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DYNAMIC EXPLORATION OF [illegible] ADVERSE [illegible]

OF [illegible] TURBIDITY CURRENTS

OCCURRED BY [illegible] OF [illegible] PITTSBURGH, CA

[illegible] 26, 1969

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F. C. DEPALO

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16 February 1953

MEMORANDUM FOR: Assistant Director for Scientific Intelligence

FROM : F. C. Durant

SUBJECT : Report of Meetings of the Office of Scientific Intelligence Scientific Advisory Panel on Unidentified Flying Objects, January 14 - 18, 1953

PURPOSE

The purpose of this memorandum is to present:

a. A brief history of the meetings of the O/SI Advisory Panel On Unidentified Flying Objects (Part I),

b. An unofficial supplement to the official Panel Report to AD/SI setting forth comments and suggestions of the Panel Members which they believed more appropriate for inclusion in the formal report (Part II).

PART I: HISTORY OF MEETINGS

GENERAL

After consideration of the subject of "unidentified flying objects" at the 4 December meeting of the Intelligence Advisory Committee, the following action was agreed:

"The Director of Central Intelligence will:

a. Enlist the services of selected scientists to review and appraise the available evidence in the light of pertinent scientific theories...."

Following the delivery of this action to the Assistant Director for Scientific Intelligence a preliminary investigation

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an Advisory Panel of selected scientists was assembled. In cooperation with the Air Technical Intelligence Center, case histories of reported sightings and related material were made available for their study and consideration.

Present at the initial meeting (29 February, 1 March) were: Dr. H. P. Robertson, Dr. John W. Simpson, Dr. Sherman Fogg, Dr. Frank A. Gerbodo, Mr. Philip G. Strong, Jr., Col. Frederick G. B. Ohr (ISI Division), Mr. Robert P. Stevenson (ISE Division), and the writer. Dr. Donald Menzel, Dr. Lloyd V. Berkner, was absent until Friday afternoon. Messrs. Ohr and Stevenson were present throughout the meeting to familiarize themselves with the subject, represent the intelligence interest of their Divisions, and assist in administrative support of the meetings. (A list of personnel concerned with the meetings is given in Tab A).

MEETING

The AD/SI opened the meeting, reviewing OTA interest in the subject and action taken. This review included the mention of the O/SI Study Group of August 1952 (Strong, Ring, and Durant) culminating in the briefing of the DCI, the NSC Member 21 briefing, A.F. orders NIS consider (Menzel, Wright to NIS (Chadwell, Robertson and Durant), and O/SI concern over potential dangers to national security indirectly related to the sightings. Mr. Strong summarized these potential dangers. Following this introduction, Dr. Chadwell turned the meeting over to

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Dr. Robertson as Chairman of the Panel. Dr. Robertson reviewed the evidence available and requested consideration of specific reports and letters be taken by certain individuals present (Tab B). For example, case histories involving radar or radar and visual sightings were selected for Dr. Alvarez, while reports of Green Fireball phenomena, Project Twinkle and suggested programs of investigation were routed to Dr. Page. Following these remarks, the motion pictures of the sightings at Tremonton, Utah (2 July 1952) and Great Falls, Montana (15 August 1950) were shown. The meeting adjourned at 1215.

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The [illegible] of the Panel [illegible] Dr. R. S. [illegible] Laboratory [illegible] CIA personnel [illegible] Capt. [illegible] Dr. [illegible] were present.

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THURSDAY MORNING

The third and fourth meetings of the Panel were held Thursday, 15 January, commencing at 0900 with a two-hour break for luncheon. Besides Panel members and CIA personnel, Mr. Ruppelt and Dr. Hynek were present for both sessions. In the morning, Mr. Ruppelt continued his briefing on ATIC collection and analysis procedures. The Project STORK support at Battelle Memorial Institute, Columbus, was described by Dr. Hynek. A number of case histories were discussed in detail and a motion picture film of seagulls was shown. A two hour break for lunch was taken at 1200.

