

The GEIPAN : Missions, history, methodology and classification

Missions

The GEIPAN's mission

The GEIPAN's mission (Group for Study and Information on Unidentified Aerospace Phenomena) is to provide an operational service based on investigations related to reported observations. The Geipan process is as follows:

- Collecting testimonies: collect the observations of witnesses on French territory and ensure the veracity of each observation;
- Analysis of testimonies: seek an explanation to these observations by known phenomena and by relying on a network of investigators, experts (if necessary) and respond to witnesses;
- Anonymization and archiving of testimonies: make a file as complete and precise as possible to allow the possible further study of the phenomenon observed by scientific teams external to the CNES;
- Public information: inform the public through the website of the different cases and conclusions. Respond to media inquiries.

The GEIPAN also has a mission dedicated to supporting the scientific exploitation of UAP observations and thus promoting the advancement of knowledge of phenomena associated with UAPs by relying on the scientific community, who can benefit from it for their own knowledge.

GEIPAN is not a specialist of global UFO phenomenon nor a research organization on extraterrestrial life or on advanced or futuristic technologies that can explain extraterrestrial visits. This is not the case; it is neither in its prerogatives nor in its capacity in accordance with the CNES's missions.

The GEIPAN uses UAP (Unidentified Aerospace Phenomena) and not UFO. The term UFO has the double default of talking about an object, whereas it is not always an object, and has a saucer or extraterrestrial connotation.

The GEIPAN makes the information it collects available to the scientific community and to the general public.

How does the GEIPAN work ?

The GEIPAN is part of the Orbital system directorate of the CNES in Toulouse.

The GEIPAN works with a network of 20 investigators that are located throughout France. These investigators take part in the examination of cases and can also when necessary and asked by the GEIPAN, do field investigations to gather further information. They use the GEIPAN's guidelines that are defined in the investigator's guide.

The GEIPAN also relies on external services to conduct investigations:

- The services that work with the GEIPAN allow it to quickly access tangible information: Gendarmerie Nationale, Armée de l'Air et de l'Espace, Aviation civile, Météo France...;
- The scientific community: le CNRS (especially the IMCEE), the CEA...

The GEIPAN also rely on a college of experts, approximately 20 volunteers, who come from different scientific fields and can examine the most complex observation cases submitted to them. They provide scientific support for the examination of cases.

The GEIPAN is supervised by a steering committee chaired by a recognized person from the aerospace world but also counts representatives of the French civil and military authorities (Gendarmerie Nationale, Police nationale, Aviation civile, Météo, Armée de l'Air et de l'Espace, CNRS et Recherche scientifique) and the CNES. This committee's main task is to examine the GEIPAN's results and to make recommendations to the CNES about the GEIPAN.

The GEIPAN team consists of three CNES (French space agency) officers they are the head, his assistant and an investigator but they also rely on external assistance for:

- The study and expertise of information processing (Case follow-up and study, statistics...).
- Information management, formatting, anonymization and archiving of the case studies.

GEIPAN's budgetary resources come from the public service subsidy received globally by the CNES to carry out its activities.

History

From the GEPAN to the GEIPAN

As far as history can testify men look at the sky and its phenomena with interest. This interest has continued to grow especially since the appearance of new techniques and therefore new machines in the twentieth century. The GEIPAN then tries to answer the questions and expectations of the population about UAP (Unidentified Aerial Phenomenon).

The CNES (French Space Agency) has been studying UAP since 1977 when the GEPAN (Unidentified Aerospace Phenomena Study Group) was created.

In 1988, the GEPAN was replaced by the SEPRA (Atmospheric Reentry Study Group).

In 2005, following an audit, the Chairman of the CNES decided to restructure the activity and the GEIPAN replaced SEPRA. An important recommendation to inform the public in a transparent manner was made. This recommendation is reflected in the I (Information) added to the acronym GEIPAN and is expressed through the publication, begun in 2007, of the archives and files of GEIPAN with a more voluntary public communication (website, leaflets, conferences, press and media contacts). Most of their communication is done via its website, which was launched in 2008 and was redesigned in 2021.

Methodology

The GEIPAN explains the weirdness and documents the unexplained

How can the weirdness perceived in a sighting be explained by one or several known phenomena? The most difficult phenomenon to explain can be:

- the one that initiated the sighting because there is always something in the sky, hoaxes being very rare:
 - ball lightning, fall of a meteorite, night-club laser lights projecting toward the sky, orbital launcher degassing...or even Chinese lanterns ;
- and/or the one that, with a banal origin, will add weirdness to the sighting:
 - wingless or stationary aircraft, holes in clouds in front of a red moon, moving star due to the autokinetic perception phenomenon...

