

# Principles of Good Scientific Practice for Research on UAP / UFOs Version May 5, 2023

## Preamble

*“We can define the UFO simply as the reported perception of an object or light seen in the sky or upon the land the appearance, trajectory, and general dynamic and luminescent behavior of which do not suggest a logical, conventional explanation and which is not only mystifying to the original percipients [UFO in the wider sense] but remains unidentified after close scrutiny of all available evidence by persons who are technically capable of making a common sense identification, if one is possible [UFO in the stricter sense].”<sup>6</sup>*

The existence of UAP / UFOs as defined above—encompassing all personal, social, and scientific consequences resulting from these experiences—can be explored by scientific means. This research can be seen as a branch of anomalistics, since it exhibits basic characteristics that are explored by this field<sup>12</sup>. It is highly interdisciplinary and knowledge production is often due to interested people in the form of isolated or cooperative work as well as in associations (*citizen science*). The abbreviation UFO stands for “Unidentified Flying Object” without any further meaning concerning origin or type of such an object. Due to misleading aspects of the definition of the term UFO<sup>8</sup>, the term UAP (Unidentified Aerial / Atmospheric / Anomalous Phenomenon) is synonymously used. Both terms are used here exclusively phenomenologically in the sense of descriptive science.

The aim of the principles outlined here is to establish a model for ethical research and specific guidelines for responsible behavior in the investigation of all aspects of UAP / UFOs for layman or *citizen science* researchers. In recognition of the general scientific working methodology, the principles are based on existing professional standards for scientific work in Germany<sup>3,9</sup>, but also include existing codes of conduct for the analysis of UFOs and related spontaneous phenomena<sup>1,2,10</sup>.

From time to time, the principles will be reviewed and, if necessary, revised. Researchers who wish to propose improvements or extensions are invited to contact one of the boards of the organizations that respect the principles.

Complete coverage of all ethically and professionally appropriate procedures in all conceivable research situations is clearly impossible in a document on basic principles. Where appropriate, further regulations from scientific fields, from anomalistics research and from legal requirements should be considered, or detailed and standardized working methods for the research on UAP / UFOs are to be applied or developed.

The following points describe general guidelines for research as well as for the handling of experiencers and the public, which are essential in the investigation of UAP / UFOs. Adhering to the basic principles requires a disciplined and responsible approach of all those who respect them. This responsibility forms the basis of cooperative research work and a secured knowledge gain.

## **§1 General Research Practice**

(1) To investigate UAP / UFOs by scientific means implies a methodical search for findings that are valid intersubjectively. The structure of such efforts must always be committed to truth, honesty, and fairness: We want to acquire, not invent knowledge. This aim is to be achieved in fair partnership with other researchers.

(2) The work on UAP / UFOs must be carried out *lege artis*: The basic rules for the collection and selection of data explained here must be observed strictly. Wherever such rules have not yet been established, researchers (as their investigation as a form of *citizen science*) are to develop basic principles together and in conjunction with relevant reference sciences and expand the present document.

(3) Research on UAP / UFOs takes the form of scientific-critical work: openness to different perspectives and the willingness to question one's own results, to discuss them self-critically with others and to accept unpleasant findings are basic prerequisites for all researchers. Implicit axiomatic assumptions should become aware as such and every wishful thinking must be mastered in a factual investigation.

(4) Many research questions on UAP / UFOs require highly interdisciplinary efforts to solve them. The research object as a spontaneous phenomenon can be grasped methodically only to a limited extent. As a result of these hurdles, systematic attention must be paid to possible misinterpretations among all those involved. This applies in particular to the process of hypothesis formation in individual case analyses. The assessment of an individual case as an event that remains unexplained (UFO / UAP in the stricter sense) may only take place after extensive and methodologically strict investigation; neither may the assignment of a known occurrence as a cause for an individual case be made lightly, but it must be based on comprehensible and verifiable conclusions.

## **§2 Collegiality and Cooperation**

(1) The search for knowledge about UAP / UFOs that is based on scientific criteria unites researchers. It has the effect that people who once were strangers now have something in common and, by this, become colleagues. Additionally, interdisciplinarity and the layman status of the research mean that each individual person is only capable of independent judgement and competence in a limited area. They remain dependent on the preparatory and supportive work of other researchers or have to do such work for others. All researchers must be able to trust contributions by colleagues. It is therefore essential that research on UAP / UFOs takes place in forms of work and organization that fully permit and support extensive communication and cooperation between all involved.

