moving towards the north. Probably a plane.

Video recorded 19:06:09, 19:06:37 and 19:08:00 of a flashing light moving towards the north. Probably a plane.


Picture recorded 21:26:38. A flashing light moving towards the SW. It might be a plane.


Video recorded 20:52:18. It is a worm moving on the window in front of the lens.


Summer 2000 – Frogner, Romerike
A single photo without any other information, possibly made by known “repeater” Kjell Christensen, showing a lens flare.

4 August 2000, 00:01 – Hessdalen, Holtålen. Automatic Station Picture.

5 August 2000, 23:11 – Aspåskjølen, Hessdalen, Holtålen
Note: In August 2000 a team of Italian physical scientists, working in collaboration with Norwegian scientists from Østfold College, carried out an instrumental expedition in Hessdalen, which was just the first of a series of future scientific missions planned by the joint Italian-Norwegian EMBLA Project. The EMBLA Project was born in 1998 as a joint research initiative between the CNR (Consiglio Nazionale delle Ricerche), the Institutio di Radioastronomia (IRA) based in Medicina, Italy, and the Østfold College of Engineering based in Sarpsborg. The goal of EMBLA is the study of the electromagnetic behavior of unexplained luminous phenomena occurring recurrently in Hessdalen, by using sophisticated radio receivers and spectrometers. The radio spectrum analyzers, which were automatically functioning continuously for 25 days, permitted the discovery of highly anomalous periodic signals that were characterized by a spike-like and a Doppler-like morphology. Moreover, during the many planned sky-watching sessions, it was possible to sight repeated luminous atmospheric phenomena in various points of the Hessdalen Valley.

That day, it was made a video recording of a strong white light, pulsed irregularly. Distance: from 20 to 25 km. Direction: south. Position: between two mountains. Duration: 10-30 seconds for each pulsating event. Motion: approximately standing still. Number of events: several events during three nights. Luminosity: very high with drastic change of radiating surface, it occasionally showed a saturated nucleus. Shape: approximately spherical. Height above ground: probably a few meters. Dimensions: from 1 to 10 meters. Time: 23:00–01:00. Witnesses: four to six. Report type: visual, video, intensified/IR, binocular, and photographic (photos underexposed).
For astrophysicist Massimo Teodorani (Ph.D.) it was an example of the plasma geophysical phenomenon recurrent in the Hessdalen area. For technologist Jader Monari (MScEE), who took the video, it was just the headlight of a car.


13 August 2000, 00:43 – Hessdalen, Holtålen. Automatic Station Picture.


13 August 2000, 23:15 – Aspåskjølen, Hessdalen, Holtålen (UFO)
19 August 2000, 21:55 – Gullikstad
Larry Lemke, Thor Stuedal and Erling Strand were on their way back to Hessdalen, after a short visit at Røros. At a point just north of Røros, they saw a strong flashing light down on the hillside, towards the southern part of the Hessdalen valley, which is on the other side of the mountain. Erling Strand said: *We did not react at once, but when we were driving, we saw that the light was moving up the hillside. Then we became aware that this could be the Hessdalen phenomenon. We were at Gullikstad when we decided to turn back to the place we saw it for the first time. It was a better view from that location. We parked the car at a small parking spot close to the road, and went out. The Hessdalen phenomenon had then reached the top of the hill. It was flashing all the time with a frequency of about 1 Hz, and it was moving. Sometimes it was above the horizon, and sometimes below. Sometimes it moved to the left, and sometimes to the right. It went on like this all the time. I managed to take one picture with some success. During the exposure time of 4 seconds, we got four flashes and some of the movement. We looked at it for 15 minutes.*

Camera used was a Canon AE1 with an 80-205mm Osawa lens, which was adjusted to about 160mm. Exposure time was close to four seconds. A 400 ASA, 135mm film was used. The tree in the left of the photo was about six meters from the camera. They did not have any tripod with them, so they had to use the car as support.


27 August 2000, 00:21 – Hessdalen, Holtålen. Automatic Station Picture.


29 August 2000, 00:18 – Hessdalen, Holtålen. Automatic Station Picture.
September 2000, day – Leirsund, Skedsmo
A journalistic fake to illustrate an interview, made by superimposing a lamp into the photo.

Autumn 2000, day – Gjerdrum
Another picture taken by Kjell Christensen. It just shows a dark spot against a daytime sky background, apparently greatly enlarged. Could be just about anything, but most likely another fake.

3 September 2000, 00:16 – Hessdalen, Holtålen. Automatic Station Picture.


6 September 2000, 00:04 – Hessdalen, Holtålen. Automatic Station Picture.

Video recorded 22:02:20 of a flashing light moving towards the north. Probably a plane.

Video recorded 08:32:51 to 10:50:04. This was probably reflections from the window of a tractor. A farmer was working his fields.
Video recorded 22:06:15 of a flashing light moving towards the north. Probably a plane.


16 September 2000, 00:32 – Hessdalen, Holtålen. Automatic Station Picture.


21 September 2000, 00:29 – Hessdalen, Holtålen. Automatic Station Picture.


26 September 2000, 00:54 – Hessdalen, Holtålen. Automatic Station Picture.

27 September 2000, 00:57 – Hessdalen, Holtålen. Automatic Station Picture.

5 October 2000, 05:30 – Hessdalen, Holtålen. Automatic Station Picture.


2 November 2000, 18:22 – Hessdalen, Holtålen. Automatic Station Picture. Video recorded 18:21:44. This is the moon, the clouds are moving in front of the moon.


6 November 2000, day – Frogner, Romerike
Photo by Kjell Christensen of a dark object in front of a cloudy sky. It appears to be a bird in flight.

7 November 2000, 16:45 – Hessdalen, Holtålen. Automatic Station Picture.

18 November 2000, day – Frogner, Romerike
New picture by Kjell Christensen. The authors cannot perceive any kind of “UFO” in this photograph. A fake.

26 November 2000, day – Frogner, Romerike
Kjell Christensen took this photograph of a green, grassy landscape where a hazy gray object appears in the foreground, most probably an insect. The print seems to be highly cropped or enlarged.
Late November 2000, 23:00 – Rørvik, Vikna
A woman sometimes observed a light in the night sky. As no one believed her, she bought a video camera (Hitachi VM-H 650E) to get proof. This time, the weather was quite bad with rain and winds. She ran outside to film the light, but had to return inside after only 2-3 minutes because of the low temperature outside. (See early December 2000 sighting by the same lady.)


Early December 2000, 23:00 – Rørvik, Vikna
Five days later, the weather was nice. The woman’s husband and son also witnessed the phenomenon. She managed to videotape it for 6 minutes, before it disappeared at “high speed.” The video recording was shown on NRK1 program Redaksjon 21 on January 23, 2001. The light phenomenon appears to change shape a little bit, and also varies in color. This was also seen with the naked eye as well as through binoculars.

Arnulf Løken from UFO-Norge tested filming the planet Jupiter, a street light at 2 km distance, and the moon with a digital camera. After this, it was perfectly clear that the auto-zooming function on a point light produced a large image distortion. As long as the zoom is not used, the light presented a stable image. The exact same effect is apparent in the video recordings from Vikna in late November and early December.

The planet Jupiter was visible in the night sky (44° elevation at 147°-157° azimuth) during late November and early December. We consider it very likely that these two videos show Jupiter.

Video recorded 20:59:08 of a flashing light moving towards the north. Probably a plane.

Video recorded 18:33:20 of a flashing light moving towards the north. Probably a plane.

7 December 2000, 10:11 – Hessdalen, Holtålen. Automatic Station Picture.
14 January 2001, 15:54 – Tønsberg
Morten Lund was outside filming with his 8mm digital camera, testing it after having it back from repair. He spotted an aircraft and followed it with his camera. After a few seconds, another bright object entered the view and appeared to cross paths with the aircraft. The mysterious ball of light appeared to grow smaller and then it disappeared. The video has no reference points other than the aircraft, so it is impossible to ascertain if the phenomenon was moving or stationary.
Odd-Gunnar Røed from UFO-Norge made onsite investigations. At the start of the video, part of a tree is visible. By taking the height of the camera, distance to the tree, etc., the angle of the video recording was estimated at a little less
than 30°. The planet Venus was indeed visible at this time, towards the south (21° elevation at 169° azimuth).

18 January 2001, 23:00 – Oppdal (UFO)
A light phenomenon was captured on video. The observer filmed it for nearly 30 minutes, between 23:00 and 23:45. He was 8 km south of Oppdal, which is west of Hessdalen. A shapeless light in the sky was turning into a perfect isosceles triangle. The person who made the video wisely “calibrated” the anomalous event by aiming his video camera at a luminous star and then zooming it, in the same way in which the real light phenomenon was zoomed, in order to exclude any possible instrumental effects. The zoomed star (with magnitude slightly smaller than the real light event) was just a circle, while the phenomenon was a perfect illuminated triangle. So the phenomenon was real. The phenomenon’s position was south-east. We have seen only a sequence of 2 minutes, 20 seconds of this video.
February 2001, day – Stovner, Oslo
Only a single daylight photo of two parallel diagonal white streaks in the blue sky. No other information exists. Consultant Andrés Duarte feels it is an over-exposed image of a time-exposure photograph of an airplane.


8 February 2001, night – Holter, Nannestad
A short, 10-second video clip film by Kjell Christensen shows a staff-shaped light in the dark night sky. Consultant Andrés Duarte states it corresponds to any star.

9 February 2001, night – Holter, Nannestad
Kjell Christensen again. A still from a video recording is available and it shows a distorted globular blob of light, seen against a dark sky. Probably the planet Venus.
12 February 2001, night – Holter, Nannestad
Kjell Christensen once more. This time, he provided a highly enlarged and distorted image, with no supporting documentation. It could be just about anything. We feel it is another fake.


27 February 2001, 19:00 – Holter, Nannestad
A bright light recorded on video by Kjell Christensen with no supporting information. It could be anything, including a fake.


Video recorded 16:37:46. It is the exhaust of a plane.

Video recorded 19:35:43 of a flashing light moving towards the north. Probably a plane.

Video recorded 21:04:16 of a flashing light moving towards the north. Probably a plane.
17 March 2001, 20:00 – Holter, Nannestad
“Old friend” Christensen produces a video with a bright light recorded. No other information is available. It could be anything, including a fake.


Video recorded 23:17:01 of a flashing light moving towards the north. Probably a plane.

19 March 2001, 19:30 – Holter, Nannestad
A still from a video recording, made by Kjell Christensen, shows a distorted globular light against a dark sky. No more details known. It could be anything, including a fake.


22 March 2001, night – Holter, Nannestad Kjell Christensen’s material. Now, a still from a video recording, showing a street light and an unknown light above it, against a dark sky. No more information. It could be anything, including a fake.


24 March 2001, 22:03 – Holter, Nannestad A still from a video recording shot by Kjell Christensen. It just shows a light in the sky through some tree branches. No information. It could be anything, including a fake.
Video recorded 22:07:33 of a flashing light moving towards the north. Probably a plane.

12 April 2001, night – Holter, Nannestad
From Kjell Christensen. A highly enlarged and distorted image that could be just about anything, including a fake. No other information.

20 April 2001, 00:06 – Hessdalen, Holtålen. Automatic Station Picture.
22 April 2001, 00:00 – Hessdalen, Holtålen. Automatic Station Picture.