THURSDAY AFTERNOON

At 1400 hours Lt. Col. Odee gave a 40-minute briefing of Project TWINKLE, the investigatory project conducted by the Air Force Meteorological Research Center at Cambridge, Mass. In this briefing he pointed out the many problems of setting up and manning 24-hour instrumentation watches of patrol aircraft searching for sightings of U.F.O.'s.

At 1615 Brig. Gen. William M. Garland joined the meeting with AD/SI. General Garland expressed his support of the Panel's efforts and stated three personal optimisms:

a. That greater use of Air Force intelligence officers in the field (for follow up investigation) appeared desirable, but that they required thorough briefing.

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b. That vigorous effort should be made to declassify as many of the reports as possible.

c. That some increase in the ATIC section devoted to U.F.O. analysis was indicated.

This meeting was adjourned at 1700.

FRIDAY MORNING

The fifth session of the Panel convened at 0900 with the same personnel present as enumerated for Thursday (with the exception of Brig. Gen. Garland).

From 0900 - 1000 there was general discussion and study of reference material. Also, Dr. Hynek read a prepared paper making certain observations and conclusions. At 1000 Mr. Fournet gave a briefing on his fifteen months experience in Washington as Project Office for U.F.O.'s and his personal conclusions. There was considerable discussion of individual case histories of sightings to which he referred. Following Mr. Fournet's presentation, a number of additional case histories were examined and discussed with Moore, Fournet, Ruppelt, and Hynek. The meeting adjourned at 1200 for luncheon.

FRIDAY AFTERNOON

This session opened at 1400. Besides Panel members and CIA personnel, Dr. Hynek was present. Dr. Lloyd V. Berkner, as Panel Member, was present at this meeting for the first time. Progress of the meetings was reviewed by the Panel Chairman and tentative

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conclusions reached. A general discussion followed and tentative recommendations considered. It was agreed that the Chairman should draft a report of the Panel to AD/SI that evening for review by the Panel the next morning. The meeting adjourned at 1715.

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At 0945 the Chairman opened the seventh session and submitted a rough draft of the Panel Report to the members. This draft had been reviewed and approved earlier by Dr. Dryden. The next two and one-half hours were consumed in discussion and revision of the draft. At 1100 the AD/SI joined the meeting and reported that he had shown and discussed a copy of the initial rough draft to the Director of Intelligence, USAF, whose reaction was favorable. At 1200 the meeting was adjourned.

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At 1400 the eighth and final meeting of the Panel was opened. Discussion and rewording of certain sentences of the Report occupied the first hour. A copy of the final report is appended as Tab (illegible) This was followed by a review of work accomplished by the Panel and restatement of individual Panel Members' opinions and suggestions on details that were felt deep, opinions for inclusion in the formal report. It was agreed that the writers would incorporate these comments in an informal report to the AD/SI. The material below reports the final discussion.

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PART II: COMMENTS AND RECOMMENDATIONS OF PANEL

GENERAL

The Panel Members were impressed (as have been others, including O/SI personnel) in the lack of sound data in the great majority of case histories; also, in the lack of speedy follow-up due primarily to the modest size and limited facilities of the ATIC section concerned. Among the case histories of significant sightings discussed in detail were the following:

Bellefontaine, Ohio (1 August 1952); Tremonton, Utah (2 July 1952); Great Falls, Montana (15 August 1950); Irak, Montana (1 September 1952); Washington, D. C. area (19 July 1952); and Haneda A.F.B., Japan (5 August 1952), Port Huron, Michigan (29 July 1952); and Presque Isle, Maine (10 October 1952).

After review and discussion of these cases (and about 25 others, in less detail), the Panel concluded that reasonable explanations could be suggested for most sightings and by deduction and scientific method it could be induced (given additional data) that other cases might be explained in a similar manner. The Panel pointed out that because of the brevity of some sightings (e.g. 2-3 seconds) and the inability of the witnesses to express themselves clearly (semantics) that conclusive explanations could not be expected for every case reported. Furthermore, it was considered that, normally, it would be a great waste of effort to try to solve most of the sightings, unless such action would benefit a training and educational program (see below). The writings of Charles Fort were referenced to show

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that "strange things in the sky" had been recorded for hundreds of years. It appeared obvious that there was no single explanation for a majority of the things seen. The presence of radar and astronomical specialists on the Panel proved of value at once in their confident recognition of phenomena related to their fields. It was apparent that specialists in such additional fields as psychology, meteorology, aerodynamics, ornithology and military air operations would extend the ability of the Panel to recognize many more categories of little-known phenomena.