These interdisciplinary (from physics to psychology) investigations are based on the actual scientific knowledge only (no explanations based on a future or hypothetical science). When no explanation is possible, the aim is to characterize the phenomena as well as possible before dissemination to science and researchers.

A reproducible methodology

The GEIPAN uses a reproducible methodology for each survey. The methodology is based on current scientific knowledge and known aerospace phenomena.

It follows 7 steps:

1. Collecting the testimony
2. Creating the Record
3. First analysis
4. Investigation and Processing
5. Classification in A, B, C, D1 or D2
6. Anonymization of the file
7. Informing the witness and publication on the website

If the testimony is very easy to explain without investigation a quick response is given to the witness and the processing of the file stops there without publication on the website of GEIPAN. In other situations an observation case file will be created.

GEIPAN gives priority to easy-to-solve cases and very strange cases. As the human resources of GEIPAN are limited the processing of all cases is carried out over several months or even years.

Complexity and fragility of the human testimony

The GEIPAN always works from human testimonies. Most of the time a single one, sometimes several (witnesses can then be related to each other or not), including sometimes traces of the sightings: photos, radar traces, or more rarely some traces left by the phenomenon on the ground.

The analysis of what is reported by the witness is aiming at identifying what was really seen in a story that can be altered by factors from human origin such as :

- Vision deficiency;
- Perception mistakes due to the brain short-term processing (autokinetic effect) or due to psychological constructs (distance and speed of the UAP described by the witness, whereas it is clearly not possible to assess them from a non-recognized object, "pivot effect", wrong reconstitution of the path);

- Identification and interpretation of the weirdness. Generally, the sighting is immediately and unconsciously transformed by the witness into a mix of what is really seen and a depiction of social and psychological representations made by the witness being the closest possible to what he/she knows and can identify. The less the sighting is easily identifiable and recognizable, the more cultural and social interpretations will be important in his/her testimony. Cultural differences will also be involved. When we meet the witness at distance from the sighting, the delayed interpretation can involve some opinions and beliefs;
- The emotion felt by the witnesses is one of the main factor that will increase the components described above and as a consequence will increase weirdness;
- Memory is of course involved, along with what is called “false memories” (memories acquired after the sighting and that will unconsciously be added to the lived memories);
- Culture of the witness will impact on the sighting report (the witness will use his/her own vocabulary).

The GEIPAN uses a cognitive interview developed by the Cognitive Psychology laboratory of Toulouse (<http://clle.univ-tlse2.fr/>) from the CNRS (« Centre National de la Recherche Scientifique »). This research team is working in this field by helping the police. The GEIPAN testimonies are very useful and a joint CNRS-CNES PhD thesis was even sustained in order to better understand the “false memories “. Investigators are all trained to cognitive interview and apply it during their interactions with witnesses.

Witnesses are ordinary people, coming from all social environments

Even the most experienced sky users can be caught by surprise. For example, pilots must report every odd OBSERVATION whether or not it impacts aerial security. However, it can be celestial bodies, a satellite falling back to earth or a meteorite entering in the earth atmosphere. Among the very odd unexplained cases, numerous ones are reported by aeronautical experienced sky users (pilots...).

Sometimes, witnesses try to justify the consistency of their sighting and their interpretation of what they have seen by their education level or by their professional expertise. Later on, they often are the most active in challenging or even denying the GEIPAN conclusions.

Explained and unexplained cases are equally interesting

To understand the complexity of the human testimony, as we have inside what has been reported but also what (probably) happened:

- To understand the complexity of the human testimony, as we have inside what has been reported but also what (probably) happened;
- To understand the difficulty of the investigations; the border between an explained and an unexplained case can be tiny and sometimes depends of very few but decisive details;
- To improve the reliability of what is declared “unexplained”.

Remark: the unexplained can be of interest for basic physics, whereas explained cases could represent at least a similar or even a larger interest for the social sciences.

Classification

A classification methodology consolidated over decades

Since 2008, a more detailed classification (A/B/C/D1/D2) has been used by the GEIPAN. It is based on 2 main criteria: the weirdness and the consistency.

This methodology involves:

1. The identification of research hypotheses that could explain the full weirdness of the sighting (as perceived by the witness) and the evaluation of their probability. Each hypothesis is based on one or several physical (such as stars or plasma) or psychological (such as perception effects, false memories) known phenomena;
2. The characterisation of the sighting weirdness (E, ranging from 0 to 1). It is the distance to what is “known”, measured by the difference: 1 minus the probability of the strongest hypothesis. If the weirdness is above 0.5, the GEIPAN has no explanation (no hypothesis seems appropriate).
3. The characterisation of the consistency of the sighting depending of the amount of gathered information (number of witnesses, number and precision of the responses, presence or not of photographic materials...) and its reliability (coherence, reliability of the witnesses, existing links between the different witnesses...).