29 April 2001, night – Norwegian coast
An English tourist shot a photo of the Norwegian coast from a ship. An anomalous object, seen in the top left hand corner of the photo, is apparently below cloud cover. The image resembles so many other reflections, so this is most likely another reflection of a lamp on a window.


19 May 2001, day – Lindeberg, Sørum
Daylight photo of trees and bushes, showing two triangular lens flares, by predictable Kjell Christensen.
29 May 2001, evening – Holter, Nannestad
Kjell Christensen photo of some clouds in the sky, with a streak of white light. It appears to be an elongated cloud or possibly an aircraft contrail.

3 June 2001, 05:00 – Hessdalen, Holtálen. Automatic Station Picture.
Video recorded 05:00:25. This is probably snow falling just in front of the camera. The video shows snow is falling.

18 June 2001, 21:00 – Kristiansand
An anonymous husband and wife (in their 40s) from Kristiansand photographed a gray-colored object above their house. They were outside taking a walk, and on their way home, some 500 m from their house, when they noticed a growling sound above them. The object was gray, oblong and round. It was stationary for approximately seven seconds, before moving quickly back and forth a little. After some 10 seconds of these movements, it took off at high speed away from us. They estimated the size of the object to be 20 meters and the distance 150 meters. They observed the phenomenon in a northeast direction. Photograph was shot with a digital camera.
The photo looks like a balloon, but the low quality of the published copy makes it impossible to confirm. This needs to be investigated further. Insufficient information.
25 June 2001, day – Holter, Nannestad

Between 20 and 29 July 2001, day – Halden
Three photos of a fireball smoke trail taken by P.A.G.

Note: In the month of August 2001, EMBLA 2001: The Optical Mission was accomplished. It was a new joint collaboration between Italians scientists and Norwegian engineers. This year's Italian activity concentrated on the acquisition of optical data coming from conventional photography, video imaging and video-spectroscopy. The final research report was signed by Dr. Massimo Teodorani, Erling P. Strand and Bjørn Gitle Hauge.

A video was acquired showing a spherical white-yellow light at a distance of some kilometers during a few seconds. It was a pulsating light ball, standing still in S-SE direction. It was witnessed by three persons.

August 2001, night – Aspåskjølen, Hessdalen, Holtålen
Note: Unfortunately, on five instances during August, a series of interesting images were collected by the EMBLA investigators where no date or time is known. They were registered on film by chance without any visual support by the team members and there is not a record of day and hour. Those flashes were seen every night and everywhere in the valley, mostly low in the sky, but also on the top of the hills and sometimes also very near the ground. These mostly-globular-flashing lights lasted normally less than a second, and they were mostly white-blue in color, much more rarely also red and yellow (the latter ones, being the largest in dimension).

On one instance, a ball-like flash accidentally made an image on the camera’s 100 ASA film during an exposure of two minutes. The direction was south. The light had a very energetic nucleus. Photographed, processed and analyzed by Dr. Massimo Teodorani.
August 2001, night – Aspåskjølen, Hessdalen, Holtålen
On another occasion, a ball-like flash accidentally made an image on the 200 ASA film during an exposure of several minutes. Photographed, processed and analyzed by Dr. Massimo Teodorani.

August 2001, night – Aspåskjølen, Hessdalen, Holtålen
On yet another occasion, on a time exposure of 2 minutes a ball-like flash accidentally made an image on the 100 ASA film. Photographed, processed and analyzed by Dr. Massimo Teodorani.

August 2001, night – Aspåskjølen, Hessdalen, Holtålen
On another time, a ball-like flash accidentally made an image on the 100 ASA film on a time exposure of several minutes. Photographed, processed and analyzed by Dr. Massimo Teodorani.

August 2001, night – Aspåskjølen, Hessdalen, Holtålen
On another occasion, a pulsating ball-like flash in motion accidentally made an image on the 100 ASA film on a time exposure of several minutes. Photographed, processed and analyzed by Dr. Massimo Teodorani.
1 August 2001, 23:26 – Aspåskjølen, Hessdalen, Holtålen
Simona Righini videotaped the apparition of a spherical, yellow, faint, small light some kilometers away, during a few seconds. It was a pulsating light ball standing still to the SW. There were five witnesses.

1 August 2001, 23:48 – Aspåskjølen, Hessdalen, Holtålen
Dr. Massimo Teodorani videotaped for “tens of seconds” a pulsating light ball standing still. It was spherical, yellow, faint bright, small and located in the SW at a few kilometers away. There were five witnesses.


2 August 2001, 23:11 – Øyungen, Hessdalen, Holtålen
A slow-motion ball of light was captured on video by Simona Righini. It was a small sphere of faint yellow light at several kilometers’ distance, located in the south. There were five witnesses.

4 August 2001, 23:59 – Aspåskjølen, Hessdalen, Holtålen
Dr. Massimo Teodorani took pictures of a blinking, weak light, standing still at some kilometers to the south. It was spherical, red in color, faint, and small. There were three witnesses.

6 August 2001, 22:30 – Aspåskjølen, Hessdalen, Holtålen
A blinking light was videotaped by Simona Righini. The summation of 30 contiguous video frames (1/25 sec each) reveals an internal structure composed of sub-balls vibrating around a common barycenter (center of gravity).

8 August 2001, 22:45 – Aspåskjølen, Hessdalen, Holtålen
Pictures taken by Dr. Massimo Teodorani of a spherical, white-blue, faint, and small blinking light. It was in the south, standing still some kilometers away. There were three witnesses.

10 August 2001, 22:44 – Aspåskjølen, Hessdalen, Holtålen
Video by Simona Righini and pictures by Dr. Massimo Teodorani were taken of a blinking light, standing still some kilometers to the south, for 30 seconds. It was a medium-bright, medium-sized, sphere of yellow-white color. It was seen by eight persons.

11 August 2001, 23:07 – Aspåskjølen, Hessdalen, Holtålen
Both video and pictures were obtained, during 10 seconds, of a spherical light, white-blue in color, faint in brightness, small in size, seen some kilometers away to the south. It was blinking and standing still. There were three eye-witnesses.

12 August 2001, 00:10 – Hessdalen, Holtålen. Automatic Station Picture.


15 August 2001, 23:35 – Øyungen, Hessdalen, Holtålen
Through Night Vision System equipment, Dr. Massimo Teodorani got photographs of a slowly-moving flashing light, ellipse-shaped, white in color, faint brightness, small, located some kilometers away. It lasted 30 seconds. There were six witnesses.

16 August 2001, night – Hessdalen, Holtålen
Three different video recordings were made this night (times unknown) by Simona Righini.

18 August 2001, night – Hessdalen, Holtålen
One video recording achieved at an unknown time by Simona Righini.

18 August 2001, 21:15 – Aspåskjølen, Hessdalen, Holtålen
For 20 minutes, Simona Righini videotaped and Dr. Massimo Teodorani photographed, in the company of two more, from two to seven medium-sized, multicolored blinking lights. They were located some 2.5 km to the SE. They were spherical (but changing shape). Video-spectra were achieved.

18 August 2001, 23:15 – Aspåskjølen, Hessdalen, Holtålen
For 30 seconds, Simona Righini videotaped and Dr. Massimo Teodorani photographed, in the company of four more, a blinking light, standing still, spherical in shape, white-blue in color. Both size and brightness were medium and it was in the south at some kilometers’ distance. Video-spectra were obtained.
19 August 2001, 23:30 – Fjellbekkhøgda, Hessdalen, Holtålen
A mysterious object appeared in a digital photograph made by B. G. Hauge, not visually seen. Enhancement processed by Dr. Massimo Teodorani shows the object to be floating in the sky. According to Dr. Teodorani, it can be explained in a prosaic way, i.e., a flying insect, whose wing beating rate is 1/250 sec. While the exposure time is the flash time (1/90 sec), it is impossible to see the wings because the exposure time is three times lower.

21 August 2001, 22:30 – Aspåskjølen, Hessdalen, Holtålen
During a period of 30 seconds, both video (Simona Righini) and still photos (Dr. Massimo Teodorani) were obtained of a blinking light, standing still, some kilometers away to the south. It was spherical in shape, white-blue in color, medium-sized, and medium brightness. There were three witnesses. Video-spectra were obtained.

23 August 2001, 00:17 – Hessdalen, Holtålen. Automatic Station Picture.


23 September 2001, night – Holter, Nannestad
Highly enlarged photo made by Kjell Christensen of a light source against a dark background. No more information is known. It could be anything, including a fake.


February-March 2002 – Stange

A short video recorded by Geirfinn Øvergård, showing a light increasing in brightness in the sky above a lawn. It started to pulsate before disappearing. Most likely an aircraft.


18 February 2002, day – Hokksund, Øvre Eiker

Photograph of a cloud shaped like a jet fighter.


9 March 2002, day – Holter, Nannestad
Still picture from a video made by Kjell Christensen, showing some tree tops with a light in the sky above them. No other information available. It could be anything, including a fake.

13 March 2002, day – Holter, Nannestad
Still picture from a video made by Kjell Christensen, showing some treetops with a light in the sky above them. No other information available. It could be anything, including a fake.


15 March 2002, 00:06 – Hessdalen, Holtålen. Automatic Station Picture.

16 March 2002, 00:45 – Hessdalen, Holtålen. Automatic Station Picture.


19 March 2002, 21:15 – Stange
Two women observed white/green/red lights every Tuesday for several weeks. Then on the 19th they managed to videotape the phenomenon. A hand-held, analog video camera with auto focus on was used, so the short video achieved is quite erratic. Still, two white lights were visible in the sky. Most likely aircraft.


5 April 2002, night – Holter, Nannestad
Still picture from a video taken by Kjell Christensen, a light is seen through some tree branches. No more information exists. It could very likely be a planet or an aircraft?

9 April 2002, 21:15 – Stange
An orange ball of light was seen and photographed by journalist Espen Solli. *Larger than a star, it was stationary, so it didn’t look like an aircraft*, say Ingunn Siefarth Vasaasen and her mother Hilde Siefarth Vasaasen, who both saw the same phenomenon. The light was in the southern sky, low on the horizon (the photo shows buildings and trees as reference points). Gardermoen Airport is also to the south. Was it an aircraft?
24 May 2002, day – Notodden
Nineteen stills from a video recording showing what appears to be a kite or balloon.

16 June 2002, 21:49 – Hemnessjøen, Trøgstad
R.M. was out testing his newly-acquired *Olympus* C-100 digital camera. On a few of the photos he registered some odd white objects, like streaks of light. The photos have the lake and surrounding landscape as reference points. Enlargements indicate the objects are birds. EXIF meta-data in the photos indicate the photos were shot on the date stated, at 21:49 and 21:53.
13 July 2002, 09:22 – Oslo
A woman shot a photo of a dark object in the sky above Oslo. The photo was emailed to UFO-Norge a few days later. The photo shows the clear blue sky with a small dark round object. It appears to be a typical weather balloon, launched every morning by the meteorological institute. EXIF meta-data in photo indicate it was shot with a Sony Cyber-Shot at 09:22 on the date stated.

24 July 2002, 23:40 – Salsvann
UFO-Norge received two photos in August, of a man (brother of A.J.) holding a fish – the catch of the day. In both photos we find displays of what is known as “orbs,” virtual images produced when the camera flash is reflected off environmental dust or moisture. The EXIF meta-data indicate the photos were
shot with a *Canon Ixus*, the day and time as stated by photographer (F/3.5 – one photo shot at 1/30\textsuperscript{th} second, the other at 1/60\textsuperscript{th} second). The brother of A.J. also had a camera (not digital) and he also reported the same effect in some of his photos.

