

Report from the Field:

Scientific issues in the UFO Phenomenon

- Reports of the Phenomenon can be studied objectively with the methods of today's science *WITHOUT PRE-JUDGING THEIR NATURE.*
- New, radical hypotheses may be needed to account for the phenomenon - beyond the limited polarization between skepticism and belief in “extraterrestrials.”

Researchable Scientific Issues

- 1. Luminosity and energy considerations
- 2. Material analyses

Luminosity estimates

Five cases leading to calculations of
optical power output

Case no.1: 27 Aug. 1956 McCleod, Canada

- Witnesses: Canadian AF pilots
- Bright sharply-defined disk, motionless
- Photograph taken
- Dr. Maccabee's analysis
- Diameter 100 m, duration: minutes
- Estimated power output: 30,000 Mw

Case no.2: September 1965

Fort-de-France, Martinique

- Witnesses: French sailors and officers
- 200 observers on land and ships
- Round object arrived from West, 9:15 pm
- Made several loops over the harbor
- Luminosity of Full Moon, distance 10 km
- Estimated power output: 2.3 Mw

Case no.3: 30 Dec. 1966

Haynesville, Louisiana

- Witnesses: Physics professor & family
- Red-orange glowing hemisphere
- At ground level, about 2,000 feet away
- Intensified light washed out car headlights
- Analysis in Condon report: unexplained
- Estimated power out: 500 Mw

Case no.4: 5 Nov. 1976

Grenoble, France

- Witnesses: French physics lab director
- Other witnesses in Grenoble area
- Intense white luminous disk, 8:10 pm
- Analysis by CNES-GEPAN
- Moonlike illumination below object
- Estimated power output: 15 Kw

Case no.5: 19 June 1978

Gujan-Mestras, France

- Witnesses: several groups, 1:30 am
- Oval, red object turned off streetlights
- Diameter 15 ft, altitude 11,000 to 1,000 ft
- Analysis by CNES-GEPAN
- Distance to photocell = 400 to 1,500 ft
- Estimated power output: 160 Kw to 5 Mw

Physical analyses

Six cases leading to element
identification in material samples

Case no.1: 1933 or 1934

Ubatuba, Brazil

- Witnesses: local people near the beach
- Disk plunged, rose again, exploded
- Analysis by Dr.Fontes, Barbosa, Apro
- Highly pure magnesium
- Analysis confirmed by Dr.Sturrock
- Traces:Aluminum, calcium, iron

Case no.2: 1952 Washington, D.C.

- Witness: Navy pilot chasing object
- Bright fragment detached itself and fell
- Report by Wilbert Smith of Canada
- Fragment said to be “a matrix of magnesium orthosilicate”

Case no.3: 14 December 1954

Campinas, Brazil

- Witnesses: many local people
- Three disk-shaped objects flew over
- One object started wobbling, lost altitude
- Thin stream of silvery liquid ejected
- Analysis by Brazil govt and Dr.Maffei
- 90% tin, plus other elements

Case no.4: 1967 Maumee, Ohio

- Witness: car driver involved in collision
- Fibrous material found on car
- Reports by Lorenzen, Condon
- 92% magnesium

Case no.5: 1975 or 1976

Bogota, Columbia

- Witnesses: Two University students
- Metallic sound heard, 4 am, raining
- Disk, 12 ft diameter, in difficulty
- Four other objects came over
- Spouts of liquid ejected
- Analysis: Vallee, Puthoff
- 93.7% Aluminum, phosphorus, iron

Case no.6: 17 Dec. 1977

Council Bluffs, Iowa

- Witnesses: Eleven, in several groups
- Hovering red object with lights around
- Metal ejected, fell on levee, molten state
- Police and investigators on site immediately
- Classical explanations ruled out
- Major component: iron
- Other elements: nickel, chromium

Council Bluffs case details

- Location: levee in Big Lake park
- Time: 7:45 pm on 17 December 1977
- Weather: 2,500 ft ceiling, visibility 10 miles temperature 32 degrees F., wind from WNW 16 mph, gusts to 25 mph.
- Metal was “running, boiling down” (police)
- Remained warm to the touch for two hours

Hypothesis A:

Hoax by persons pouring metal ?

- Every metal firm in the area was checked
- Griffin Pipe has product capability
- Works mgr. Linton Stewart stated melting point of carbon steel is 2,500 degrees F.
- It would have to be transported in special oven with a large truck
- Conclusion: NOT A HOAX

Hypothesis B:

Hoax by persons using thermite ?

- Material was in molten state as witnesses arrived
- Ground was frozen to a depth of 4 inches
- The air was at 32 degrees F
- Water cooling would have generated ice
- No source of thermite in the area
- Conclusion: NO THERMITE WAS USED

Hypothesis C:

Material falling from aircraft ?

- Proximity to Eppley Airfield noted
- No abnormal aircraft activity at the time
- Airlines stated they had no landing then
- Aircraft would be low, falling metal could not be warmed up by atmosphere
- Does not explain glowing disk seen
- Conclusion: DID NOT FALL FROM A/C

Hypothesis D: Space debris ?

- Air Force Space Systems contacted
- reentering debris is not molten when it hits
- 35 to 40-pound mass left no indentation
- visual sighting was at altitude 500 to 600 ft where debris would not be glowing
- no structural indication found
- **Conclusion: NOT SPACE DEBRIS**

Hypothesis E: Meteorite impact ?

- No significant crater
- Material in molten state for hours
- Low nickel composition
- Incompatible with meteoritic nature
- Conclusion: NOT A METEORITE
- *THE CASE REMAINS UNIDENTIFIED*

CONCLUSIONS

- 1. The phenomenon is researchable with the methodology of today's science.
- 2. Ideological arguments are premature.
- 3. The reality of the phenomenon does not necessarily imply interplanetary visitation: there is too much we still don't know.
- 4. The phenomenon is an opportunity to advance physics.

Full references

- 1. Estimates of Optical Power Output in six cases of unexplained aerial objects with defined luminosity characteristics.
JSE Vol.12, no.3, pp.345-358 (1998).
- 2. Physical Analyses in ten cases of unexplained aerial objects with material samples.
JSE Vol.12, no.3, pp.359-376 (1998).