UFOs – A CHALLENGE TO OBSERVATION

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There have been times during the past 20 years when reports of Unidentified Flying Objects (UFOs) in our atmosphere have been so numerous as to suggest that perhaps we should turn the whole business over to our colleagues who specialize in air pollution. Cosmic fly-ash, that indefatigable student of scientific anomalies, Charles Fort, might have joked, with one eye on that hypothesis of extraterrestrial origin whose seeming absurdity provokes near-indignation among many scientists.

Although I do not really know that anyone has yet cited the high density of UFOs as a threat to air-quality, it is indeed the case that our field of the atmospheric sciences has repeatedly been invoked (all too often with but slight attention to fact) to explain away this persistently baffling phenomenon of the past two decades. Dr. Donald Menzel, former director of Harvard Observatory, in a 1963 book bearing the subtitle, "A Scientific Examination of a Major Myth of the Space Age", devotes many interesting pages to his contention that UFO observations result chiefly from a host of phenomena in the general area of meteorological optics.

Philip J. Klass, an *Aviation Week* editor, writes a book developing his view that the really interesting UFO reports are, in fact, some freak atmospheric electrical phenomenon of plasmoid nature. Dr. E. U. Condon was quoted, over a year before the recent release of his *Scientific Study of*

Unidentified Flying Objects, as saying that "it is my bet that all of this will be explained one day when we knew more about atmospheric phenomena." Air Force Project Bluebook spokesmen have, over the past fifteen years, issued many official UFO explanations couched in terms of atmospheric phenomena of one sort or another. My blunt advice to you is to examine carefully each of the above four cited sources of viewpoints to the effect that UFOs are in our department. I believe you may come away from the examination little more impressed than I am. But the exercise will make you aware that so many claims that a substantial portion of all this nonsense about UFOs stems from still-poorly-understood atmospheric phenomena do warrant attention on our part to this enigma that doesn't seem to want to go away.

I have given the UFO problem a great deal of attention during the past two and a half years, have learned a few new bits and pieces of atmospheric physics in the course of the effort, and am one of the first to admit that there are plenty of reports that stem from misidentified meteorological, astronomical, and optical phenomena. But what I have found astonishing beyond all brief description is the magnitude of the residual, unexplained reports from observers whose background argues a degree of credibility and reliability that simply must not any longer be ignored. I must say to you that I regard the total stock of evidence arguing for the existence of some entirely real and scientifically fascinating phenomenon within the core of the best UFO reports to be so overwhelming in its dimensions that I marvel over and over that we have all managed to go along for over 20 years leaving this matter in the scientific limbo to which it has been consigned.

Let me speak bluntly in saying that my study of the history of the UFO problem leaves me extremely unhappy with official Air Force handling of its assigned responsibility for keeping track of the UFO situation. It would not have been so serious a matter had not USAF public information officers insisted over the years on promulgating the almost wholly unbased notion that "the best scientific talents available to the United States Air Force" were being utilized in Project Bluebook UFO studies. That's where the real mischief was done. For that kept all of the scientific community turned-off, lulled Congressmen and editors and members of the public at large into believing that, despite a continual flow of reports from many sources, there must not be anything to all the silly talkabout UFOs.

Some have felt that USAF and the CIA know all about the UFO problem, are aware of their extraterrestrial nature, but are keeping this information

from the public and from the world at large (for any of several suggested reasons). Such views come from very sober and serious UFO investigators. Innumerable stunning UFO cases are on record in which the main observations, visual or radar, have come from within military channels since 1947. It is particularly the failure of USAF to respond to these intra-military reports that leads well-informed UFO students to hypothesize very high-level coverup. After weighing that possibility just as carefully as I could in the past couple of years, I am growing steadily more convinced that the basic reason for failure of the Air Force to react to the hundreds of such cases on record at Wright-Patterson APB (Bluebook has long been located there) lies **not** in any high-level coverup but in the fact that, in virtually every instance in which USAF has sought outside scientific advice on its UFO program, it has received basically negative recommendations. From Dr. Irving Langmuir's "Forget it!", through many panels composed of quite well-known scientists, through years of direct consultative advice, down to last month's strongly negative recommendations from Dr. Condon (with almost booming echoes from the 11-man National Academy of Sciences ad hoc review panel), USAF has been told that there's nothing of scientific significance in all those UFO reports. In an attempt to get some feel for where this puts USAF, I try to visualize some general who, studying a baffling airborne radar-visual sighting from some distant USAF base, and perhaps dimly aware that there have been others like it before, has to make up his mind about whether there really could be something in all these UFO reports or not. To have to decide between what some pilot reported over Castle AFB and what some Nobelist has just told the Air Force about the "UFO myth" might, I believe, pose a touchy choice for the general. Safer to take the Nobelist's word; forget this one; wait and see. Then the general is transferred in a matter of months to a different command, and some new general goes through a similar decision-process, and so pass twenty years. No one ever secures a synoptic view of the whole problem, no one ever studies any fraction of the now 12,000 UFO reports up at Wright-Patterson AFB. That picture has become my inferential alternative to high-level coverup. I think that a long series of superficial scientific consultative advice, based on almost no direct contact with UFO witnesses nor with any substantial portion of the now enormous volume of report-material on UFOs here and abroad, has been a prime factor in shaping Air Force policies in handling the UFO problem.

Unfortunately, close checking seems to me to argue cogently that it's the pilot, not the typical Big Scientist who had better be listened to in many UFO matters. Science is not always the open-minded, judgment-

suspending operation that all of us would like to think it is. Important scientific problems have been grossly misjudged before, with almost all of the scientific establishment arrayed against recognition of some new development, some bothersomely puzzling body of evidence that seems to conform so poorly to accepted scientific views that a majority of scientists feel quite comfortable about rejecting it as just too nonsensical. Of course, to cite such historical situations does not at all prove that we face one with respect to UFOs. But I personally believe we do. And I don't speak as an armchair theorizer herein.