25 July 2002, 21:35 – Ny-Hellesund, Søgne

Bjørn Haugen and his wife were on a boat trip together with friends, when they observed a mysterious luminous phenomenon in the sky, 15° above the horizon. The phenomenon was moving northeast. Haugen says that the two tails piqued his curiosity – if it had only had one tail he could have believed it was a meteor. Scientists consulted by the press provided different random explanations, all of them wrong. On the next day the newspapers published the real explanation. Erling Krange (formerly at the air traffic control center at Gardermoen) made inquiries and found out that SAS flight 901 from Copenhagen (Denmark) to Newark (New Jersey, USA) was above Ny-Hellesund at that precise date and time. The image on the video is created by the four jet engines producing two thick stripes of exhaust/condensation, on which the sun is shining, since the aircraft is at 36,000 feet altitude (12 km).
Summer 2002, 21:00 – Notodden (UFO)
J.K. and his wife, together with her sister and sister’s boyfriend, were outside one Friday night relaxing after a barbecue. His wife noticed something flying in the sky. A “dark” object moving horizontally along the valley, which started to rise vertically. It was soundless, and J.K. managed to videotape it for a while. We have not seen the video ourselves.
Insufficient information.

August 2002, evening – Lakselv, Porsanger
Two photos of a "UFO-like" cumulonimbus cloud, shot towards the end of August. Photographer says lightning flashed inside the cloud, with no apparent thunder. One of the photos shows a small black dot between two streetlights, probably a bird or a bug.

5-18 August 2002, 22:00-24:00 – Aspåskjølen, Hessdalen, Holtålen
Note: From August 5th to 18th, Dr. Massimo Teodorani was able to take photographs of light phenomena in Hessdalen on 15 different occasions. At least six of them were retained for analysis and are documented in the literature, in spite of the fact that no exact date is known for these occurrences. The following general description is common to all six photographic events.

A light phenomenon appeared several times in two weeks, as seen towards the south from the Aspåskjølen site. Photos were taken using a Yashika 107 Multiprogram reflex camera of 70 mm and a Praktica BX-20 reflex camera at 270 mm, with exposure times ranging from 30 to 120 seconds, 100 ASA Kodak Ektachrome film. The observed and recorded phenomena occurred between 22:00 and 24:00 hours, in almost all cases the light appeared very close to the ground, it blinked very fast with a pulsation rate of less than a half second, and the entire performance lasted from 1 to 30 seconds, most frequently 5 seconds. The processing shows that the light-phenomenon was occasionally seen up to several tens of meters above the ground. The light appeared in different
positions, evaluated as about 100 m orthogonally to the observer. In one case, the light-phenomenon ejected a smaller light-ball. Distance was some 9 km and calculations by Teodorani indicate absolute luminosity values ranging from 36,000 to 52,000 watts, total energy values from 1.8 to 3.7 \times 10^{12} \text{ ergs}, and temperature values from 8,400\degree to 9,600\degree Kelvin, for the six photographic events.

7 August 2002, 23:05 – Aspåskjølen, Hessdalen, Holtålen
Astrophysicist Dr. Massimo Teodorani took photographs and spectra of a cluster of light-balls, during time exposures from 30 to 120 seconds, on 100 ASA film, characterized as a plasma geophysical phenomenon, according to his general theory for the Hessdalen light-ball events. Calculations by Teodorani indicate an absolute luminosity of 100,000 watts, a total energy of 5 \times 10^{12} \text{ ergs}, and a temperature of 10,000\degree Kelvin. The phenomenon appeared to be located very close to the trees on the top of a hill, 9,000 m away. If the distance was
higher, the luminosity and energy values would be proportionally greater. The calculated radius of the light was 10 m. The entire performance lasted from 1 to 30 seconds, averaging five seconds.

On the other hand, physicist Matteo Leone, also from the EMBLA team, has disagreed on the above conclusions and presents a mundane scenario for these images, namely that they belong to the headlights of a car. Some other scientists have also contributed to an, unfortunately, too over-charged scientific debate.

2 November 2002, 04:00 – Rollag, Numedal
Thomas Mogen was outside walking when he noticed a bright point of light in the night sky. When he went home and got his binoculars, it seemed the light was pulsating. Slowly, very slowly, it went from east to west. He called a friend of his, Amund Henriksen, who had a digital video camera. Henriksen started filming the phenomenon from his home. The light disappeared around 05:30 behind a hill towards the east (or possibly west, there is some confusion in the sources).

Kåre Aksnes and other astronomers suggested either planet Jupiter or Sirius as the explanation. This is a quite probable explanation, as both Jupiter and Sirius were visible at the time. Jupiter was at 29° elevation and 110° azimuth (ESE) 04:00, and at 39° elevation and 134° azimuth (SE) 05:30. Sirius was at 11° elevation and 161° azimuth (SSE) 04:00, and at 13° elevation and 183° azimuth (S) 05:30.
19 November 2002, 15:40 – Asker
Helene Solberg glanced out her window on a dark wintry afternoon and saw something she won't soon forget. Solberg noticed an object with a long, bright tail. Luckily, her family's video camera was close at hand. She excitedly called her husband, Stig Solberg, while marveling at the comet-like flying object that soared through the late afternoon sky. Just the night before, the couple had tried to capture video of the Leonid meteor shower. Helene Solberg then grabbed the video camera and started shooting. The entire episode lasted about eight minutes, with three minutes of it captured on tape, before the unidentified flying object disappeared from view.
As the time printed on the video clip is wrong, there was initially some confusion due to this, but, finally, Clas Svahn of UFO-Sverige identified the phenomenon as an aircraft condensation trail illuminated by the setting sun.
**12 February 2003, 09:50 – Lillehammer**
Dick Johansson, a Swede visiting Norway at the time, shot a landscape photo outside Lillehammer – towards east-southeast. Three white dots, one above the other, appeared on the photo. Probably badly-set, EXIF setting indicate February 11\textsuperscript{th}, at 11:49 hours. The camera was a Sony Cybershot, with ISO100, F/5.6 and exposure time at 1/500 second.
Most likely the automatic flash on the camera has kicked in, and the camera then registered the reflections off of three snowflakes.

![Image of a landscape photo from Lillehammer showing three white dots.](image1)

**14 February 2003 – Juovlavuotna, Tana**
Viktor Trosten shot a photo of a phenomenon he observed low on the horizon, just above a mountain. We do not even know the time.
It could be a sunset or sunrise partially occulted by the clouds.

![Image of a horizon with a possible phenomenon.](image2)
22 April 2003, 16:30 – Sirdalen
Geir Rasmussen was photographing some people skiing during the winter holiday, sometime between 16:00 and 17:00. On one of the photos a white blob-like object appeared. According to photographer, nothing strange was visible at the time of the photography. A Canon digital camera was used. We consider it likely the white object in the photo is a cloud.

13 July 2003, 14:50 – Gilsådalen, Meråker
Anita Grande was on a trip to Meråker during July 14th to 20th. Sometime during this week, “in the middle of the day,” she shot two photos in which a gray spot appeared. This was discovered much later. She doesn’t remember there being any aircraft nearby at the time, or any sound when the photos were shot. Camera is of the type Canon Powershot S40 digital camera. EXIF meta-data reveal the photograph was actually shot on July 13, 2003 at 14:50 hours (1/500 second, F/2.8).
This looks very much like a bird in flight, even its wings are visible.
14 and 15 July 2003, 01:30 – Vestby
Younès Stubberud observed and videotaped a phenomenon on both the 14th and the 15th, between 01:30 and 03:30 (same time both nights). The TV2 news aired the video on the 18th. The video was recorded towards the south. TV2 also interviewed Knut Jørgen Røed Ødegård (astrophysicist at the University of Oslo), who stated that it was probably the planet Mars. Mars was indeed visible in the low sky towards the SSE: at 01:30 hours, the planet Mars was at 7° elevation and 134° azimuth; and at 03:30 it was at 15° elevation and 163° azimuth.

29 July 2003, 01:38 – Sørum
UFO-Norge received a series of pictures from G.A., from Sørum, who had observed a strange reddish light in the sky. The photos received by email were all shot with exposure time of two seconds (ISO80 and F/2.4). EXIF meta-data revealed the exact date and the times: 01:38, 01:39, 01:40, 01:41 and 02:26 hours. The camera used was an Olympus E-10. The planet Mars explanation of cases dated July 14th and 15th also applies here.

31 July 2003, night – Sørum
UFO-Norge received a series of pictures from G.A., from Sørum, who had observed a strange reddish light in the sky. The photos received by email were all shot with exposure time of two seconds (ISO80 and F/2.4). The camera used was an Olympus E-10. The planet Mars explanation of cases dated July 14th and 15th also applies here.

6 August 2003, 00:43 – Sørum
UFO-Norge received a series of pictures from G.A., from Sørum, who had observed a strange reddish light in the sky. The photos received by email were
all shot with exposure time of two seconds (ISO80 and F/2.4). EXIF meta-data revealed the exact time: 00:43 hours. The camera used was an *Olympus* E-10. The planet Mars explanation of cases dated July 14th and 15th also applies here.

29 August 2003, 22:50 – Hessdalen, Holtålen

Note: During the summer of 2003, the Italian Committee for Project Hessdalen (ICPH in its Italian acronym) ([info@itacomm.net](mailto:info@itacomm.net)) developed a scientific campaign in Hessdalen to control and test instrumentation, VLF and ULF radio, radar, MPS, etc.

During this activity, Jader Monari and Luca Andreoli observed a luminous phenomenon in the atmosphere on August 29th at 22:50 hours. It was qualified as of “unknown nature.” During the event, a video was successfully obtained.

27 September 2003, 23:24 – Vista Point, Hessdalen, Holtålen

28 September 2003, 00:59 – Vista Point, Hessdalen, Holtålen

Italian observers Massimiliano Di Giuseppe and Ferrucio Zanotti were at Vista Point (62° 50’ 19.6” N, 11° 11’ 15.8” E). They sighted luminous flashes in the south direction from 22:30 hours on September 27th to 01:21 hours of September 28th. They were able to videotape the lights at 23:24 and 00:59 hours.

29 September 2003, 00:14 – Lake Øyungen, Hessdalen, Holtålen

29 September 2003, 01:18 – Lake Øyungen, Hessdalen, Holtålen

29 September 2003, 01:40 – Lake Øyungen, Hessdalen, Holtålen

29 September 2003, 01:50 – Lake Øyungen, Hessdalen, Holtålen
29 September 2003, 02:13 – Lake Øyungen, Hessdalen, Holtålen
Italian observers Massimiliano Di Giuseppe and Ferrucio Zanotti were beside Lake Øyungen on a night watch mission from 22:30 hours of September 28th to 02:20 of September 29th when they registered visually, by video and by still photography a number of “light flashes.”

7 December 2003, 16:30 – Drammen
K.V. was outside to take some shots of the beautiful sunset. After transferring the photos to her computer, she discovered two luminous spots among the clouds in one of the photos, and sent it to UFO-Norge. We consider this to be just two small patches of cloud illuminated by the setting sun, thus appearing luminous.

