UFOs: The Real Question

UFOS: THE REAL QUESTION

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[(*)2005 Introduction: National Investigations Committee on Aerial Phenomena. On November 28, 1966, Donald E. Keyhoe (Maj., USMC Ret.), Director of NICAP, and I as Assistant Director addressed the Colorado UFO Project scientists and staff in Boulder, Colorado, by invitation. They were just beginning a 2-year study of UFOs under a grant from the Air Force Office of Scientific Research, and knew very little about the subject. .My paper presented that day long ago illustrates how little has changed in the intervening years. The paper, unfortunately, proved to be prophetic. - Richard H. Hall, January2005.]

Abstract

A fundamentally important matter for scientists investigating the UFO problem is to pose correct questions whose answers will do more than merely reflect a number of misconceptions and stereotypes that presently exist within the scientific community. Unless the hard-core unexplained UFO reports receive special attention, the investigators might be misled by the admittedly high noise level of erroneous reports and cultist groups. The author, who has read and studied over 10,000 individual reports during the past eight years, argues the need for specific approaches to the UFO problem after analyzing skeptical arguments. In particular, the need to test whether a presently unrecognized real phenomenon may be behind some of the reports is stressed.

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What is the real question we are trying to answer when we concede that there is a "UFO problem" and set out to solve it? In posing the problem of UFO investigation, it is important to frame our hypotheses in a manner which will not preclude the discovery of a "signal" among the considerable "noise" (to borrow the analogy used by [J. Allen] Hynek and [Jacques] Vallee).

If we ask, "Are large numbers of people misled by conventional objects or phenomena, sometimes viewed under unusual circumstances?", then the answer clearly is "yes."

If we ask, :Are all people who report UFOs misled?", then an affirmative answer cannot fairly be given

until sociological and psychological evidence is produced showing how this could apply to the best witnesses (scientists, engineers, professional pilots...).

The real question is,: "Are the unexplained UFO reports describing some presently unrecognized phenomenon?" And if so, "What is the nature and significance of the phenomenon?" This cannot be answered by citing percentages and studying only known instances of "noise."

It is NICAP's opinion that the "percentage-explained" approach to UFOs is grossly misleading and scientifically invalid. For years, public statements by the Air Force have denied the existence of any real UFO phenomenon because something on the order of 97% of all reports allegedly had been explained in conventional terms. Without bothering to dispute the accuracy of some of the claimed identifications, we think it is clear that such reasoning begs the question.

Though at any given moment it may be unlikely that a hostile nation will launch an attack on the United States, this is a real possibility which causes us to desire an efficient radar/observational network for rapid detection. False alarms caused by birds or stray aircraft (in one case by the Moon) do not reduce the possibility; in fact, have no effect on it. Unquestionably 97% of all reports to date [by the defense network under discussion.--RH] have had conventional explanations. (The remaining 3% might include Russian spy planes skirting or attempting to penetrate our borders.)

Erroneous indications in this network (or any network established for a specific purpose) are a nuisance which need to be screened out. Those responsible for the success of the network naturally are most interested in possibly valid reports. Studies of why false reports occur would be relevant and important, but more important--because of their potential signficance--would be indications of a real penetration. It would make no sense at all for responsible authorities to argue that a penetration was not occurring or could not occur because 97% of all reports had been explained as false alarms.

Similarly, 97% of the "nibbles" a fisherman feels on his line may be caused by his line snagging on rocks or seaweed, or by wave motion. This doesn't prove there are no fish in the ocean.

On numerous occasions, the author has encountered among scientists three distressing lines of skeptical argument on UFOs:

(1) An argument from theory which, somewhat over-simplified, is--life on other planets in our solar system is extremely unlikely, the distances to other solar systems likely to support life are prohibitive, therefore UFOs (as interplanetary visitors) could not exist.

The many flaws in this reasoning include the imperfect knowledge we have of other bodies in our solar system, the assumptions of a human life span and presumed upper limits of human technology, and the uncertainty of possible relativistic effects applicable to hypothetical extraterrestrial travelers. However, the dangers of reasoning from human analogies aside, the "UFOs, i.e. spaceships, are impossible" theory begs the question of what people are seeing in our atmosphere; this normally results in "explaining away" UFOs without studying the observation reports.

(2) An argument from stereotype, based on lack of acquaintance with detailed observation reports, that UFOs are only reports of point sources of light, of brief duration, usually made at night, mostly by untrained observers, etc. That such vague reports give us no reason to become excited and talk in terms of possible extraterrestrial visitors, and that the reasons people are doing so must be basically psychological.