OF LACK OF DANGER

The Panel concluded unanimously that there was no evidence of a direct threat to national security in the objects sighted. Instances of "Foo Fighters" were cited. These were unexplained phenomena sighted by aircraft pilots during World War II in both European and Far East theaters of operation wherein "balls of light" would fly near or with the aircraft and maneuver rapidly. They were believed to be electrostatic (similar to St. Elmo's fire) or electromagnetic phenomena or possibly light reflections from ice crystals in the air, but their exact cause or nature was never defined. Dr. Robertson and Alvarez had been concerned in the investigation of these phenomena, but David T. Griggs (Professor of Geophysics at the University of California at Los Angeles) is believed to have been the most knowledgeable person on this subject. If the term "flying saucers" had been popular in 1943 - 1945, these objects would

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have been so labeled. It was interesting that in at least two cases reviewed that the object sighted was categorized by Robertson and Alvarez as probably "Foo Fighters", to date unexplained but not dangerous; they were not happy thus to dismiss the sightings by calling them names. It was their feeling that these phenomena are not beyond the domain of present knowledge of physical science, however.

AIR FORCE REPORTING SYSTEM

It was the Panel's opinion that some of the Air Force concern over U.F.O.'s (notwithstanding Air Defense Command anxiety over fast radar tracks) was probably caused by public pressure. The result today is that the Air Force has instituted a fine channel for receiving reports of nearly anything anyone sees in the sky and fails to understand. This has been particularly encouraged in popular articles on this and other subjects, such as space travel and science fiction. The result is the mass receipt of low-grade reports which tend to overload channels of communication with material quite irrelevant to hostile objects that might some day appear. The Panel agreed generally that this mass of poor-quality reports containing little, if any, scientific data was of no value. Quite the opposite, it was possibly dangerous in having a military service foster public concern in "nocturnal meandering lights". The implication being, since the interested agency was military, that these objects were or might be potential direct threats to national security. Accordingly, the need for dampening made itself apparent. Comments on a possible educational program are enumerated below.

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It was the opinion of Dr. Robertson that the "saucer" problem had been found to be different in nature from the detection and investigation of German V-1 and V-2 guided missiles prior to their operational use in World War II. In this 1943-1944 intelligence operation (CROSSBOW), there was excellent intelligence and by June 1944 there was material evidence of the existence of "hardware" obtained from crashed vehicles in Sweden. This evidence gave the investigating team a basis upon which to operate. The absence of any "hardware" resulting from unexplained U.F.O. sightings leads a "will-of-the wisp) nature to the AMIC problem. The results of their investigation, to date, strongly indicate that no evidence of hostile act or danger exists. Furthermore, the current reporting system would have little value in the case of detection of enemy attack by conventional aircraft or guided missiles; under such conditions "hardware" would be available almost at once.

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It was interesting to note that none of the members of the Panel were loath to accept that this earth might be visited by extra-terrestrial intelligent beings of some sort, some day. What they did not find was any evidence that related the objects sighted to space travelers. Mr. Fournet, in his presentation, showed how he had eliminated each of the known and probable causes of sightings leaving him "extra-terrestrial" as the only one remaining in many cases. Fournet's background as an aeronautical engineer and technical intelligence

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officer (Project Officer, BLUEBOOK for 15 months) could not be slighted. However, the Panel could not accept any of the cases sighted by him because they were raw, unevaluated reports. Terrestrial explanations of the sightings were suggested in some cases and in others the time of sighting was so short as to cause suspicion of visual impressions. It was noted by Dr. Goudsmit and others that extraterrestrial artifacts, if they did exist, are no cause for alarm; rather, they are in the realm of natural phenomena subject to scientific study, just as cosmic rays were at the time of their discovery 20 to 30 years ago. This was an attitude in which Dr. Robertson did not concur, as he felt that such artifacts would be of immediate and great concern not only to the U. S. but to all countries. (Nothing like a common threat to unite peoples!) Dr. Page noted that present astronomical knowledge of the solar system makes the existence of intelligent beings (as we know the term) elsewhere than on the earth extremely unlikely, and the concentration of their attention by any controllable means confined to any one continent of the earth quite improbable.