12 December 2003, 01:09 – Lillehammer
M.H. was testing out his new camera, a Nikon E2100. He sent a photo to UFO-Norge with the following description: Shot of the moon, with long exposure time. There is something strange above the moon.
The light above the moon in this photo is the star Pollux, smeared by unsteady camera. EXIF meta-data indicate the photo was made with a two-second exposure time (ISO80 and F/4.4).
15 December 2003 – Elverum (UFO)
R.S. and a friend observed a phenomenon in the sky for 30 minutes. For 10-15 minutes it was recorded on a digital video, one which the authors of the present paper have not seen.

15 December 2003, 16:16 – Songdalen, Kristiansand
A.G. was outside photographing nacreous clouds (polar stratospheric clouds) and in one of his photos there appeared a number of similar-looking inverted T-shaped “things.”
The fact that this effect only appeared on one photo of the series he took, makes us consider this to be a digital camera artifact.

14 January 2004, 12:00 – Stord
Journalist Wenche M. Eriksen was shooting photos of landscapes in two different woods near Stord, on the 14th and the 20th. On both occasions she
registered so-called “orbs” on her photos. Camera was a Nikon Coolpix 5400. “Orbs” are caused by camera flash reflected on environmental dust or moisture.

17 January 2004, 09:00 – Lura, Sandnes
Aftenbladet photographer Knut Vindfallet observed a dark smoke trail that seemed to follow an object. This was observed low towards the horizon, in the southeastern sky around 9 o’clock, and the event was videotaped. Consultant Alan Pickup considers this to be an aircraft condensation trail.

17 January 2004, 09:00 – Norway
A photograph was received from E.T., showing the sunset illuminating a long, spiral-shaped “cloud.” As this was shot at the approximate same time and place as the previous case, we consider this to be the same aircraft condensation trail, from a different perspective.
20 January 2004, 12:00 – Stord
Another photo by Wenche M. Eriksen, also showing “orbs,” i.e., camera flash reflected on environmental dust or moisture. See the 14 January 2004 case.

27 January 2004, 14:25 – Son, Vestby
Professional photographer S.S. was shooting some landscape photos on the 27th and the 30th, to be used in an exhibition. On some of the photos he discovered some dark and white spots. He then sent them to UFO-Norge for evaluation.
The first photo was from the 27th, shot with F/7.3 and 1/144 second exposure time. It shows a fjord with snow-covered landscape and a red house in the middle. Above the house there is a small white dot.
We consider this to be a digital camera artifact.

30 January 2004, 12:22 – Son, Vestby
Another landscape photo by S.S., shot with F/7.9 and 1/86 second exposure time, showing a snow-covered landscape with a bridge across a river. A little above the bridge there is a small dark spot.
We consider this to be a bird in flight.
1 April 2004, 00:45 – Eikesdalen, Nesset
Three people observed a bright light in the night sky just above the hills on the western horizon. A digital video camera was used to videotape the phenomenon. Photographs were made as well. During a conversation held with the principal witness two weeks after the event, it became obvious that it was a planet that had been filmed. Image appears severely distorted, as usual. The planet Jupiter was at 34° elevation and 197° azimuth (SSW, left to the moon). The planet Venus was also visible at 6° elevation and 308° azimuth (NW). Since the light observed was “low in the horizon,” it seems Venus is the better candidate.

4 July 2004, 18:30 – Nordhamarvik, Frøya
UFO-Norge received a photo from Rolf Martinsen, shot at Nordhamarvik, showing a forested mountain landscape. Something odd, a gray object in the sky, was noticed in the photo after it was shot. Camera used was a Canon Powershot S1. We consider this to show a bird in flight.
20 July 2004, 19:00 – Saltstraumen
S.N. photographed her mother, next to Saltstraumen, and discovered an object in the photo afterwards. Camera is a Canon Ixus, exposure time is 1/200 second. Probably by a bad setting, EXIF meta-data indicate July 17th and 13:32 hours.
It is most likely a bird caught in flight.
29 July 2004, 11:15 – Dovrefjell
A woman shot some landscape photos at Dovrefjell, and later discovered a diffuse spot in one of them after transferring photos to her computer. Camera was a Kodak CX4210, photo was shot with 1/300 second exposure time, F/8 and ISO100.
We consider this to show a bird caught in flight.

19 September 2004, 02:23 – Os
Vegard Kristoffer Emanuelsen and 12-15 other people observed a bright luminous object in the morning sky. The phenomenon varied in luminosity as well as in color. Two video cameras were used to record the phenomenon, one by Emanuelsen himself, which resulted in a total of 55 minutes of video recordings. These were recorded in periods between 02:30 and 10:15 – not continuously.
Emanuelsen showed the recording to US scientist Marsha Adams and students from Østfold College, who were in Hessdalen during Science Camp 2004. They concluded that it was Venus what had been videotaped.
The planet Venus rose in the NE at 02:25 hours. At 03:00 it was at 3° elevation and 63° azimuth and continued to rise up some 7° every hour and moving some 13° in azimuth towards the SE every hour. Sunrise started 06:54 hours.

November 2004, evening – Storsjøen, Rendalen
Grete M. shot this photo at Storsjøen during November. We see a landscape with a frozen lake, some trees, and a large light low in the horizon. Judging from the shadows in the photo, among other things, we consider this to be a photo of the sun setting behind the hill in the distance.
30 December 2004, 15:30 – Trondheim
Tor Halvor Barstad, his wife, and her sister observed an elliptical white phenomenon in the sky. The weather was partly clouded, some patches of blue sky, with mostly dark clouds. The phenomenon was very white in comparison with the surrounding sky. When some of the dark clouds parted, the white elliptical phenomenon became more visible. The color was mostly white, with traces of yellow and pink around the edges. Barstad managed to videotape this for 2 minutes before it disappeared behind a rain-cloud. He contacted Frank Lervik of the local TV station TV-Trøndelag, who in turn contacted UFO-Norge. The phenomenon was then quickly identified as a polar stratospheric cloud.

2005 – Oppdal (UFO)
Source is a website relating experiences and theories from contactee Magne Olav Istad. Nothing is stated regarding the three photos at the bottom of the
site. The photos show blobs of light shot through bushes or tree branches, and it is unknown if these come from a video or from stills. Contacteeism background from the promoter of the UFO photographs suggests we consider them unreliable and probably faked.

9 January 2005, night – Mehamn, Gamvik (UFO)
A 24-second long video (shot with a cell phone) was sent to UFO-Norge. Two women observed a light for some two minutes and recorded it. The video shows only a small point of light against a dark background. Without any points of reference, nothing much can be deduced from the video. Insufficient information.

26 March 2005, 20:01 – Lillestrøm, Skedsmo
J.R., a man from Lillestrøm, took three photos of the moon with his Sony DSC-P41 digital camera. On one of the photos a strange disc-shaped light appeared. The three photos were shot at 1 minute intervals. The photo shows the city lights of Lillestrøm, with an orange moon low in the horizon, and a strange disc-shaped object to the left of the moon, all against a dark sky. EXIF meta-data indicate 1/40 second exposure time, F/2.8 and ISO250. In the lower right-hand corner of the picture one can see some streaks indicating the photo was shot through a window, what proved that the strange lens-shaped object is merely a reflection from a light-source inside the house.
9 May 2005, day – Østfold
UFO-Norge received three photos from a man who was helping a 60-year-old woman transfer her photos to a computer. The woman had just bought a digital camera and needed some assistance. Some round diffuse-looking “objects” were discovered on some of her photos, shot on a rainy day. The round “objects” are caused by water droplets on the camera lens.

23 July 2005, 21:00 – Ulla, Haramsøy
A man sent a photo to UFO-Norge. He says an object was moving back and forth in the sky, and afterwards it stood still in front of the sun. He snapped a picture of it. It shows a fjord, the blue sky and a black spot right in the middle of the sun. The photo is simply the Sun. The black spot is caused by over-burning (overexposing) the CCD (charge-coupled device), the electronic light sensor digital cameras are equipped with. Of course, the story about the “object” is considered to be a hoax.
30 July 2005, 00:18 – Galdhøpiggen, Lom
UFO-Norge was alerted about a Web camera that had registered a strange light effect, a vertical streak of yellow light. We checked the Webcam address, and it was found that this effected repeated every night. In our view, this is just a reflection from a nearby light source.

9 August 2005, 22:36 – Åndalsnes, Rauma
A woman from Hamar sent two photos to UFO-Norge showing the same landscape. The first one was a dark, spoiled photo. It was made at 22:36 and it shows an irregular white dot on it. The second one was well-lighted. It was shot one minute later and no “UFO” appears. In the first photo (1/60 second exposure time), a flash was used, but not in the second, good photo. We consider this to be a reflection from an insect near the camera.
20 November 2005, 18:59 – Trondheim

UFO-Norge received a report from an amateur astronomer, who had photographed Mars through a Helios telescope, using a Casio EX-Z750 digital camera. He reports that he first took a photo at 18:45 with an exposure time of 4 seconds, but it came out very fuzzy. Two minutes later he took another photograph, this time with 1/8 second exposure time. On this photo he also registered three streaks of light.

Birger Andresen (Trondheim Astronomical Society) checked for possible satellites, and found that a triple satellite had indeed passed in front of or near the position of Mars, but the time was a little off. Later it was found that the time on the digital camera was a little off as well, and when corrected it fits perfectly with the satellite’s passing. This was actually a NOSS (Naval Ocean Surveillance System) satellite formation, having three satellites in close proximity to each other. Normally these satellites are relatively dim to the unaided eye, but on occasion they brighten sufficiently to be easily seen in a dark sky.
8 December 2005, 19:46 – Volda (UFO)
Two women from Sæbø, south of Ålesund, sent UFO-Norge a report about a phenomenon they observed at Volda: *From the fjord at Volda an orange ball of light was flying. I first thought it might be a flare or emergency rocket, but it started floating towards the roof of a nearby building, looking more like a street light. Then another ball of light came from the same direction. People around me started to take notice. I stopped the car, shut the engine off, and opened the window to listen for any sounds. It was soundless. Then, the two balls of light started moving along, with the same distance with respect to each other. Then yet another ball of light, the third, came along and placed itself next to the two others – making the same motions as them. The light then disappeared from the first two lights, then the third went out as well.*

She photographed the last ball of light with a Sony Ericsson cell phone (1.3M Pixels).
THE UFO PHENOMENON IN NORWAY – A CANDID REVIEW

1909 to 1981
The basic figures the reader must keep in mind before entering further into the analysis section are these:

Total cases collected for Norway 744
Non-Hessdalen-origin 265
Hessdalen-origin 479

As the reader will realize at a later stage, any analysis of the UFO reporting in Norway must divide the reported events into two parts: up to 1982 and after 1982. The year 1982 was the commencement of the copious sightings in the Hessdalen valley. Speaking from the records of the present theme catalogue, UFO reporting was rather poor in Norway from 1947 to 1971 (with only one potential true UFO, in 1968). The exception within this period was marked by 1954, when a few photographs of the Sun during the total solar eclipse of June 30 produced curious flying saucer-looking images that were just instances of the optical phenomenon called lens flare.

Reports in general were scarce during the fifties and sixties. The probable reason behind this is that the first local UFO groups in Norway were organized only in 1967-1968, with national groups forming from 1971-1972. We suspect we would find many additional sighting reports if newspaper microfilm files were systematically searched.

