

Sighting of a « light phenomenon» in the Hessdalen valley (Norway)

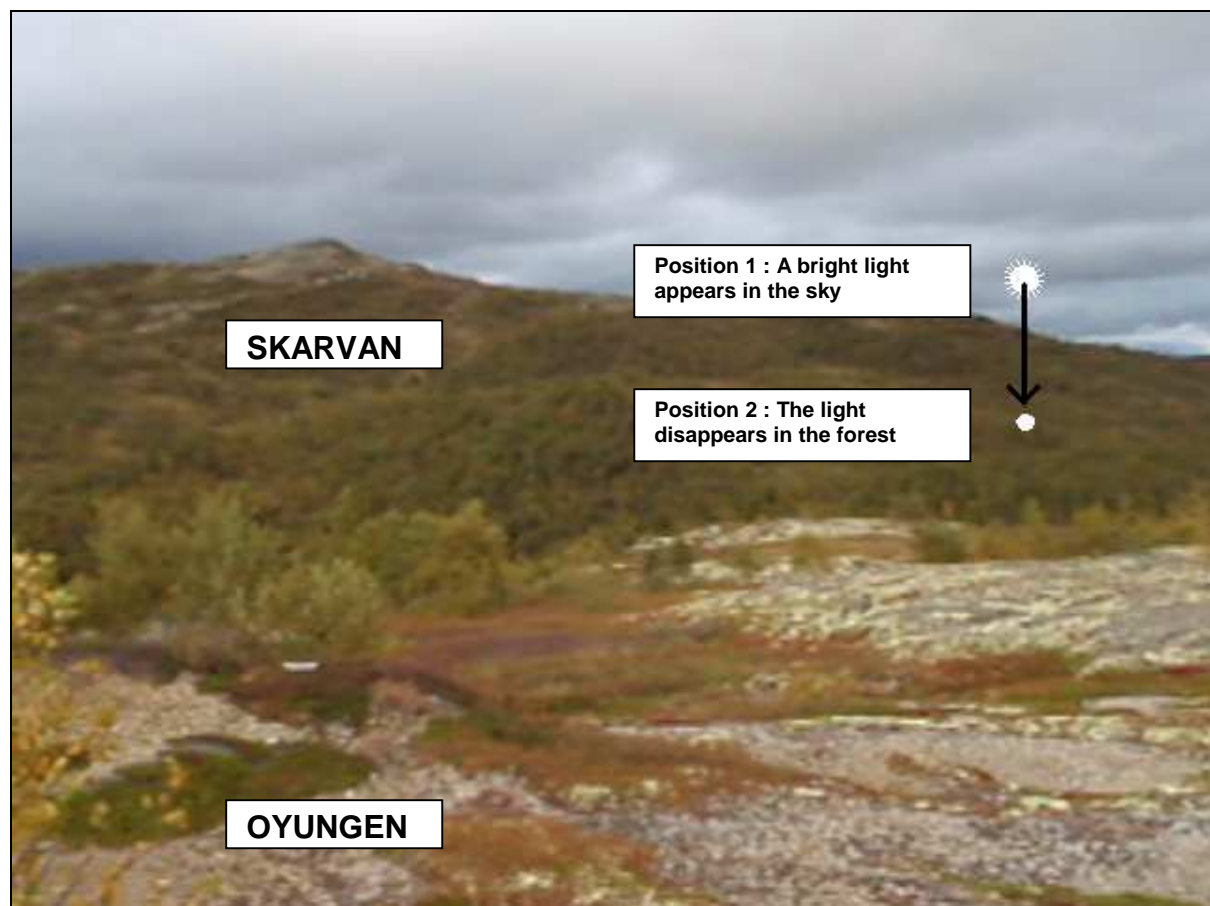


Photo A – Simulation of the sighting
(Note: this photo was not taken on the day of the sighting)