(2) Since each researcher's work forms a building block for gaining knowledge about UAP / UFOs, it should be characterized by comprehensibility and accountability for all interested parties and should enable the application of the methodology or the results in further research, and complete transparency of the procedure, the means used, and the results obtained in all areas should be aimed for. Details which counteract the protection of a reporter of an experience according to § 6.5 are to be excluded from this.

(3) Research on UAP / UFOs must be characterized by absolute openness to criticism and doubt from colleagues and co-workers, but also from representatives of opposing positions. These are to be taken seriously and treated on a strictly objective basis. If necessary, own research results must be adapted or abandoned.

(4) The scientific work of colleagues shall not be hindered in any way. Therefore, deliberate delaying of factual communication or reviews, disclosure of confidential scientific data or results, misleading communication, or presentation of partial information about cases or results or deliberate publication of untruths of any kind must be avoided or sanctioned as counterproductive actions. Instead, a careful, unselfish, and unbiased assessment of the work of others is important and the basis of any cooperation. A researcher aware of his bias should refrain from assessing or of a commenting the work of others.

(5) Relevant and non-confidential information about one's own work shall be provided to all interested researchers who act responsibly in accordance with these principles, even if they plan a publication. The source for the information must then be clearly indicated in the publication.

(6) Persons whose professional qualifications or relevant level of knowledge is considered lower than their own should be helped and supported objectively and cooperatively. This can be done by referring to existing and published findings, by organizing conferences and seminars or by making an offer to act as a discussion partner.

### **§3 Debate Culture**

(1) An important component of collaborative research on UAP / UFOs is open communication about data, results, and methodological issues. Receiving comments, ideas, questions or counterarguments to one's own work shapes and improves every public statement by providing more secured knowledge even before it occurs. An open, tolerant discussion culture which allows everyone involved to contribute their ideas and arguments is necessary.

(2) In the scientific struggle for understanding, as a first step differing theories are possible and useful for series of facts, but also for the interpretations of subjective experiences. They then must be considered carefully. The basis of any reasonable discussion is the recognition of the constructive research work done by others, regardless of whether it seems to be supportive or contrary to one's own methods and results.

(3) Research on UAP / UFOs is characterized by a strong polarization of opinion and, unlike established science; it is currently rarely an institutional or professional discipline. For these reasons, it is equally important from a research-ethical as well as from a research-practical point of view, to distinguish the researchers' personal preconception from their work. No one should have to experience ignorance or contempt solely because of a "skeptical" or "supportive" position. Instead, the object of criticism should always be the specific approach and argumentation in a research practice.

(4) Insulting, dogmatic, threatening or otherwise inappropriate comments, similar reactions to professional criticism or personal attacks on the reputation of a researcher should be excluded from all discussion on investigation of UAP / UFOs. Such comments should be ignored to not promote a culture of *ad hominem* rebuttals. Instead, in such cases, the ne-

cessary objectivity should be calmly requested, and the discussion should return to factual issues.

## **§4 Backup and Storage of Data**

(1) Research on UAP / UFOs depends on obtaining raw data by interviews, measurements, observations, or other direct and indirect methods, where the experiencer usually plays the most important role as a source. Scientific investigations, calculations and experiments can only be reproduced or reconstructed when all important steps of data collection are transparent. Therefore, a sufficiently complete filing of all methods used and results obtained, and a long-term storage of these protocols is necessary, if only to be able to access such records when published results are questioned by others.

(2) Each individual case study of UAP / UFOs shall be documented in a file labelled with a unique identifier. The file should include the name of the witness, date of report, date, time and place of the reported experience, possible other witnesses, case classifications, names of the investigators, their assessments and all other documents relating to the investigation of the case (communications between investigators and witnesses, collection of secondary data, discussions during investigations, etc.).

(3) Statements made in interviews shall, where practicable and with the consent of the respondent, be documented in video or audio recordings. If the interviewee objects to this procedure, a transcript as detailed as possible should be made. The names of those present during the interview must be documented.

(4) Personal theses about an individual case or about UAP / UFOs, for example in the context of case assessments, shall be identified as such and strictly separated from the data collected, both in case documentations and in publications.