On January 1, 1972, a Russian spacecraft decayed over Norway generating plenty of sightings and several pictures. Overnight, it attracted people’s interest to the heavens, and astronomical confusion increased considerably since then. We feel UFOs also became more newsworthy for the media, and this media curiosity expanded in 1973 (with part of the cases being observational mistakes by a single individual, J.-I. Mellingen), where aircraft and astronomical misidentifications were common. 1974 contributed even more reports, several of them due to the extended flight of a stratospheric research balloon over the country, and part of the others due to the continuing supply of cases by “repeater” eyewitness and photographer K. Christensen.

A less intensive peak appears in 1976-1978 (with more hoaxes by KC, misinterpretations of many kinds, and fakes as well). Obviously, the phenomenon as a social myth was established in both the society and the media in Norway. Calm returned in 1978-1980, yet the average rate of incoming reports is two-fold that of the decade of sixties.

1981 shows a miscellaneous set of explained reports, but late that year, witnesses claimed to see frequent UFOs in Strømmen, a suburb of Arendal. Moved by the wave of reports, some ufologists visited the place and snapped many photos of everything moving and took them to be flying UFOs. Not happy with this procedure, they had the bright idea to leave the camera and operating
instructions for using it to a man who was key in UFO spotting. Naturally, in the following days a vast number of pictures was obtained.

In the following Figure 1 we show the annual distribution of total incoming reports 1947-1981 (87 events), as well as the segment of UFO cases therein (16 events).

In order to see if there is a parallel pull or drive between UFO and IFO reporting, we have computed the correlation coefficient between the two series. It is 0.43, which shows a positive and significant correlation. Also, we have performed a time-series regression, and the estimated coefficient value found (0.16) is positive. In addition, and according to the $t$ test statistic (with probability value 0.01), the null hypothesis that both series are unrelated can be rejected at a 5% significance level.

Looking now at the possible true UFO cases, with just a single “insufficient information”-graded report in 1968 as the first precedent, actual UFO reports of the photographic kind only started in Norway in the decade of the seventies, with one double event in 1972 where neither the slides nor film have ever been located, one in 1974 (anonymous), four in 1976 (an interesting movie, a photograph without background information, a poor picture, and a valuable photographic record by scientists that was never studied and was eventually lost), one in 1977 (a weak case), one in 1978 (another of those pictures without supporting information), and one in 1980 (nothing showed up in the developed
photos). Up to 1980 the situation is dismaying as far as UFO reality is concerned.

In 1981, the five dates when film rolls A (by Arne P. Thomassen) and B to E (by the afore-mentioned man from Strømmen) were taken are noted as “UFO” in our catalogue simply because we do not have enough information to analyze every photographic event of this series of pictures. On the other hand, there is no indication that this phenomenon was recurrent in time, and everything points to the explosive mixture of someone eager to see UFOs and who has a camera at hand.

One would expect to find good UFO reports by the time flying saucers were seen all over the world, according to what the newspapers published, since the phenomenon exploded in the late forties, or in the fifties, when the movie industry produced plenty of films on Martians, aliens and flying saucers, or in the sixties or seventies when several remarkable UFO waves had already occurred in several nations. But this is not the case.

UFOs are a popular phenomenon since June 1947, as everybody knows. In Norway, however, we have to wait at least 30 years to have the first unexplainable photographic event which at least follows two parameters, it is well documented and it appears strange-looking. This does not happen until February 20, 1976. Because in previous ones, like January 21, 1968, the available information is so poor that general credibility is near zero, or like March 17, 1972, with photos and film that no one has ever seen, or like December 1, 1974, when the only source is anonymous press information.

With a UFO phenomenon manifesting generally since the late forties, it is quite suspicious that true evidence in the form of a genuine picture took so many years to arise. And it is not because witnesses waited until UFOs become socially accepted, because there are in Norway photos even predating the 1947 sighting of Kenneth Arnold. Yet all photographic documents have mundane explanations, until only recently; therefore we are tempted to theorize that it is probably more linked to modern camera sophistication and techniques at hand (it makes fakes more difficult to track) than to actual activity of unknown physical phenomena randomly produced in the environment.

It is not unexpected that after a profusely-publicized “wave” of UFO apparitions in Arendal, it was followed by another crisis that would become a long-term episode: Hessdalen was born... or rediscovered. Even some of the first eyewitnesses and photographers of the Hessdalen phenomena were those who were involved in the Arendal “UFO” sightings.

1982 to 2005
The history of UFO sightings in Norway can be divided into two periods, before and after the public appearance of the Hessdalen phenomena. It is quite evident that the notoriety of the Hessdalen events has influenced the flux of UFO reports in the country. Figure 2 shows all the cases reported between 1982 and 2005, divided by Hessdalen and non-Hessdalen origin.
From 1947 to 1981 (35 years), there were 87 (explained and non-explained) reports computed in Norway, or an average of 2.5 per year. However, from the start of the Hessdalen phenomena, and all the publicity attached to it, there were 177 such cases in the following 24 years, an annual average of 7.4, three times as much.

In the annual plot of cases we observe an increasing tendency in the reporting frequency of general cases in line with the volume of incoming Hessdalen events. This pull effect is confirmed when the correlation coefficient is computed, as it is as much as 0.57. Alternatively, the increase in non-Hessdalen cases in the recent years may simply be due to the opening of UFO-Norge’s web site in 2001, where witnesses report their experiences (and photographs) online. Probably a combined effect is in force here.

This table summarizes the non-Hessdalen cases:

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>UFO</th>
<th>IFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1981</td>
<td>88</td>
<td>16</td>
<td>72</td>
</tr>
<tr>
<td>After 1981</td>
<td>177</td>
<td>39</td>
<td>138</td>
</tr>
<tr>
<td>TOTAL</td>
<td>265</td>
<td>55</td>
<td>210</td>
</tr>
</tbody>
</table>

**Signal-to-noise ratio**

An analysis on the relationship between UFO and IFO reports was performed in 2006 with 5,200 cases from the 13 main countries in FOTOCAT records (8). It
showed that the worst ratio was Australia with 75/25 (3.00) and the best was Spain with 41/59 (0.69). If we query the latest FOTOCAT database (8,300 reports), we find a 60/40 average ratio, or 1.50.

The work by Allan Hendry with 1,300+ sightings concluded that the comparison rate of unexplainable to explainable reports was 10/90 (0.11) (9). Recent disclosures from the French GEIPAN database note that the ratio 25 to 75 (0.33) applies to a set of 6,000 eyewitness reports (10). Therefore, a rate from 0.10 to 0.30 would appear to be a standard metric for signal-to-noise ratio. In other words, this can be considered a measurement of an acceptable level in case analysis.

Assuming that imaged UFO reports do not deviate from all-category, general UFO reports, we now consider figures from the set of non-Hessdalen cases in Norway. The actual ratio is 21/79, or 0.27, which seems to show a good level of case evaluation.

**Weight**

Regarding now the pure UFO cases (unexplained), there were 39 cases in this period, less than two cases per year, but triple than in the prior term of 1947-1981. We have examined the potential validity of the cases by using a very simple matrix, where levels of Documentation (how well-investigated a case has been) and Strangeness (how anomalous the phenomenon looks) are assessed as Low (0 value), Medium (1 value) and High (2 value). The addition of both values results in what we call Weight, and it can be Low Weight (0 and 1 values), Medium Weight (2 value) and High Weight (3 and 4 values).

![Weight Matrix]

We have assigned values for the two parameters in the 55 UFO (unexplained) cases in the sample (non-Hessdalen), and the resulting Weight data can be split as follows:

<table>
<thead>
<tr>
<th>Weight</th>
<th>Total</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 1981</td>
<td>16</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>After 1981</td>
<td>39</td>
<td>13</td>
<td>15</td>
<td>10</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
40 of the events in this group of best cases (or 73%) have a low weight, this is, these are poorly documented and present a low anomalistic profile. 14 cases (or 25%) have a medium weight (either 2 middle value or 1 high and 1 low value), and only 1 case (or 2%) has a high weight (1 high and 1 medium value).

In other words, there are 15 cases in the sample that have the intrinsic elements to demand a scientific scrutiny. However, the fact that reports softly adapt to the reporting trend of the Hessdalen cases, adds a suspicious variable to the equation.

In order to compare the magnitudes of both UFO (55) and IFO (209) cases from 1947 to 2005, we have plotted a graph where reports are grouped by decade. **Figure 3** shows a continuing upwards tendency of explained cases, while unexplained events – which shared this trend until the nineties – tend to decrease, probably due to sharper research tools used by present-day ufologists.

![UFOs vs IFOs By Decade, 1947-2005 (Non-Hessdalen)](image)

**Time of sightings**
From 265 non-Hessdalen cases, the exact hour of the day is only known for 150 incidents, 31 for UFO and 119 for IFO events, 56% and 57%, respectively. **Figure 4** distributes the number of cases along 24 hours. Main similarities and differences are found in the following summary table:
Sharpest peak  UFO  IFO
Period       19 to 21 hours  22 to 01 hours
Number of cases 12  41
Percent of total  39%  34%

Wider peak  UFO  IFO
Period       18 to 00 hours  18 to 02 hours
Number of cases 20  72
Percent of total  65%  61%

As the correlation coefficient evidences (0.27) both plots relate to each other, however there are also some remarkable variances as well, probably due to the size of the samples. UFO events peak some 3 hours earlier than IFO events, if this has any meaning. Yet in both groups of cases, most of the events happen in the same time period of 7 or 9 hours that goes from late evening to early morning).

Duration
For 265 non-Hessdalen sightings, the duration of the observations is known in 105 cases, 40% of total. The tabulation of cases by percentage, for three given time intervals, follows:

<table>
<thead>
<tr>
<th>Duration</th>
<th>UFO</th>
<th>IFO</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 60 sec</td>
<td>15%</td>
<td>19%</td>
<td>short-lived occurrences</td>
</tr>
<tr>
<td>61 to 300 sec</td>
<td>55%</td>
<td>26%</td>
<td>medium-lived occurrences</td>
</tr>
<tr>
<td>Over 300 sec</td>
<td>30%</td>
<td>55%</td>
<td>long-lived occurrences</td>
</tr>
</tbody>
</table>
UFO reports tend to be medium-lived phenomena, mostly existing from 1 to 5 minutes, while IFO reports seem to be long-lived phenomena, mainly over 5 minutes.

**Figure 5** plots the distribution of duration for both sets of data.

![NON-HESSDALEN, DURATION CURVES](image)

**Repeater Witnesses**

Usually, one may see one alleged UFO or snap one photo of it in a lifetime. But there are people who seem to be blessed by good fortune to have observed or photographed UFOs several times. In our essay, these “repeaters” are those who claimed to have photographic evidence of UFOs more than 2 times.

In any analysis of UFO sightings in Norway, the distinction between Hessdalen and non-Hessdalen cases is noteworthy. It also applies to this subset of cases. The concept of repeater is, at the end of the day, related to the prank or the fake (11). But this cannot be applicable to the Hessdalen sightings, because the specifics of the area’s phenomenology required that reduced groups of people conduct field missions, with the result that a few names achieved several photographs or videos over the years. Of course, there are also persons who have faked photos systematically in Hessdalen, but we will center on the non-Hessdalen chapter of events.
Repeaters produce very many sightings (photographs or videos in our case). The criterion we have followed to include those cases in our catalogue is simple: we include them when we have an image for the alleged report.