This argument reflects not only a lack of acquaintance with the detailed observation reports, but also that the most important reports have not been studied at all. There exist hundreds of intricately detailed reports from competent and reliable persons describing structured objects observed for long periods of time, frequently in daylight,. e.g., Portage County, Ohio, case, April 17, 1966; Red Bluff, Calif. sighting by State Police, August 13, 1960.

(3) Related to the above, it has been argued that UFOs are such unpredictable, elusive, will-o-wisps that they are not readily amenable to scientific study. That they are essentially unrepeatable phenomena, in the sense of laboratory experimentation, hence not a proper matter of scientific investigation.
In addiiton to reflecting a misconception about the nature of the best UFO reports, this argument also reflects a seeming lack of faith in the ingenuity of scientists. Imaginative scientists always have devised new techniques and instruments to tackle new problems, once they have decided that the problems are important.
Collectively, these arguments indicate clearly that a laymens' theory (UFOs are spaceships) has unduly influenced investigation of UFO reports. The seeming improbability of spaceships has caused a lack of attention to specific UFO reports. Those few scientists who have studied the question at all usually have looked at reports so generally that they have seen only the high percentages of poor observations, and the general reasonability of conventional explanations in large numbers of cases. The tendency then has been to assume that if 80-odd percent can be explained, the remaining relatively small percent probably could be too "if we had more complete information."

Scientific authoritarianism has also played a role in down-grading UFO reports when busy scientists have chosen to accept the conclusions of scientific skeptics, notably [Donald] Menzel, rather than what may often (with good reason) seem to be a popular delusion propagated by crackpots and opportunists. Again, this has taken place with no effort to examine the specific reports or to study the skeptics' reasoning about them.

The prevailing practice of approaching the UFO problem on a percentage basis has introduced a subtle bias, not generally recognized, against the possibility that there is a new and potentially significant phenomenon represented among the UFO reports. The importance of the problem of the "signal to noise ratio" cannot be overrated because of the repressive effect it has had on scientific investigation. NICAP, and others, believe there is a "signal" which has been detected and which needs intensive study. Others, such as the Air Force and most professional scientists, have detected only "noise" and have tended to attribute all reports to conventional/psychological causes. In the case of UFOs, it becomes a question of whether we are most interested in the possible "signal" or the known "noise."
In short, a real phenomenon and myths about it may co-exist. Both can be studied. One danger is that the phenomenon may be obscured by human reactions to it. But if one of the real possibilities is that UFOs may be manifestations of extraterrestrial intelligence, as we believe to be the most reasonable interpretation of the "signal," then the "real" aspects deserve a higher priority than the "myth" aspects.

If one seeks to test the Deluded Observer Hypothesis (the working assumption that there is no "signal"), then he will find strong support for this view in terms of the large number of cases in which it is possible to find convincing conventional causes. There is no question that something on the order of 80% of phenomena reported as UFOs can reasonably be explained in this manner. There is no question that "UFO hysteria" during periods of publicized UFO sightings causes inexperienced observers to look at the sky and report the planet Venus as a UFO, or that popular works on the subject have sometimes reported fireballs as UFOs. There is a serious question whether this sort of explanation can reasonably be extrapolated to the 20% of substantial unexplained cases. A crucial test of this hypothesis would be to attempt to find conventional explanations for a strong sample of the hard-core cases. If a special effort in this direction were to begin turning up reasonable answers, the case for unique UFOs would begin to crumble.
The author prefers a more positive statement of the problem in the Hypothesis of UFO Uniqueness (the working assumption that there is a "signal.") This would ignore the percentage arguments entirely (on the grounds that one validated report of an interplanetary spaceship would negate thousands of erroneous reports) and concentrate on a program of gathering quantitative evidence. Organized observation networks using cameras, electro-magnetic sensors, etc., would be developed and an attempt made to obtain multiple observations and photographs, and triangulations.

Why should this be done? Because UFOs have been viewed negatively throughout the meager history of scientific attempts to explain them, and the Deluded Observer Hypothesis has not satisfied many (if any) of those who have investigated the problem most thoroughly. Attempts to account for all UFOs in these terms have been neither convincing nor successful, often leading to preposterous "explanations" for detailed specific cases.