1) General information

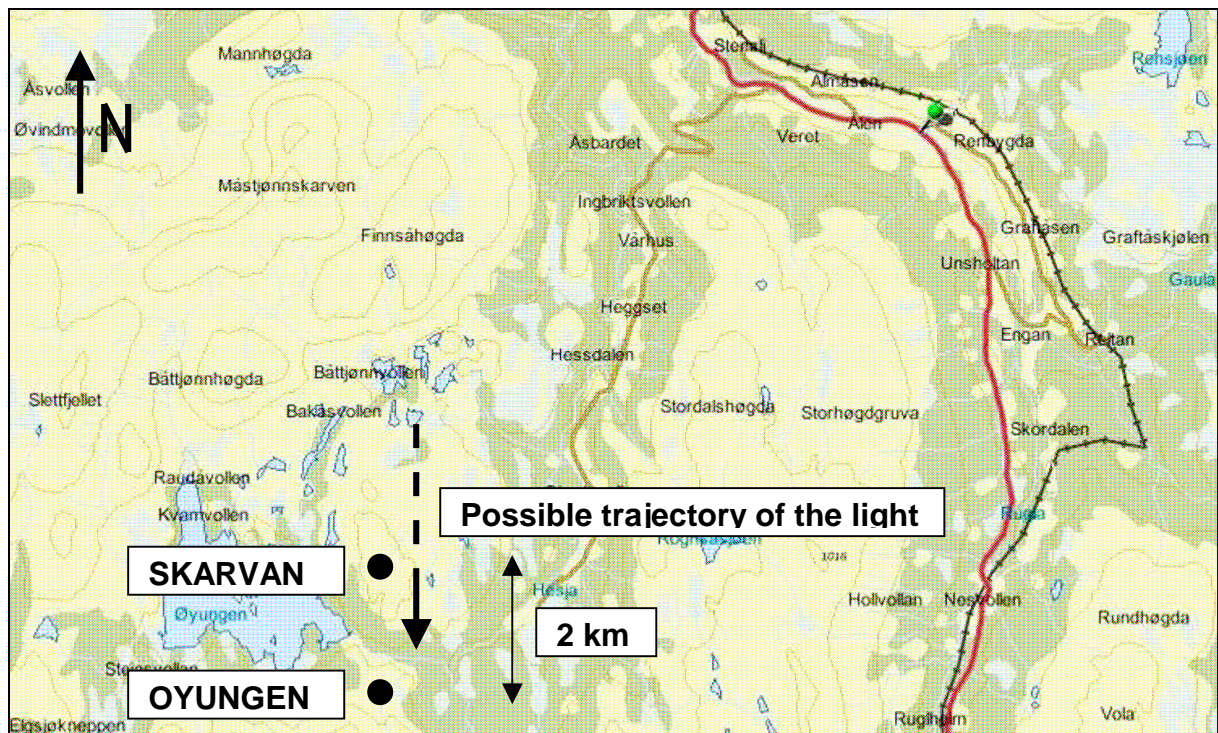
- Date of the sighting: - September 14, 2010.
- Time of the sighting: - 20h45 (local time).
- Type of sighting: - A bright light appears in the sky, it then dashes downwards and disappears in the forest.
- Location of the sighting: - Above Mount Skarvan, in the Hessdalen valley.
- Location of eyewitness: - Oyungen observation spot.
- Duration of the sighting: - A few seconds.

2) Weather conditions

- Visibility:
- Very good visibility. Clear sky. A few small clouds above Mount Skarvan.
 - Decrease in brightness at 20h45, but Mount Skarvan was still clearly visible.
- Atmospheric conditions:
- No storm activity at the time of the sighting.
 - The eyewitness noticed a flash of lightning half an hour earlier, when the sky was cloudy in a zone located approximately 5 kilometers West of Mount Skarvan.
- Temperature:
- 7° or 8°
- Sound:
- No sound was heard before, during or after the sighting. However, the eyewitness was in his car with the doors closed.

3) State of mind of the eyewitness

The eyewitness was having dinner in his car at the Oyungen observation spot when a bright light, which appeared above Mount Skarvan, surprised him. He was looking at Mount Skarvan when the light appeared, so he witnessed the entire phenomenon, which lasted a few seconds. At the end of the sighting, the eyewitness finished eating his dinner without any particular feeling other than that of having seen an unusual phenomenon. Due to the short duration of the sighting, he did not have the time to take his camera and use it.



Map A

4) Description of the sighting

Distance of the sighting: - The distance between the location of the eyewitness (Oyungen observation spot) and Mount Skarvan, is approximately 2 kilometers (see Map A).

Details of the sighting: - A circular shaped bright white light appeared in the sky, approximately 1 or 2 centimeters (estimation at arm's length) above Mount Skarvan (Position 1 - Photo A).

The light was about 2 or 3 millimeters in diameter (estimation at arm's length). It looked like a star, but was much bigger in size. It sparkled and moved slightly up and down while in Position 1, where it remained for 1 or 2 seconds.

- **The size of the light while it was in Position 1 can be estimated at between 5 and 8 meters in diameter** (this estimation is for the size of a bright light and not of an object with a well defined outline).