Firstly, we have Kjell Christensen (died 2002), with 39 entries from 1972 to 2000 in the county of Akershus (#02). This gentleman is responsible for dozens of “UFO” photographs. In our view, he is only one source of faked imagery or images of strange-looking, normal occurrences. Or, as the British expert Martin Shough has aptly put it:

_The stills are mostly unintelligible blobs that could be almost anything. In a few cases an explanation is clear. These include a bird, a dramatically-defocused blade of grass or similar inside the lens focal distance, some lens flares, a possible rain droplet or bubble defect on a glass window, and probable emulsion damage on old negatives/prints. In other cases it appears that fortuitous patches of shadows, etc. are being interpreted as anomalous. In short, I see nothing of any value in these pictures (12)._

Gunnar Pedersen has taken hundreds of videos from 1984 to 1993 from Voss, in the county of Hordaland (#12), and we have four of his cases in our catalogue, always due to the filming of aircraft. An un-named man from Strømmen (#09), known for seeing UFOs regularly, was left with a camera to capture UFOs, and he did it four times in November-December 1981 from his house. In the first days of April 1973, Jan-Ivar Mellingen had three instances of honest misinterpretations of aircraft and astronomical bodies in the county of Vestfold (#07). Knut Aasheim captured on film three times objects he never saw visually, in 1986, 1998 and 1999, twice of them in Eidsvoll (#02). Finally, a witness by the initials of G.A. took UFO pictures three times (it was in reality the planet Mars) at the end of July and early August 2003 in Sørum (#02).

**Identified Flying Objects Photographed**

In the group of 265 Non-Hessdalen reports, there are 210 classed as IFOs, or explained. There are multiple conventional causes to solve UFO incidents. Those found in Norwegian cases follow:

- **46** - Astronomical: Venus [20], Mars [9], Jupiter [5], the moon [4], Sirius, Pollux, planets and stars. People are not familiar with the heavenly bodies in the firmament.
- **32** - Fakes, hoaxes by people, or journalistic fakes.
- **26** - Aircraft, aircraft condensation trail, flares.
- **18** - Balloons, including high-altitude, stratospheric or simple paper balloons and kites.
- **14** - Lens flares, including lunar or solar.
- **13** - Clouds, lenticular, noctilucent, polar stratospheric.
- **13** - Camera artifacts, camera flash reflected on environmental dust (“orbs”) or on snowflakes, water droplets on camera lenses.
- **12** - Birds, insects.
- **9** - Development flaws, film flaws.
- **7** - Reflections, flash reflected on flying bug, lamp reflected on window, sun reflected on airplane window, reflection on ring, etc.
- **3** - Bolide fireballs.
- **3** - Re-entries.
3 - Rocket, satellite.
11 - Other: beacon on mountain, crane, fireworks, lightning, Moon dog, searchlights, smoke ring, sunset/sunrise.

Figure 6 assembles the various types of mundane explanations into seven major groups:

- Aerospatial events (man-made aeronautics and astronautics): 50 (24%)
- Astronomical events: 50 (24%)
- Photographic camera, process-related events: 43 (20%)
- Fake: 32 (15%)
- Meteorological and atmospheric events: 16 (8%)
- Biological events: 12 (6%)
- Miscellaneous: 7 (3%)

Other features
Format: the 265 cases are divided between 10 films (cine), 197 pictures (or series of pictures), and 58 cases of video footage. For the 55 UFO cases, we have 2 films, 42 pictures (or series of pictures) and 11 videos.

The FOTOCAT standard spreadsheet contains a column to gather information on special features associated to the events. 57 reports contribute such features. It does not come as a surprise to realize that in 44 of the 210 explained photographs (21%) the cameraperson did not see anything strange at the time of taking the photograph, as the weird image just appeared later. Additionally, in 4 instances nothing appeared in the film after a witness
observed a phenomenon in the sky and shot a picture. In another example, the anomaly was recorded by a Webcam.

As far as UFO reports are concerned, in 6 cases the camera was unable to fix the image of the alleged unidentified flying object. There is also one instance when the anomalous object was recorded by an all-sky camera. Finally, there is an example where the picture negatives were not returned by the Defense authorities.

FOTOCAT is an international project, and the United States of America is the major case contributor, which explains why a specific column registers if the event was filed by the USAF Project Blue Book (an agency closed in 1969). Only two Norwegian photographic cases were in the BB archives: September 19, 1952 (the picture taken by a journalist during a NATO military exercise, that looks like a balloon), and July 24, 1957 (a spectacular lens-shaped, fading luminosity that was finally solved as the reflection produced by a ring).

**Geographical Distribution**
An introduction about the Country
Norway is situated in the far north of Europe and it occupies the western portion of the Scandinavian Peninsula. Norway is bordered by Sweden, Finland, and Russia, and its extensive coastline is home to the famous fjords. The rugged coastline, broken by massive fjords and thousands of islands, stretches over 25,000 km. Norway shares a 2,542 km land border with Sweden, Finland, and Russia to the east. To the west and south, Norway is bordered by the Norwegian Sea, the North Sea, and Skagerak. At 385,155 km² (including Jan Mayen and Svalbard), Norway is approximately the size of Germany, but much of the country is dominated by mountainous terrain, with a great variety of natural features caused by prehistoric glaciers and varied topography. The most noticeable of these are the fjords, deep grooves cut into the land flooded by the sea following the end of the last ice age.
The land is mostly made of hard granite and gneiss rock, but slate, sandstone and limestone are also common, and the lowest elevations have marine deposits. Due to the Gulf Stream and prevailing westerlies, Norway experiences warmer temperatures and more precipitation than expected at such northern latitudes, especially along the coast. The mainland experiences four distinct seasons, with colder winters and less precipitation inland. The northernmost part has a mostly maritime sub-Arctic climate, while Svalbard has an Arctic tundra climate.

There are large seasonal variations in daylight. In areas north of the Arctic Circle (66° 33' N), the summer sun may never completely descend beneath the horizon, hence Norway's description as the "Land of the Midnight Sun." During the summer, inhabitants south of the Arctic Circle still experience sunlight during nearly 20 of the day's 24 hours.

As of 2005, Norway's population of 4.6 million is growing by 0.73% per year. Most Norwegians are ethnic Norwegians, a Nordic/North Germanic people, while small minorities in the north are the Sami, Romani and Kven.

Norway is divided into 19 first-level administrative regions (counties) and 431 second-level municipalities (you will notice that county #13 is missing. This is Bergen, which was assimilated into the county of Hordaland in 1972). In addition, there is Svalbard, county #21 in our paper. This is not a separate county, but an area administered by Troms county. We have chosen to designate Svalbard with its own number in this paper because of its geography.
The distribution of film cases in Norway, for 265 non-Hessdalen reports, is the following:

<table>
<thead>
<tr>
<th>COUNTY #</th>
<th>COUNTY NAME</th>
<th>REPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Øsfold</td>
<td>10</td>
</tr>
<tr>
<td>02</td>
<td>Akershus</td>
<td>61</td>
</tr>
<tr>
<td>03</td>
<td>Oslo</td>
<td>5</td>
</tr>
<tr>
<td>04</td>
<td>Hedmark</td>
<td>15</td>
</tr>
<tr>
<td>05</td>
<td>Oppland</td>
<td>22</td>
</tr>
<tr>
<td>06</td>
<td>Buskerud</td>
<td>20</td>
</tr>
<tr>
<td>07</td>
<td>Vestfold</td>
<td>9</td>
</tr>
<tr>
<td>08</td>
<td>Tele-Mark</td>
<td>8</td>
</tr>
<tr>
<td>09</td>
<td>Aust-Agder</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>Vest-Agder</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Rogaland</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Hordaland</td>
<td>20</td>
</tr>
<tr>
<td>14</td>
<td>Sogn og Møre og</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>Romsdal</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>Sør-Trøndelag</td>
<td>11</td>
</tr>
<tr>
<td>17</td>
<td>Nord-Trøndelag</td>
<td>11</td>
</tr>
<tr>
<td>18</td>
<td>Nordland</td>
<td>10</td>
</tr>
<tr>
<td>19</td>
<td>Troms</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>Finnmark</td>
<td>8</td>
</tr>
<tr>
<td>21</td>
<td>Svalbard</td>
<td>2</td>
</tr>
<tr>
<td>UNKNOWN</td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

**UFOs and Demography**

We have tested some correlation attempts between total number of reports (excluding Hessdalen) and demographic variables (surface, population, and population density) at the county level. We have chosen to take demographic values for the year 1992, as it is the central year in the period 1980 to 2005, which covers 90% of all collected cases.

Figure 7 plots the number of inhabitants per km² and the number of reports by county (in decreasing order as to population density).

In principle, we would expect a positive correlation: the more population, the more reports. However, the calculated correlation coefficient is negative, yet quite low, -0.08. The anomaly is county #02, where 37 out of 61 reports come from a single photographer, Kjell Christensen! If we would eliminate his cases from the tally, the resulting correlation becomes positive, yet not high: 0.26. However, if we compute the number of IFO reports versus population density (having eliminated the KC effect), then a higher correlation coefficient of 0.36 appears. It confirms a basic relationship between size and population for raw, explained reports.

On the other hand, a computation of UFO reports and population indices gives a negative correlation of -0.23. It seems to indicate that unexplained UFO observations are unrelated to population metrics.
THE LIGHTS OF HESSDALEN

The beginnings

Within Norway’s county #6 (Sør-Trøndelag) lies the valley of Hessdalen. It is there where, quite publicly since 1981, there have manifested or developed massively strange phenomena that have been able to be recorded by many automatic instruments other than the human eye, like photographic and video cameras, radar, etc.

The start of the Hessdalen phenomenon can be traced to 19th century. We have knowledge of observations dating from 1811 (13), 1870 (14, 18), 1895 (14, 19), 1943 (14, 16-18), 1945 (21), and 1946 (14, 20). UFO-Norge report archives also have sporadic reports from the area during every decade thereafter, but not in any great number compared to other areas of Norway. It was not until the autumn of 1981 when the news media started receiving reports of “lights” in the Hessdalen valley. Especially during November-December 1981 the reports were numerous (16-17, 22). It became clear that a flap was in the making, and the media frenzy was high. The observations continued on into 1982, and it didn’t seem to subside in the least. During 1983, representatives from UFO-Norge and UFO-Sverige decided to start a separate investigation program. On June 3, 1983 Project Hessdalen was announced, and field work was initiated on January 21, 1984 (15). This continued until February 26, 1984, with a similar stint during February 1985 (23). The rest, as they say, is history.
By their nature, reports on light phenomena within the Hessdalen valley form a special subset of cases, and for this reason they are analyzed separately from the rest of Norway cases (including other events from Sør-Trøndelag that are far from Hessdalen).

This is a basic set of figures for Hessdalen photographic cases compiled in the present monograph:

<table>
<thead>
<tr>
<th>IFO</th>
<th>HP*</th>
<th>Total</th>
<th>AMS**</th>
<th>Non-Hessdalen</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>109</td>
<td>370</td>
<td>479</td>
<td>355</td>
<td>265</td>
<td>744</td>
</tr>
</tbody>
</table>

(*) Hessdalen Phenomena- see terminology below (includes M.Teodorani’s “UFO” dated August 13, 2000)
(**) Automatic Measurement Station- see terminology below

This paper also includes brief case abstracts for reports from the Hessdalen area, except for AMS records, which are listed (as an exception, explained AMS cases include the reason why). It is beyond the goals of this paper to provide any exhaustive bibliography on Hessdalen. We leave it to specialists in Hessdalen reports. All the pertinent literature we are aware of, concerning or directly related to actual sightings of the Hessdalen Phenomena, has been included in the reference section of the catalogue (see Appendix).