The advantages of testing the UFO Uniqueness Hypothesis include: (a) the obvious desirability of obtaining more precisely observed substantial cases for detailed study; (b) if no substantial data were

obtained after a reasonable period of organized observation, and only identifiable aerial objects were observed, the hypothesis would be severely weakened, its adherents placed in an untenable position; (c) most investigation to date has proceeded on the assumption that no "signal" would be found, with investigators seeking only to find conventional explanations. With the positive approach, the attempt to obtain quantitative data would be made within a psychological framework allowing investigators more leaway to evolve imaginative instrumentation plans. Having a positive bias would make the (supposed) lack of forthcoming data even more conclusive; (d) if, on the other hand, meaningful data were obtained, the advantages are self-evident.
With this approach we would be saying, "All right, there is a `signal'. What is it? Let's design our investigations to study it, and differentiate it from the background `noise.' It may or may not be spaceships, but we will not rule out that possibility a priori." The Deluded Observer Hypothesis, on the other hand, tends to preclude any "signal," whether spaceships or some "natural phenomenon yet to be explained." In view of the admittedly serious background "noise" problem, it is likely that investigators inclined to accept this hypothesis would not find the near-conclusive sort of physical evidence they might require to change their view, lacking a positive attempt to seek it out.

While conceding that the social and psychological aspects of the UFO problem are important and worthy of study, they alone could not answer the real question directly. Many of the obvious things that would be found in social/psychological studies already are well-established facts, e.g., that human observers can be fooled; that popular misconceptions and myths can exist and movements form to exploit them.

Past scientific attempts to rationalize what later proved to be important discoveries purely in terms of "myths" and human frailties should give us pause in the matter of UFOs. In the 18th Century the French academy said "stones don't fall from the sky because there are no stones there," and blamed farmers' reports of meteorites on their lack of sophistication. The discovery of Australopithecus (a "man-ape") in Africa by Raymond Dart in 1924 was greeted derisively at first because of contemporary scientific skepticism about a so-called "missing link" between men and the higher apes. (In this connection, it may be pertinent to quote H.G. Wells from the 1925 edition of The Outline of History: "There may be, there probably are, thousands of deposits still untouched containing countless fragments and vestiges of man and his progenitors....What we know today of early man is the merest scrap of what will presently be known.")

Some parallels of investigations in modern science provide examples of various features discernible in the UFO controversy. Ball lightning, until recently, was generally considered to be a folk myth. Its eventual acceptance undoubtedly was due to several factors, least among which were the repeated observations by laymen. Major scientific centers today investigate ball lightning partly because of its potential as a "weapon," partly because of the discovery that Russian scientists were taking it seriously and studying it. The realization dawned that, in spite of not understanding how ball lightning could exist, we might be overlooking something important that could have serious consequences if ignored.

Other partial parallels are the "science" of detecting enemy missiles; the observations of novas or other unpredictable astronomical events such as fireballs; and efforts to photograph lightning. Once we accept that such things exist, no matter how rare they might be, the problem becomes one of sharpening our tools and planning for the next "episode" so that we will stand a greater chance of recording meaningful information about it. Clues such as the reported recurrence of UFO sightings in the vicinity of power lines, repeated pacing of vehicles, etc., might suggest locations or circumstances which would increase our chances of obtaining better data. In this respect, frequency studies by computer conceivably might suggest optimum sites for UFO instrumentation.

In our view, UFOs are essentially a straightforward physical question (a body of puzzling reports which recur, and a modium of physical evidence suggesting that planned instrumentation would be fruitful.) What has been lacking is the motivation for science to undertake to find an answer. The motivation problem concerns me. The question of science's ability to study UFOs does not. [Jacques] Vallee has properly termed the UFO problem a "challenge to science" and has suggested some promising lines of investigation.

For all these reasons of stereotype, bias, emotion, and the requirements of scientific method, the author favors a program of investigation which focuses on the analysis of existing hard-core cases, plus a positive effort to obtain even more complete data on similar cases in the future.

Certain types or categories of reports would lend themselves to specialized investigation since they involve something in the nature of physical evidence at most, close-range observations at least. Numbered among them are:

(1) Electromagnetic effects on electrical circuits (especially in vehicles)
(2) Landing reports (actual touch-down often with physical markings left on the ground) and near-landings (hovering just off the ground)
(3) Pacing of vehicles (including reports of UFOs blocking the highway)
(4) Physiological effects on UFO witnesses (eye damage, burns, etc.)
(5) Radioactivity (measured, or inferred from witness symptoms)
(6) Radar cases
(7) Satellite object cases (overlaps Vallee's Type II)
(8) Other physical effects such as sounds, shock waves...

If some other mechanism can be discovered to account for the observed or experienced effects. then UFOs and their potential significance might be discounted. However, if these effects are (as we suspect) fairly commonly associated with and possibly caused by UFOs, they should provide many clues to the nature of UFOs.
In any event, the lowest common denominator of what is necessary in UFO investigation is a close study of the best unexplained cases in isolation, at least temporarily, from the Total Phenomenon. The author would view with a jaundiced eye any investigation centered exclusively on the "noise" and postulated on

the alleged improbability that there could be any "signal."

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