(5) Fraud in scientific research includes deliberate inventions or distortions of facts, of research data or of circumstances of investigation. It also includes the deliberate concealment of information that makes the validity or reliability of data or of conclusions in an investigation appear questionable, as well as other similar misconduct. Anyone who encounters false statements or cover-ups of limiting facts by a fellow researcher should make extensive efforts to eliminate them, from a personal discussion with the person responsible to contact with the board of the organization in which the person responsible is active.

## **§5 Publication of Results**

(1) Research on UAP / UFOs should be conducted to maximize knowledge gain and benefit for society. The publication of specialist work is therefore a particularly important area of responsible scientific action. In a publication, authors announce results for whose professional and scientific reliability they assume responsibility. His or her publications determine the perception of a researcher both by colleagues and by the public.

(2) Papers which announce new scientific results must therefore describe the results and the methods used in a comprehensive and logical manner. This applies in particular to the consistent handling of all source material, the use of which must be marked, and which must be clearly cited in the publication, since only this practice makes possible verification by third parties.

(3) Strict honesty shall be sought in the recognition and appropriate acknowledgement of contributions from predecessors, competitors, and co-workers. All findings supporting or questioning the results presented should be reported in accordance with this principle.

(4) In an effort to establish a fault-tolerant research culture, falsified hypotheses shall also be published in an appropriate manner, and errors shall be admitted.

(5) If several authors are involved in a research project or in the publication based on it, everyone should be named as co-author who contributed significantly to the concept of the study or experiment, to the development, analysis, and interpretation of the data or to the recording of the manuscript itself and who agreed to its publication. The authors are always jointly responsible for the content of their publication.

## **§6 Dealing with Experience Reporters**

(1) An essential part of the investigation of UAP / UFOs as a largely spontaneous phenomenon is the scientific examination and assessment of individuals reporting their experiences to the investigators. These witnesses as well as any persons acting in the name of experiencers must be protected in a particular way. They voluntarily report an unusual and socially controversial experience which defies their rational judgement, and they cooperate in the investigation of this experience.

(2) The intensity of efforts to uphold the personal protection of the witness shall depend on his involvement in the investigation: the greater the personal involvement of the experience reporter, the more he must be protected from any resulting damage.

(3) The primary objectives of the protection of witnesses are their personal integrity and their mental and physical health. No research method may be designed in such a way as to give the personal characteristics of an experience reporter which are worthy of protection a low priority or deliberately impair them.

(4) All personal data submitted, whether in the context of individual case investigations, of research projects or of studies, are also particularly worthy of protection. Regardless of whether such research activities are carried out within the framework of an association, of another organization or as individual researchers, the relevant regulations of the German Federal Data Protection Act (BDSG) and of the EU General Data Protection Regulation (GDPR) for non-public bodies apply to the collection, processing and use of personal data based on the right of informational self-determination. The principles of data avoidance and data economy, i.e., the collection of only the personal data required for the respective purpose, are hereby central. This results in both obligations (for the researcher) and rights (for the witness) which need to be strictly observed. For the researcher, this essentially means informing the witness about the voluntary nature, scope, purpose, and duration as well as storage and use (dissemination) of the collected data they provide. Furthermore, the witness shall be informed about his rights: the right to receive information at any time as to whether and which data are stored, as well as the right to have the data deleted or rectified or blocked.

(5) Each experience reporter decides to participate in an individual case investigation, and they can revoke it at any time without reprisal. To place the voluntary decision on a well-founded factual basis, informed consent must be obtained in more detailed inves-

tigation (starting with the standardized interview based on sighting questionnaires) by providing the witness with standardized information on the working methods, objectives, specific steps, and type of data to be collected during the case investigation.

(6) All direct interviews with the experience reporter should be arranged in advance. In any event, a rejection of such an appointment or interview by the witness, their wish for a third party to participate in an interview or for interviews by case investigators of other organizations must be respected.

(7) All personal interviews of a witness should preferably be conducted by two case investigators. At least one of the case investigators should be of the same gender as the witness. The parents or legal guardians should participate in an interview of underage reporters.

(8) Each interview exposes the witness to the influence of the researcher's beliefs, which can obstruct free memories and influence statements. In this regard, the highest priority of an interviewer should be the possibility for a witness to recount his or her experience free of intervention. Personal theses and speculations about the case, about UAP / UFOs or about other topics are not to be expressed by the investigator during the interview. If such details are discussed at a later date, they shall be declared as unproven statements to the experience reporter.