TRACKING USAF SIGHTING

This case was considered significant because of the excellent documentary evidence in the form of Kodachrome motion picture films (about 1600 frames). The Panel studied these films, the case history, ATIC's interpretation, and received a briefing by representatives of the USN Photo Interpretation Laboratory on their analysis of the film. This team had expended (at Air Force request, approximately

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1000 man-hours of professional and sub-professional time in the preparation of graph plots of individual frames of the film, showing apparent and relative motion of objects and variation in their light intensity. It was the opinion of the P.I.L. representatives that the objects sighted were not birds, balloons or aircraft, were "not reflections because there was no blinking while passing through 60° of arc" and were, therefore, "self-luminous". Plots of motion and variation in light intensity of the objects were displayed. While the Panel Members were impressed by the evident enthusiasm, industry and extent of effort of the P.I.L. Co., they could not accept the conclusions reached. Some of the reasons for this were as follows:

a. A semi-spherical object can readily produce reflection of sunlight without "blinking" through 60° of arc travel.

b. Although no data was available on the "glint" of birds or polyethylene balloons in bright sunlight, the apparent motions, sizes and brightnesses of the objects were considered strongly to suggest birds, particularly when the Panel viewed a short film showing high reflectivity of seagulls in bright sunlight.

c. P.I.L. description of the objects sighted as "tubular, bluish-white" in color would be consistent in terms of specular reflections of sunlight from convex surfaces where the brilliance of the reflection would obscure other portions of the object.

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d. Objects in the Great Falls case were believed to have probably been aircraft, and the bright lights such reflections.

e. There was no valid reason for the attempt to relate the objects in the Tremonton sighting to those in the Great Falls sighting. This may have been due to misunderstanding in their directive. The objects in the Great Falls sighting are strongly suspected of being reflections of aircraft known to have been in the area.

f. The intensity change in the Tremonton lights was too great for acceptance of the P.I.L. hypothesis that the apparent motion and changing intensity of the lights indicated extremely high speed in small orbital paths.

g. Apparent lack of guidance of investigators by those familiar with U.F.O. reports and explanations.

h. Analysis of light intensity of objects made from duplicate rather than original film. The original film was noted to have a much lighter background (affecting relative brightness of object) and the objects appeared much less bright.

i. Method of obtaining data of light intensity appeared faulty because of unsuitability of equipment and questionable assumptions in making averages of readings.

j. No data had been obtained on the sensitivity of Kodachrome film to light of various intensities using the same camera type at the same lens openings.

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k. Hand "jitter" frequencies (obtainable from early part of Tremonton film) were not removed from the plots of the "single pass plots" at the end of the film.

The Panel believed strongly that the data available on this sighting was sufficient for positive identification if further data is obtained by photographing polyethylene "pillow" balloons released near the site under similar weather conditions, checking bird flight and reflection characteristics with competent ornithologists and calculating apparent "G" forces acting upon objects from their apparent tracks. It was concluded that the results of such tests would probably lead to creditable explanations of value in an educational or training program. However, the Panel noted that the cost in technical manpower effort required to follow up and explain every one of the thousand or more reports received through channels each year (1,500 in 1952) could not be justified. It was felt that there will always be sightings, for which complete data are lacking, that can only be explained with disproportionate effort and with a long time delay, if at all. The long delay in explaining a sighting tends to eliminate any intelligence value. The educational or training program should have as a major purpose the elimination of popular belief that every sighting, no matter how poor the data, must be explained in detail. Attention should be directed to the requirement among scientists that a new phenomena, to be accepted, must be reliably and convincingly documented. In other words, the burden of proof is on the sighter, not the explainer. Why?