And now we have before us the Condon Report to weigh into the scales along with 20 years of related evidence.

A month of study and reading and checking of the Condon Report lies behind me as I speak to you. My assessment of the Condon Report and its strongly negative recommendations as to the slight scientific significance of UFO matters is this: It appears to be a half-million dollars' worth of the worst scientific advice USAP has yet received on UFOs.

Not that it does not have some useful sections, not that I take issue with every case-analysis in the small sample of about 90 that it discussed. But, taken in toto and evaluated by rather ordinary criteria of what constitutes good scientific investigation, I have to say that it is weak to the point of being only slightly superior to the years of superficial Project Bluebook "explanations" that have so long drawn criticism from concerned students of the UFO problem. Here, however, the explanations come from a group that was supposed to deliver a definitive study of the UFO problem. Under the misimpression that the Condon Report brings the Final Answer, editors by the column-yard have nodded solemn approval that now we can forget the whole ridiculous UFO business, inasmuch as the Condon Project and the Academy have spoken. My advice is: Take a good look at the third of that Report which actually deals with UFO cases. If you are at all aware of the nature of the UFO problem, you will, I believe, join me in saying that we'd certainly better do all we can to make certain that this bulky report does not weigh very heavily in holding down and delaying further progress towards clarification of a problem crying for attention from our best scientific talent.

The report is so non-representative of what most of us would term a high-caliber study that I would need four or five times my available time to spell out even selected examples of its deficiencies. Its few bright spots are lost in the mass of tendentious argumentation, incomplete case-reporting, belaboring of trivial and obviously non-significant cases, and in its failure to confront more than a trifling number of the classic UFO cases of the past 20 years. I am preparing a fairly detailed discussion of my many specific objections, and interested AMS members can write to me for copies of the completed critique. Aside from the few examples that I shall present in my verbal remarks, I think your best way of getting a taste of all this is to purchase the recently published paperback unabridged edition of the Condon Report and study it yourself. Examine the type of "explanation" used to try to account for the 5/20/50 sighting by Dr. Seymour Hess (and ask why the 4/24/49 sighting by another of our colleagues, C. B. Moore, is absent from the Report). Note the preposterous attempt to account for the Continental Divide, N. M., radar-visual case of 1/26/53 in terms of an hourlate, slow-leaking pibal from Winslow that gets caught up in the oddest "mesoscale low" in meteorological history. Ponder the atmospheric optics in terms of which the long-famous 6/29/54 BOAC Stratocruiser case is purportedly explained, and note the last desperate suggestion that "this unusual sighting should therefore be assigned to the category of some almost certainly natural phenomenon, which is so rare that it apparently has never been reported before or since."

Follow that one up, if you have patience, with the next one in the Report where a large, round, white object described by the F-94 crew chasing it as "larger than any known type of aircraft" and reported as capable of being able to reverse direction almost instantly, and displaying what the aircrew described as two "windows" from which emanated a dim reddish light, is blandly described by the Report analyst to be "typical of the description of a pibal balloon by those not familiar with weather instrumentation." Perhaps we should urge Congress to cut down ESSA's appropriations if it has been squandering funds on pibals decked out like that one and provided a power source that can outfly an F-94. Many more such examples can be cited. And so can ridiculously trivial cases that do not belong in a study putatively aimed at accounting for the really difficult puzzlers. And a long, long long list of omitted but important cases can be ticked off to show that strawmen had no place in this Report, despite their presence.

And finally, take a good long look at the substantial number of cases, which despite all of the above, are left as Unexplained in the final analysis. The two best examples of this in the Report are the Lakenheath, England, case of 8/13/56 and the B-47 case of 9/19/57; but a dozen or so more are scattered through the sample of only about 90 cases

analyzed. One has to have independent information about the full report-information on some of the cases to suspect the real nature of the inexplicability attached to some of the Unexplained cases (e,g., Beverly, Mass., 4/22/66, for which I have interviewed 10 witnesses, but for which only a smattering of the most significant interview details are recounted in the Condon Report). A case which is regarded as either weak to the point of suspicion (Falcon Lake, Manitoba, 5/20/67) runs on for 7 pages. And five pages are devoted to a hoax balloon case in Boulder (April Fool's Day, 1967), while the most impressive portions of such complex sightings as Joplin, Mo., 1/17/67, or Milledgeville, Ga., 10/20/67) are passed over in a mere page or less. These aspects of the Report will, of course, pass unnoticed by most scientists not already well-aware of the individual cases. Omission of names, dates, and locales, from the bulk of the cases will make it difficult for many to carry out independent checks, unfortunately.

In my remarks, I shall try to summarize these and other objections I have to the Condon Report. I shall try to point out what seems to be needed, the pressing need for instrumental observations, for entirely new types of detectors, possibly designed to exploit the evidence that a broad range of electromagnetic disturbances have been reported near UFOs.

I shall emphasize the way in which existing sky-monitoring systems, both optical and electromagnetic, have filter-factors built into them in such a manner as to reject much of what might otherwise stand as valuable UFO observational evidence. Your insterest (sic) in instrumentation and observation makes you a group perhaps ideally suited to conceive still unrecognized means of substituting objective instrumental data for the present preponderance of subjective anecdotal data on UFOs.

But I know, perhaps even better than you, that none of the above developments has a chance of being brought about until the negative influence of the Condon Report is undone — and that has now become the chief order of the day in pushing for progress on this intriguing and unprecedented problem of the Unidentified Flying Objects.