We believe we have made some advancement in the organization of the Hessdalen sighting file, but it must be improved. We trust this paper becomes an added stimulus for other researchers to complete this task.

The Hessdalen cases have very distinct features, compared to the general UFO phenomenon, either in Norway or elsewhere. Basically, it is their frequency and their geographically-restricted environment that makes it a singular class of phenomenology.

**Hessdalen in figures**

The following table summarizes the Hessdalen data:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>IFO</th>
<th>HESSDALEN PHENOMENA</th>
<th>TOTAL</th>
<th>Memo: AMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>3</td>
<td>27</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>1983</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>1984</td>
<td>0</td>
<td>25</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>1985</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>1986</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1987</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1988</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1989</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1990</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1991</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1992</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1993</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1994</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>1995</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1996</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>1997</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
Initiated in 1982 with the article by Leif Havik (7) and peaking in 1984 with the effect of the first Hessdalen project, there is no case incidence from 1986 to 1993, to then increase at a fantastic rate from 1998 to 2002 because of the effect of the data displayed by the on-site automatic station and the Italian EMBLA missions. Cases drop to zero in 2004 (there are no records from the live monitoring system installed).

If we review the general trend of reports from 1982 to 2005 in Norway, we see that 73% of reports proceed from the Hessdalen area: from 656 cases in total within the period, 479 are Hessdalen and only 177 are non-Hessdalen. Figure 8 shows the distribution of all cases compared to the predominant input from Hessdalen.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>6</td>
</tr>
<tr>
<td>1999</td>
<td>18</td>
</tr>
<tr>
<td>2000</td>
<td>32</td>
</tr>
<tr>
<td>2001</td>
<td>38</td>
</tr>
<tr>
<td>2002</td>
<td>7</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>109</td>
</tr>
</tbody>
</table>

Figure 8
Hessdalen coverage for the catalogue we have compiled has been fed from input collected from several sources. As expected, the official site of the Østfold University College's Hessdalen Project and project leader Erling Strand, have been a major source for photographic records of sightings in the area: http://www.hessdalen.org/index_e.shtml

Also, the site of the Italian Committee for Project Hessdalen (CIPH in its Italian acronym), and its director, Renzo Cabassi: http://www.itacomm.net/PH/

And the various EMBLA mission reports (and some of their scientific leaders, e.g. Dr. Massimo Teodorani): http://www.hessdalen.org/reports/EMBLA_2002_2.pdf

As the source section of the final catalogue shows, we have made a quite complete literature review, if not exhaustive. Nevertheless, on occasion, data on actual Hessdalen Phenomena reports is limited, confusing and unchecked, and errors may certainly have arisen in the process. We hope future research will correct these and will make the sample as complete as possible.

The Hessdalen valley seems to stand within a phenomenological soup. The area naturally produces light displays in a quite recurrent manner, like the bubbles in a pot of boiling water, apparently generated at random in the environment. Light phenomena manifest on a continuing basis in the valley, it seems. For Professor Teodorani, one of the scientists who have studied the phenomena more in depth, most of the lights (on the ground and in the air) are geophysical in nature (24-25). Only once did the Italian astrophysicist dare to give the term “UFO” to the light he photographed (it was on August 13, 2000). We wonder, however, if this particular sighting is but a part of the same kind of light anomaly, in other words, part of the same continuum, not a new, differentiated phenomenon. To the authors, this seems to be a reasonable qualitative conclusion, and this event is added to the HP category of cases.

Anyway, it is not within the scope of this paper to review the various models or theories presented to explain the Hessdalen Phenomena.

Given the existing huge database of recorded sightings in Hessdalen, we guess that local researchers may be in a position (through triangulation or other measurements) to know where the light phenomenon emerges more frequently. We believe that future on-site mission camps should be installed precisely on the estimated generation areas, in order to allow “close encounters” with the lights.

The phenomena at Hessdalen have attracted the attention of numerous scientists worldwide and real scientific work (field study, data analysis, theory and modeling) has been accomplished, probably more intensely than in any other aspect of the UFO problem. As a consequence, a vast number of inestimable papers and articles have been produced. The first scientific-oriented, sensible paper produced on the Hessdalen lights still remains as one of the best reports on this local anomaly: Project Hessdalen 1984. Final Technical Report, authored by Erling Strand (15). Two major collections of
references are to be found in two noteworthy compilations, by Strand (26) and Cabassi (6).

The nature of the Hessdalen empirical episodes is open. “Earth lights” of geotectonic origin (27-28), a form of ball lightning (29), plain UFOs (30), or simply assorted natural phenomena and misinterpretations (18).

The future looks promising. For example, new hardware-oriented developments to achieve better images of the Hessdalen lights is under way by the Italian Committee for the Hessdalen Phenomenon (ICHP), under the capable leadership of Renzo Cabassi and the scientific coordination of Massimo Silvestri, to be used on site in future missions (31).

On Terminology
According to criteria suggested by Erling Strand (32), all unknown observations of lights in the Hessdalen area reported on their official site, including the alarm pictures and video clips generated by the automatic measurement station (AMS), will be termed “Hessdalen Phenomena.” This term (HP in acronym) has been already used in scientific papers and it is a legitimate and well-established choice. By extension, other so-called UFO sightings in the area will also be generally termed HP, as a category within the unexplained events. However, the term UFO will not be applied here, because of its outer space connotations.

As an exception, all the unknown Hessdalen sightings developed by the summer EMBLA teams, where Dr. Massimo Teodorani was involved, have been termed as “Plasma Geophysical Phenomenon,” as this is what the Italian astrophysicist understands they really are. These cases will be considered to be a category within the IFO or explained events. These pulsating lights were lasting at least one minute by alternating on and off phases, sometimes of several minutes’ duration. These are not “UFO,” but a geophysical phenomenon triggered probably by piezoelectricity. They are very similar to light phenomena (typically pulsating lights very close to the ground) reported many times in Marfa, Texas, or in the Brown Mountains and other places in the world. Of no interest for ufology, but only for geophysics and atmospheric physics (33). [Note: Dr. Teodorani has an exception to his own rule, one that we respect: his own visual and photographic sighting of August 13, 2000, which he classes as a true UFO.]

Review of AMS Events
On August 7, 1988, Project Hessdalen set up an Automatic Measurement Station (AMS) with the purpose to record in photograph or video any alarm sighting discovered by the system. Colloquially called the “Blue Box,” it is located in the northeastern part of the Hessdalen Valley, in a place called Vårhus. For technical description, detailed location and station plans, see: http://www.hessdalen.org/station/ , http://www.hessdalen.org/station/local.shtml and http://www.hessdalen.org/station/plans.shtml The Station was taken down on November 7, 2003, due to high telephone bills. Since December 10, 2006, a new camera system has been in place. It submits a new picture every second to an on-line internet system: http://www.hessdalen.org/station/now.shtml Unfortunately, the system does only streaming, it does not record the images.
We have done our best to scrutinize all existing records on the PH website in order to catalogue all alarm incidents recorded during the years the AMS was operative. We have found a number of difficulties in order to determine, for instance, when an event starts and stops and when it continues over the following alarm shots. We have had to make our decisions and inferences, and we hope we do not prove wrong.

In some cases, for example, two contiguous pictures from the Automatic Measurement Station records have been considered as one single event, or for similar images apparently following a consistent path found in two or three continuing sequences, the calculated time differential has been considered as its duration. We are not certain this procedure is accurate but it seems to be a fair approximation to extract event duration in a number of cases.

On a number of occasions in this large group of cases, a solution is found, according to the project’s analysts. However, several of these explained cases lack details as to the actual source of identification. The authors of the present paper have decided to consider as “aircraft” all airborne lights within this group of solved cases.

In some cases, camera images produced from the automatic station which are labeled unknown cannot be distinguishable – in terms of optical appearance and linear course – from other alarm pictures of airplanes. Probably this is due to distance or to equipment limitations, and we do not discuss the judgment of local analysts to leave as unexplained a number of instances of these lights (Hessdalen Phenomena).

The Østfold University College’s Hessdalen Project has generated an immense amount of material results, evidence and quantitative results. It is such a huge volume that its analysis requires a work force that is not available. The principal investigator, Erling Strand, has reported to us that he has not found time for doing the analysis of many pictures produced by the AMS. Therefore, a certain proportion of the cases under “Hessdalen Phenomena” might have a conventional explanation. In this precise context, unknown does not necessarily mean unexplainable. It may perhaps explains the fuzzy border between UFO (HP) and IFO reports in Hessdalen, at least visually-speaking.

Photographic or video recordings from the Automatic Measurement Station add up to 355 cases in total, having occurred from August 1998 to January 2003, with an irregular yearly input, as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cases</td>
<td>56</td>
<td>87</td>
<td>92</td>
<td>92</td>
<td>26</td>
<td>2</td>
</tr>
</tbody>
</table>

69 such cases (19.4%) were explained. 61 as aircraft and the remaining 8 as water, snow or a worm on or in front of the lens, sunlight, a lamp, a snow bike, the Moon, and a tractor working the fields.

286 cases (80.6%) were either not explained or not analyzed in full detail.
The duration of the events is known for 45 cases (12.6% of total), and these data are broken down as follows:

<table>
<thead>
<tr>
<th>CASES</th>
<th>TYPE</th>
<th>0-60 sec</th>
<th>61-300 sec</th>
<th>&gt; 300 sec</th>
<th>AVERAGE (sec)</th>
<th>REVISED AVERAGE (sec)</th>
<th>MINIMUM TO MAXIMUM VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>IFO (EXPLAINED CASES)</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>521</td>
<td>85</td>
<td>FROM 19 TO 4,633 sec</td>
</tr>
<tr>
<td>30</td>
<td>HESSDALEN PHENOMENA</td>
<td>22</td>
<td>6</td>
<td>2</td>
<td>71</td>
<td>35</td>
<td>FROM 2 TO 607 sec</td>
</tr>
</tbody>
</table>

Volatility of IFO (explained) cases is much more ample than the unexplained cases (Hessdalen Phenomena), both in the span of their lifetime, in the actual average, and in the revised average (the revised average excludes the two longest-lasting events in every set). HP cases are much shorter in existence than the (usual) aircraft occasionally recorded by the AMS cameras.

Fortunately, the hour-of-the-day is known in all cases. Figure 9 plots the time distribution of IFO and Hessdalen Phenomena AMS cases, showing that events peak from 19 to 23 hours in IFO cases and from 18 to 24 hours in HP cases. In fact, there is a calculated correlation coefficient of 0.57 between the two series!

There are, however, acute specific differences as well. In IFO reports, maximum peaks are at 20 and 22 hours (occurrence rate drops dramatically at 21 hours), while HP cases peak at 18 and 24 hours (while IFO cases drop to zero at 24 hours)
There is a large volume of material recorded in the form of alarm pictures between 1998 and 2003 that should be analyzed in close detail. As Erling Strand has unambiguously put it: *There is enough work to be done in Project Hessdalen to occupy two people full-time (34).* We hope that some day there will be an adequate budget for this research, which has promising opportunities to advance knowledge in scientific areas of atmospheric sciences.