Finally, it requires to apply the following basic and common-sense principle: the more the weirdness is strong (i.e. the less the best hypothesis is probable), the more the consistency must be strong:

- to validate the “unexplained” when the weirdness is above 0.5. **D1 (strange) or D2 (very strange) cases.**
- to validate the explanation when the weirdness is below 0.5. **A (almost proved hypothesis) or B (probable explanation) cases.**
- otherwise, the sighting is declared “not workable” due to **lack of reliable data: C cases.**

For D1 and D2 cases, on-site investigations, including a meeting with the witness and a cognitive interview, are systematically performed. Very often, the final classification is defined following the opinion of the group of experts. However, an eventual reclassification is always possible when a new element come in. The D cases need periodical re-evaluation.

Statistics of the GEIPAN

Across the last 40 years, 9 724 testimonies (representing around 5 300 cases) were analysed by the GEIPAN. Around **10%** of the cases led to on-site investigations.

63,2 % of A and B cases are explained by some misidentification or by some perception mistake.

33,4 % of the sightings cannot be assess.

Around **3,4%** of the sightings remain unexplained.

Over the last decade, the rate of unexplained cases dropped to **2%**. Today, the GEIPAN has sped up the reappraisal of old D cases with 50 of them re-investigated and explained in 2017.

Globally, the GEIPAN is handling **1000** requests per year: more than half are treated by an immediate feedback to the witness or by directing the witness towards others entities. Around 200 lead to investigations with diffusion on the GEIPAN website (www.geipan.fr) of sighting reports and investigation conclusions, maintaining anonymity of witnesses.

What to think about unexplained cases? Why so many?

Incompetency of the investigator?

- Challenges encountered by the investigator are multiple: difficulty in defining or ranking the different hypotheses, no or low competency sharing between investigators, not involving the right expert. Most of the time, the most important challenge is to gather from the witness the key element that will explain the particular previously resisting to analysis. A lack of empathy, an insufficient ability to listen, a closed question or a question asked at the wrong moment, can definitively stop the opportunity to find an explanation;

Lack of investigation resources?

- The GEIPAN resources are of course limited. An investigation can take up to 250 hours, but this remains rare. Old cases did not benefit from the now available powerful web-based and digital tools;

Hoaxes?

- Very rare (< 1%) and we know how to detect them (but we do not disclose how).

Pathological liars?

- We can also detect them. Expert psychologists are then involved and work using the questionnaire or audio recordings.

Hallucinations?

- Sometimes it is obvious but in others cases, it can be difficult to detect. Hallucinations are not always pathological ones and can come from a witness whose behaviour and sayings rise no issue apart from the weirdness present in his/her sighting,. In this case, opinion of our expert psychologists will be decisive. They are then working from audio recordings made during the cognitive interview (authorized by the witnesses) or on-site by meeting the witnesses themselves.

Unknown natural phenomena?

- We can hope that explanations will come from the future. Some phenomena have already been explained by the Science's progress: ball lightning, autokinetic phenomenon. For sure, others will also find an explanation. Moreover, progress is also coming from the acquired experience: some of the explained cases (for which objective proofs are available) allowed to identify and characterize what brought weirdness in these sightings. Such cases are nowadays much easier to identify and help to explain some recent or old cases that remain unexplained. For example, laser spotlight reflections in the sky, group of birds in flight formation, perception mistakes...).

Flying aircrafts from an unknown origin?

- Of course, this hypothesis cannot be excluded, although in 40 years of investigations of the GEIPAN, no proofs have been found.

And what about the alien hypothesis?

A large part of you, readers, is probably expecting some words on this matter. Having clearly said that the GEIPAN, to this day, has no proof of their existence, we will not formulate an opinion. An absence of proof does not make a proof of absence !

The alien hypothesis is constantly present in the work of the GEIPAN. It can be suggested or clearly expressed by the witness but also can only be present in his/her emotion in reaction to the sighting. Medias and journalists in particular have most of the time this aspect in mind during interviews, looking to find the best teaser or the best title for their paper. The GEIPAN's work is also scrutinized and criticized by some UFO blogs and associations who are pros of the alien hypothesis..

Not very far from the alien hypothesis stands the conspiracy theory which is also continuously present in the GEIPAN work: "the GEIPAN has been set up by the government to hide the truth", "receives orders from the military", etc...

All these theses must be managed by the GEIPAN in his daily work and clearly, GEIPAN respects all opinions and the need to believe.

Indeed, the fundamental question that may bring some weirdness in the sky at any time is of high nobleness : what place man has when facing the immensity of the universe?