

BRIEFING AFIT BY LTCOL FRIEND
9 FEB 1961

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INSTITUTE OF TECHNOLOGY
Air University
United States Air Force
Wright-Patterson Air Force Base, Ohio

REPLY TO
ATTN OF:

SUBJECT: Request for Briefing

TO: Commander
Aerospace Technical Intelligence Center
Attn: Col Wackwitz
Wright-Patterson AFB, Ohio

4E24

Director
Aerospace Studies Inst
ATTN: Archives Branch
Maxwell AFB, Alabama

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January 1961

K273.6012-21
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1. Request a briefing be given by ATIC on UFO programs and problems to an audience of approximately 50 to 75 members of the Institute of Technology student body and faculty. This briefing will be sponsored by the Institute's chapter of Tau Beta Pi and be one of a monthly series of lectures on topics of general technical interest.
2. The time desired for the briefing is 1110 hours on Thursday, 9 February, in the Institute of Technology Auditorium, Building 125. A total of 50 minutes will be allocated for the presentation with possibly 35 minutes for lecture and 15 minutes for a question-answer period.
3. I have discussed this matter informally with Major Friend and Mr. Heatt.

William J. Wilson

WILLIAM J. WILSON
Captain, USAF
Vice President, Ohio Eta of Tau Beta Pi
Box 3336, Institute of Technology

1003845

Unidentified Flying Objects - UFO's

As a term in military parlance, means any air-borne object, usually aircraft, which fails to identify itself to, or to be identified by, trained ground or air-borne visual or radar crews. In such cases it is the duty of the U. S. Air Force, charged with the protection of the nation from possible attack from the air, to secure identification of the UFO and to take appropriate action.

Since 1947, owing to a sequence of bizarre circumstances, UFO has become an omnibus term connoting any object or optical phenomenon, usually aerial, which the observer cannot readily explain. Lacking scientific or technical training, a witness may ascribe unwarranted properties and origin to the UFO. "UFO" is frequently used interchangeably with "flying saucer," a term coined in 1947 as a result of the reported sighting by a civilian pilot, Kenneth Arnold, of a series of disc-like objects which reportedly cavorted about the mountain ridges in the vicinity of Mt. Rainier. This prototype sighting was followed by a wave of reports of unidentified objects of various types (colors, shapes, maneuvers) by observers in various parts of the U.S.A. and in other countries also.

Since then, many such reports of sightings have been made through official channels to the Air Force, which holds the responsibility for the identification of UFO's. Observations have generally occurred in waves, but on the average, since 1947, they have numbered better than one a day. If one notes that many reported sightings are not made through official channels, but to newspapers and to civilian groups interested in the phenomena of UFO's, it can be estimated that the rate of observations may be as high as two or three a day in this country, over a period of a dozen years. France, Italy, England and a number of Latin American countries have also experienced minor waves of UFO reports.

The official Air Force tally of reported sightings follows:

1947	79
1948	143
1949	186
1950	169
1951	121
1952	1501
1953	425
1954	429
1955	404
1956	778
1957	1178
1958	590
1959	364
1960	423
Total	<u>6790</u>

The steady stream of reports has been the cause of concern to the Air Force and detailed investigations have been made to discover the stimuli that give rise to such reports. The Air Force objectives have been to determine (1) whether the reported UFO's constituted a threat to the nation, (2) whether the phenomena had any intrinsic scientific value, and (3) the role UFO's may play as a factor in the sky surveillance program. It has been concluded over the many years of UFO investigations that: (1) the phenomena bore no hostile purport and did not constitute a security threat, (2) there was no compelling reason to believe that the great majority of sightings arose from anything other than misidentification of natural objects and phenomena, and that the real cause of these sightings generally lies in the conditions under which an object or phenomenon is seen, and (3) the continued evaluation of UFO reports is of scientific value and, especially, necessary in the evaluation of the military sky surveillance problem.