**Review of non-AMS Hessdalen Events**

We have studied the AMS Hessdalen cases. Now we center on Hessdalen, non-AMS cases, this is, the pure Hessdalen Phenomena. The Hessdalen events split as follows:

<table>
<thead>
<tr>
<th>Total</th>
<th>AMS**</th>
<th>Non-AMS</th>
<th>IFOs</th>
<th>HP*</th>
</tr>
</thead>
<tbody>
<tr>
<td>479</td>
<td>355</td>
<td>124</td>
<td>40</td>
<td>84</td>
</tr>
</tbody>
</table>

(**) Hessdalen Phenomena (includes M.Teodorani’s “UFO” dated August 13, 2000)

84 UFO events reported in Hessdalen classified as unknown, sighted by human observers, and photographed or filmed.

Yearly distribution: there were 27 cases in 1982, 4 in 1983, 25 in 1984, 5 in 1985, zero from 1986 to 1993, 1 from 1994 to 1996, 4 in 1997, 1 in 1998, zero in 1999, 2 in 2000, 5 in 2001, zero in 2002, 8 in 2003, and zero in 2004-2005. Only 8 photographers were responsible for the images in 57 out of 84 events, almost 70%: Leif Havik [15], Arne P. Thomassen [12], Massimiliano di Giuseppe *et al.* [7], Arne W. Wisth [6], Erling Strand [6], Roar Wister [6], and Jader Monari [5]. Basically, events were recorded because there were people on site. One can extrapolate that nil years only correspond with lack of human research activity, not a lack of activity of the phenomena, which might be perfectly be constant in time.

Duration: the following table compares how much the HP events last in the automated (AMS) and human observer examples:

<table>
<thead>
<tr>
<th>Cases: 30</th>
<th>AMS</th>
<th>0-60 sec</th>
<th>61-300 sec</th>
<th>&gt; 300 sec</th>
<th>Average Time (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>73%</td>
<td>20%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>21</td>
<td>85</td>
<td>582</td>
<td>71</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cases: 28</th>
<th>Non-AMS</th>
<th>0-60 sec</th>
<th>61-300 sec</th>
<th>&gt; 300 sec</th>
<th>Average Time (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>39%</td>
<td>36%</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>22</td>
<td>192</td>
<td>2,327</td>
<td>660</td>
<td></td>
</tr>
</tbody>
</table>

Most of the automated HP cases are short-lived, with an average duration of 21 seconds. Over one-third of the non-automated HP cases lasted 22 seconds on average as well. Beyond this, similarities cease.

Time distribution: the 60 cases (71%) where the exact hour is known draw a near-Gaussian curve centered on 19 hours. These are examples of Hessdalen Phenomena visually observed and captured by cameras. But if we compare this hourly distribution with the one of explained reports in the largest Hessdalen set of cases, e.g., the AMS cases, then we find extremely similar curves (correlated at 0.81), as we can see in the [Figure 10](#).
At least from the viewpoint of hour of occurrence, real “UFOs” in Hessdalen (agreed to be called Hessdalen Phenomena) behave in the same manner than the IFO reports from the Automated Station.

CONCLUSIONS

The total number of cases collected for the present study is 744, up to FOTOCAT’s closing date of December 31, 2005. Hessdalen reports amount to 479 (64%) and Non-Hessdalen reports amount to 265 (36%). Within the Hessdalen reports, 355 events were recorded live by picture or video from the AMS facilities (74%) and 124 were witnessed or filmed manually by people (26%).

True UFO reports were late to appear in Norway, only since 1968. There are 16 unexplained UFO events from 1947 to 1981. However, only one seems to be amenable to scientific exploitation (the movie film taken on March 17, 1972). In the interval between 1947 and 1981, UFO reporting is linked to the influence of mundane-origin cases disclosed by the press.

The situation changes from 1982. Reports from 1982 to 2005 triple that of the preceding period. Hessdalen Phenomena start in 1982, curiously following the Arendal “flap” of late 1981. For 30 unexplained events in this period, 28 have a low weight, 10 have a medium weight and only one has a high weight (a subjective measure to anticipate potential scientific value).
210 out of 265 non-Hessdalen cases in the period 1947-2005 were solved. A 79% ratio clearly indicates a proper level of case evaluation. Studying the solution rate over time, there is an even higher rate of explained-to-unexplained reports from 2000-2005: 93%. Tools have been sharpened now!

When do events preferably occur? Only in 56.5% of cases is the exact time of the day known. It is not a surprise, because most sightings are nocturnal (both UFO and IFO in unison), but UFO reports peak at 19-21 hours while IFOs peak at 22-01 hours.

As far as duration is concerned, differences are more visible. Typical lifetime of a UFO report is 1 to 5 minutes, while IFOs usually last over 5 minutes.

20% of all non-Hessdalen photographic cases belong to subjects characterized as “repeaters.”

The portrait of identified cases reveals that 50% is due to aero-spatial and astronomical stimuli (things seen in the sky), 20% has to do with camera issues (we are dealing only with photographic cases), and 15% are fakes (people misinterpret more than lie).

Generally, IFO reports are correlated to population. But UFO reports are not.

In the niche of Hessdalen experiences, it appears this is not a novel phenomenon, as occurrences are traced back in time. The recent increase in cases in the area relates exclusively to a higher, on-site attention by researchers.

Most of Hessdalen phenomena come from an automated station installed in the valley. Typical duration of an AMS HP event is 35 sec., compared to 85 sec. of AMS IFO events. As for time of the day, although AMS HP cases peak between 18-24 hours AMS IFO reports peak between 20-22 hours, the two series do correlate significantly.

Regarding the “pure” HP reports, i.e. those observed by eyewitnesses, case input simply depends on human exposure: when people go to Hessdalen, they come out with pictures of anomalous phenomena. Lifetime does not seem a specific variable: 39% of cases last 22 sec. on average, which agrees perfectly with most of the automated records. However, the time curve of sightings is the same that the automated IFO cases display.

This study has reviewed in detail the panorama of UFO photographs from Norway. In the total collection of 744 reports, there are 55 UFO cases (7.4%) and 370 HP cases (49.7%). These are episodes that seem to elude a scientific explanation or that cannot be adequately investigated by lack of proper information. It reinforces a need for a further research effort centered on the anomalous events and the objective of this paper is to stimulate it.
Hessdalen is a major highlight in Europe. For the first time, a complete database of events is available. Our idea was to place the HP within the phenomenological spectrum of UFOs (anomalous lights and objects) also reported in Norway.

This essay has also confirmed the statement by Dr. J. Allen Hynek, when he wrote of the Blue Book files: *The majority of the photographs are indeed obvious hoaxes or misidentifications (35).*

REFERENCES


(8) Ballester Olmos, V.J., "UFO versus IFO Cases in Countries with Largest Participation in FOTOCAT," http://fotocat.blogspot.com/ entry for 2006/02/19.


(13) http://www.takktikk.no/hessdalen/forny.htm


(19) Fjeld-Ljom, July 8, 1895 (newspaper article).

(20) Arbeidets Rett, August 28, 1946 (newspaper article).


(23) http://www.hessdalen.org/index_e.shtml


(26) http://www.hessdalen.org/reports/


(33) Teodorani, Massimo, personal communication to Vicente-Juan Ballester Olmos, January 19, 2007.

(34) Strand, Erling, personal communication to Vicente-Juan Ballester Olmos, March 1, 2007.


**ACKNOWLEDGEMENTS**

We express our gratitude to the following researchers and academic consultants for providing us with needed documentation or technical expertise: Manuel Borraz Aymerich, Renzo Cabassi, Andrés Duarte, Ole Henningsen, Dr. Donald A. Johnson, Anders Liljegren, Dr. Jonathan McDowell, Alan Pickup, Martin Shough, Erling Strand, Clas Svahn, Dr. Massimo Teodorani, and Juan Carlos Victorio Uranga.

Also thanks are due to Laura Ballester Miquel for assistance in graphs and mathematical correlations. To Heriberto Janosch González for help with the pictures. To Richard W. Heiden for proof-reading and suggestions.

**AUTHORS’ STATEMENT ON IMAGE COPYRIGHT**

Copyright of UFO pictures, many of them quite old and coming from different origins, is not easy to track. The authors of the present compilation have invested special interest in noting the ownership whenever possible. We want to inform the owners of any of these photographs that the intention of this paper is educational, not commercial. If anyone disagrees with the publication of what could be his or her property, please let us know and we will immediately remove the picture from any next edition.

© Vicente-Juan Ballester Olmos and Ole Jonny Brænne, 2008.
APPENDIX: NORWAY FOTOCAT SPREADSHEET

We hereby present the full catalogue spreadsheet for Norway. The FOTOCAT database consists of a basic Excel file with a total of 23 standard data columns, whose structure is described in the following lines. By default configuration, the listing prints in 3 pages.

Page #1
The 7 initial columns are the control and housekeeping codes of the catalogue, or they contain information only relevant to the Spanish section of the compilation, therefore these are blanked in this version. On its place, three columns have been added to note values for Documentation (from 0 to 2), Strangeness (from 0 to 2) and Weight (from 0 to 4), only for the ultimate 55 non-Hessdalen, UFO cases.

Date
8<sup>th</sup> column. The date is expressed as Day/Month/Year.

Approximate Date
9<sup>th</sup> column. A triple column denotes Y for approximate year, M for approximate month, and D for approximate day.

Time
10<sup>th</sup> column. The hour is indicated. When time is not known, Day, Night, etc. is entered.

Description
11<sup>th</sup> column. Generally, the entry “UFO” here describes the situation where no reasonable explanation for the event is known, in the compilers’ judgement. In all other cases, the type of explanation is described. In Norway, unexplained events reported in the Hessdalen valley are described as Hessdalen Phenomena.

Explanation
12<sup>th</sup> column. When the registered event is explained the entry OK appears.

Location (Country).
13<sup>th</sup> column. Municipality (sometimes preceded by any local village) and country.

Page #2

Nation Code
14<sup>th</sup> column. It shows the nation’s code according to an international alpha ISO code of 3 digits. In this case, NOR denotes Norway.

Local Geographical Codes
15<sup>th</sup> column. Official codes to note further geographical units. In the case of Norway, it is the County (from 01 to 21).

Photo, Film and Video
16<sup>th</sup> column. It shows the original format of the image, whether a photograph, film (movie) or video recording.

Photographer/Cameraperson
17<sup>th</sup> column. It gives the full name of the photographer or cameraperson.

Media (for professionals)
18<sup>th</sup> column. When the author of the image is associated with a newspaper, TV channel or other media, it notes the name of the media involved.
**Duration**
19th column. The extent or lifetime of the event is expressed in seconds.

**Special Photo Features**
20th column. It includes any singular data of the photography or about the conditions where the pictures were made, like infrared or special sensibility film, stereo or 3D photo, automated web camera or station, gun camera, object unseen by photographer, blank photos, spectra or magnetic recording, underwater, radar echo, night-vision system, etc.

**Blue Book Files**
21st column. The sign X here indicates that the event was recognized by the USAF Project Blue Book (closed 1969).

**Page #3**

**References and Sources**
22nd column. It collects all references, sources and bibliography known by the authors to document the events.

(A 23rd column, not printed here, describes in words the full date and provides specific information for cases where the date is approximate.)

**Please go now to the full Norway catalogue spreadsheet:**