¹ Calculation method – Estimation of the size of the light:

Estimated size of the light between thumb and forefinger at arm's length: $S = \text{between } 2 \text{ and } 3 \text{ mm} = 0,002 - 0,003 \text{ m}$

Arm's length of the eyewitness: $B = 0,75 \text{ m}$

Distance between the eyewitness and the light (between Mount Skarvan and Oyungen observation spot): $L = 2000 \text{ m}$ (Map A)

$H = LxS/B \rightarrow H = 2000x0,002/0,75 = \underline{5,3 \text{ m (lower limit)}}$ - $H = 2000x0,003/0,75 = \underline{8 \text{ m (higher limit)}}$

- Subsequently, the light dashed downwards towards Mount Skarvan and suddenly disappeared in the forest halfway down the mountain. It did not appear to illuminate the trees in a visible manner (Position 2 - Photo A).

- The movement of the light from Position 1 to Position 2 lasted approximately half a second, but it is difficult to determine the exact duration of such a short time span.

Let us calculate a lower limit if the movement of the light lasted 1 second, and a higher limit if it lasted $\frac{1}{4}$ of a second.

- **The speed of the light moving from Position 1 to Position 2 is estimated at between 133 and 532 meters per second**²

² Calculation method – Estimation of the speed of the light moving from Position 1 to Position 2:

Distance between Position 1 and Position 2 between thumb and forefinger at arm's length: $S = 5 \text{ cm} = 0,05 \text{ m}$

Arm's length of the eyewitness: $B = 0,75 \text{ m}$

Distance between the eyewitness and the light (between Mount Skarvan and Oyungen observation spot): $L = 2000 \text{ m}$ (Map A)

$H = LxS/B \rightarrow$ Distance between Position 1 and Position 2: $H = 2000x0,05/0,75 = 133 \text{ m}$

Duration of the movement of the light from Position 1 to Position 2 : 1 second (lower limit) – $\frac{1}{4}$ second (higher limit)

Estimated speed of the light moving from Position 1 to Position 2 : between 133 m/s and 532 m/s

- The eyewitness had the impression that the slight up-and-down movement of the light while in Position 1, could have been caused by small changes in altitude if the light was moving quickly from the North to the South directly in the direction of the eyewitness.

The light could have appeared and started moving from an undermined point of origin, until it reached Mount Skarvan and then dashed downward to disappear in the forest (see Map A).

- During its rapid movement from Position 1 to Position 2, the light seemed smaller (between half and a quarter of its original size), it no longer vibrated and seemed shinier and more intense (slightly blue-white in color).

Could this change in appearance be related to the fact the light was moving in front of the mountain background, which was darker than the sky? Or could it be related to the fact the light was no longer dashing straight towards the eyewitness, but down into the mountain towards Position 2?

5) Possible explanations

1) A flare:

- The light did not rise from the ground into the sky, it appeared directly 1 or 2 centimeters (estimation at arm's length) above Mount Skarvan.
 - The light did not appear to be an incandescent object and it did not produce any smoke or a trail.
 - The light did not seem to illuminate the trees when it disappeared in the forest.
 - The light did not seem to « fall » from Position 1 to Position 2, as a flare would have. It dashed toward the ground at a speed of between 133 and 532 meters per second.
- The appearance and the trajectory of the light do not seem compatible with that of a flare.

2) A shooting star or a meteorite :

- The light was much bigger than a star while it was in Position 1.
 - The light moved slightly up and down while it was in Position 1.
 - The light appeared 1 or 2 centimeters above Mount Skarvan (estimation at arm's length) and did not « fall from the sky ».
 - The light did not impact the ground violently when it reached Position 2; it simply disappeared amid the trees.
- *Hypothesis a) (unlikely) The light was stationary and did not move in the direction of the eyewitness while it was in Position 1:*
 - It would have been impossible for a shooting star or a meteorite to remain stationary for 1 or 2 seconds in Position 1, and then suddenly dash towards the ground to Position 2 in a fraction of a second.
 - *Hypothesis b) (more likely) The light was moving horizontally from the North to the South straight in the direction of the eyewitness for about 1 or 2 seconds:*
 - The slight up-and-down movement of the light could indicate small changes in its altitude during its flight towards the eyewitness, which is incompatible with the trajectory of a shooting star or a meteorite.
 - If the light had been a meteor or a shooting star, it would logically have continued its path horizontally towards Oyungen observation point, perhaps dropping only slightly due to its elevated speed. Instead, the light suddenly dashed halfway down Mount Skarvan and disappeared in the forest.
- The appearance and the trajectory of the light do not seem compatible with that of a shooting star or a meteorite.

6) Conclusion

The most likely explanation for the sighting made on September 14, 2010 at 20h45 above Mount Skarvan in the Hessdalen valley, is that it was a “Hessdalen Phenomenon”, similar to those seen in the area for the past 30 years.
As of today, these phenomena remain unexplained.