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POTENTIAL RELATED DANGERS

The Panel Members were in agreement with O/SI opinion that, although evidence of any direct threat from these sightings was wholly lacking, related dangers might well exist resulting from:

a. Misidentification of actual enemy artifacts by defense personnel.

b. Overloading of emergency reporting channels with "false" information ("noise to signal ratio" analogy--Barker).

c. Subjectivity of public to mass hysteria and greater vulnerability to possible enemy psychological warfare.

Although not the concern of CIA, the first two of these problems may seriously affect the Air Defense intelligence system, and should be studied by experts, possibly under ARL. If U.S.A.F. is become discredited in a reaction to the "flying saucer" issue, or if reporting channels are saturated with false and poorly documented reports, our capability of detecting hostile activity will be reduced. Dr. Page noted that more competent screening or filtering of reported sightings at or near the source is required, and that this can best be accomplished by an educational program.

GEOGRAPHIC LOCATIONS OF UNEXPLAINED SIGHTINGS

The map prepared by ATIC showing geographic location of officially reported unexplained sightings (1952 only) was examined by the Panel. This map showed clusters in certain strategic areas such as Los Alamos. This might be explained on the basis of 24-hour watchful guard and

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awareness of security measures near such locations. On the other hand, there had been no sightings in the vicinity of sensitive related AF establishments while there were occasionally multiple cases of unexplained sightings in non-strategic areas. Furthermore, there appeared to be no logical relationship to population centers. The Panel could find no ready explanation for these clusters. It was noted, however, that if terrestrial artifacts were to be observed it would be likely that they would be seen first near foreign areas rather than central U. S.

DISTRIBUTION TO GRAND DATA

The Panel was of the opinion that the present ATIC program to place 100 inexpensive 35 mm. stereo cameras in the hands of various airport control tower operators would probably produce little valuable data related to U.F.O.'s. However, it was recognized that such action would tend to allay public concern in the subject until an educational program had taken effect. It was believed that procurement of these cameras was partly the result of public pressure in July 1952. With the poor results of the year-long Project TWINKLE program of 24-hour instrumentation watch (two frames of film showing nothing distinguishable), a widespread program of sky-watching would not be expected to yield much direct data of value.

There was considerable discussion of a possible "sky patrol" by amateur astronomers (Hynek) and by wide-angle cameras (Page). Dr. Page and Dr. Robertson pointed out that at present a considerable fraction

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of the sky is now—and has been for many years—under surveillance every clear night in several meteor and aurora observing programs as well as sky mapping programs at the various locations listed below. Although the attention of these astronomers is largely directed toward identified rather than unidentified objects, no case of any striking unidentified object is known to Dr. Page or Dr. Hynek. Such an object would most certainly be reported if found on patrol plates.

A case was cited where an astronomer refused to interrupt his exposure in order to photograph an alleged sighting in a different part of the sky. This led Dr. Hynek to say that, if a program of watching could be an adjunct of planned astronomical programs, little cost would be involved and that the trained astronomical personnel might photograph a sighting of an unidentified object.

The location of some of these programs and their directors are believed to be:

a. Harvard University, Cambridge and New Mexico (meteor patrol)—Whipple.

b. Yerkes Observatory, University of Chicago and Fort Davis, Texas (several programs)—Meinel (aurorae), Kuiper (asteroids), Morgan (wide angle camera).

c. University of Alaska, Fairbanks (aurorae)—Silvey

d. Dominion Observatory, Ottawa (meteors)—Millman

e. Palomar Observatory, California (sky map)—Minkowski

f. Lick Observatory, California (sky map)—Shane

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It was agreed by the Panel that no government-sponsored program of optical nation-wide sky patrol is worthwhile at the present time, and that the encouragement of amateur astronomers to undertake such a program might have the adverse effect of over-emphasizing "flying saucer" stories in the public mind. However, the issue of radar'scope cameras for recording peculiar radar echoes would serve several purposes, including the better understanding of radar interference as well as identification of U.F.O.'s.