It has been established that many sightings have arisen from the viewing of frequently startling natural objects for the first time, e.g., of very bright meteors, high altitude scientific balloons (which when caught in the jet stream can attain high velocity), flocks of migrating birds, and especially distant

terrestrial or celestial objects seen under unusual meteorological conditions, such as those that produce mirages, which can distort, displace, and animate objects seen visually or by radar. Such meteorological conditions, some thoroughly understood (mirages) and some poorly understood (as ball lightning) can easily cause even an experienced observer to ascribe the light he sees to a tangible, nearby, self-propelled object, obviously unidentified.

Indeed, it is not at all surprising that, with so many more people turning their attention skyward, many experience an aerial phenomenon they cannot readily explain. Initial experiences with unusual events have often challenged scientifically trained men.

Virtually all the reports received by the Air Force have been highly subjective, lacking such objective data as pictures, material fragments, spectroscopic analysis of lights seen, or precise technical data on trajectories, distances, accelerations, etc. As the course of investigation, over the years, of subjective reports often containing emotionally charged impressions, progressed it became clear that the majority of reports could be correlated with the appearance of aircraft, birds, celestial objects, balloons, etc., under special conditions.

As the experience of the Air Force in the analysis of UFO reports grew, the percentage of unexplained cases fell from more than 10% to as little as 2 or 3%. It is readily admitted that this small residue-as reported-defies logical explanation. For none of the extraordinary "unknowns," however, has there been scientific data on which to base a valid, definitive investigation.

The early difficulties in coming to grips with the successive waves of sightings, coupled with concern that UFO reports, often made by pilots, might constitute a threat to the national security (and the consequent, and unfortunate

air of secrecy imposed in the early years of UFO reports), had an electrifying effect on the imaginations and emotions of a surprising fraction of the populace. It led to an inordinate interest in UFO's. Indeed, a logical, albeit scientifically unsupported "theory" of UFO's arose. This concept was abetted by the possibility of life elsewhere in the universe which modern astronomy envisions, and by a strong, often unconscious, desire on the part of many people to believe in the possibility of visitors from outer space, and, unfortunately, to confuse possibility with probability.

This theory of UFO's, mainly because of its strong emotional appeal, sometimes bordering on religious conviction, deserves mention: It is logical to assume that we on earth are not the only intelligences in the universe; so it follows that those civilizations on other planets, perhaps planets in other solar systems, far more advanced than ours, might express an interest in visiting this planet periodically, as we might make periodic checks on the social progress of a tribe of aborigines. The earth has been visited many times in the past by explorers from other worlds (attested to, the theory continues, by historical accounts, long before 1947, of strange apparitions in the sky) but such visits have been greatly increased since the advent of the A- and H-bombs, a "tampering" with nature that has caused concern to other intelligence in space. This increase in visitation was signalled by the wave of incidents that started in June 1947, one of which was the now famous Arnold case.

It is for the psychologist and the sociologist more than for the physical scientist to comment on the widespread emotional appeal of this concept, and on the persistent attempts to link reported UFO sightings with visitations from space in the face of the continued lack of scientific evidence for such.

It is amply evident that UFO's and "flying saucers" exist as reports. This has led to the serious quip that "a flying saucer is any aerial sighting or

phenomenon which remains unexplained long enough for someone to write a report about it." It is the problem of the serious investigator to probe for the stimuli that give rise to the reports.

The U. S. Air Force investigators have long accepted the fact that most of the originators of UFO reports are sincere people, interested in the welfare and security of the country, and that they are honestly puzzled by the sightings that they report. Their frequent readiness to ascribe a UFO to extraterrestrial sources, their emotional attachment to this explanation, and their reluctance to take into account the failure of the continuous and extensive surveillance of the sky by trained observers, both military and civilian (such as the professional and volunteer (Moonwatch) artificial satellite observers), to produce UFO sightings is surprising. It hardly appears credible that spacecraft should frequently announce themselves readily to casual observers and craftily avoid detection by the constant professional military and civilian surveillance of the sky.

Nonetheless, it must be recognized that our knowledge of the universe and its contents, and of the physics of our atmosphere, is still imperfect, and that there may be "more things in Heaven and earth, Horatio, than are dreamt of in your philosophy." UFO sightings, so long as they continue, deserve serious study, and may lead to not only advances in physical knowledge, but in the area of human behavior as well.