(9) The investigator shall always speak in a clear and unambiguous way to the witness during any case investigation. A strong formal or professional terminology should be avoided. Special interview techniques (*e.g.*, questionnaires, psychological tests) or examination devices that are unknown to the witness must be explained and may only be used with his or her permission. The case investigator must be professionally qualified for the application of these techniques or the devices.

(10) The performance or commissioning of polygraph tests (so-called "lie detectors") to assess the credibility of a witness statement does not produce reliable results about their truthfulness<sup>7</sup>. Polygraph test results are inadmissible as evidence in German criminal trials. Experience reporters who wish to undergo such a procedure shall be informed of these problems. Results of polygraph tests in case documentation or in case publications must not serve as sole evidence of the credibility of a witness or of the credibility of their statements.

(11) Regression hypnotic techniques are to be excluded from any case investigation. The request of experience reporters for such methods is to be rejected. The problem of pseudo-memories and possible negative effects such as memory impairment should be pointed out<sup>4, 11</sup>. If experience reporters persist in their wish, they should be referred to medically trained personnel, but the case investigation should be terminated or properly completed before regression hypnosis is performed.

(12) If there are signs of trauma or stress in an experience reporter, they should be immediately informed about the possibility of support by psychologists, physicians, or other qualified advisers. The handling of witnesses whose report belongs to the category of the so-called *abduction experience* should be regulated in separate guidelines for psychologically qualified investigators<sup>5</sup>.

(13) Without the consent of the owner, holder or an authorized representative, no private property must be damaged through the work of case investigators. Caused damages are to be compensated without request.

(14) For the publication of an individual experience case containing UAP / UFOs which is relevant to data protection laws, the consent of the party or parties concerned must be obtained. In any case, the anonymity of a witness must be kept in any publication, unless the witness specifically agrees to the disclosure of personal, identifying data. In this case, each witness shall be informed of the potential consequences of the publication. His decision for or against a publication is to be considered binding.

(15) When a person contacts an organization to report a UAP / UFO experience, in most cases they are interested in an explanation of the causes of that experience. Witnesses must therefore be informed of the results of the investigation. In addition, they have the right to access case files kept under their name.

(16) A witness might report something or submit material such as photographs and videos to be investigated with the intent to deceive. Researchers must be aware of this possibility and should be familiar with such forms of hoaxes without putting witnesses under general suspicion. If there are clear indications of a hoax, the experience reporter must be confronted with the judgement of the researcher. Their statement should be requested and included in the analysis before the results of the investigation are published.

## **§7 Conduct Towards the Public**

(1) Society is interested in understanding the research on UAP / UFOs and its consequences. However, the more complex scientific research becomes, the greater efforts are needed to explain its objectives, methods, and results to the general public in an intelligible way. Moreover, with every public statement a researcher represents both his own organization and research on UAP / UFOs in general. Therefore, a professional willingness to inform the public with the participation of the media about the scientific character of the research work and its individual aspects in a purely factual form is desirable.

(2) The responsibility to appropriately inform the public may contradict the characteristics of mass media presentations. Researchers should be aware of this and should not publish unconfirmed statements, unproven allegations, subjective speculation, or confidential information. Particularly impermissible are statements made in the name of an organization or researcher without his or her consent or the consent of the board as well as presentations of unpublished material from others without their consent. Publicly expressed doubt of the integrity of experience reporters or of fellow researchers can only be made if there is clear evidence and it is relevant to the public.

(3) Researchers should cooperate with authorities, in particular in circumstances which could affect social security or the life or physical integrity of people. Threats to the public or potential damage to property arising in a case investigation must be reported to the police or other responsible persons immediately, and all possible measures must be taken to protect society and property.

(4) Participation in research on UAP / UFOs and in individual case investigations does not constitute a specific privilege. For example, researchers may be forced to disclose confidential information in court. In such cases, individual principles laid down here may become temporarily invalid.

## Authorship

These UAP / UFO research principles have been developed through the collaboration of Danny Ammon, Jutta Behne, Martin Bielski, Natale Guido Cincinnati, Christian Czech, T.A. Günter, Peter Hattwig, Ingbert Jüdt, Marius Kettmann, André Kramer, Ulrich Magin, Hans-Werner Peiniger, and Jonas Richter.

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