RADAR PROBLEM OF ACTUAL INTERFERENCE

This characteristic problem of radar operation wherein the pulse signal (of approximately the same frequency) from station A may be picked up on the screen of station B and show as a high-speed track or series of dots was recognized to have probably caused a number of U.F.O. reports. This problem was underlined by information received indicating ADC concern in solving this problem of signal identification before service use of very high-speed aircraft or guided missiles (1955-1956). Dr. Perkins believed that one answer to this problem was the use of a "doppler filter" in the receiving circuit. Dr. Alvarez suggested that the problem might be better solved by the use of a "controlled jitter" wherein the operator receiving "very fast tracks" (on the order of 1000- 10,000 m.p.h.) would operate a circuit which would alter slightly his station's pulse frequency rate. If the signal received on the screen had been caused by actual interference with another station, the track would now show itself at a different distance

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from the center of the screen, if it still appeared at all. Dr. Alvarez felt such a mechanical solution was simpler and would cost much less than a "doppler filter".

[illegible] CASES [illegible]

Two reported cases were examined: one at Palomar Mountain, California, in October 1949, when cosmic ray counters went "off scale for a few seconds", apparently while a "V" of flying saucers was observed visually; and two, a series of observations by the "Los Alamos Bird Watchers Association" from August 1950 to January 1951, when cosmic ray coincidence counters behaved queerly. Circuit diagrams and records were available for the latter, and Dr. Alvarez was able quickly to point out that the recorded data were undoubtedly due to instrumental effects that would have been recognized as such by more experienced observers.

The supposition that radioactive effects were correlated with unidentified flying objects in these two cases was, therefore, rejected by the Panel.

EDUCATIONAL PROGRAM

The Panel's concept of a broad educational program integrating efforts of all concerned agencies was that it should have two major aims: training and "debunking".

The training aim would result in proper recognition of unusually illuminated objects (e.g., balloons, aircraft reflections) as well as natural phenomena (e.g., stars, fireballs, mirages, nacreous clouds). Both visual and radar recognition are concerned. There would be many

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levels in such education from enlisted personnel to command and research personnel. Relative emphasis and degree of explanation of different programs would correspond to the categories of duty (e.g., radar operators pilots; control tower operators; Ground Observer Corps personnel; and officers and enlisted men in other categories.) This training should result in a marked reduction in reports caused by misidentification and resultant confusion.

The "debunking" aim would result in reduction in public interest in "flying saucers" which today evokes a strong psychological reaction. This education could be accomplished by mass media such as television, motion pictures, and popular publications. Basis of such education would be actual case histories which had been puzzling at first but later explained. As in the case of conjuring tricks, there is much less stimulation if the "secret" is known. Such a program should tend to reduce the current gullibility of the public and consequently their susceptibility to clever hostile propaganda. The Board noted that the general absence of Russian propaganda based on a subject with so many obvious possibilities for exploitation might indicate a possible Russian official policy.

Members of the Board had various suggestions related to the planning of such an educational program. It was felt strongly that psychologists familiar with mass psychology should advise on the nature and extent of the program. In this connection, Dr. [illegible] Gerneth (Johns Hopkins University) was mentioned. A [illegible] "Television [illegible]

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Mars", (a study in the psychology of panic, written about the famous Orson Welles radio broadcast in 1938) and has since performed advanced laboratory studies in the field of perception. The names of Don Marquis (University of Michigan) and Leo Rosten were mentioned as possibly suitable as consultant psychologists. Also, someone familiar with mass communication techniques, perhaps an advertising expert, would be helpful. Arthur Godfrey was mentioned as possibly a valuable channel of communication reaching a mass audience of certain levels. Dr. Berliner suggested the U. S. Navy (ONR) Special Devices Center, Sands Point, L. I., as a potentially valuable organization to assist in such an educational program. The teaching techniques used by this agency for aircraft identification during the past war was cited as an example of a similar educational task. The Jam Handy Co. which made World War II training films (motion pictures and slide strips) was also suggested, as well as Walt Disney, Inc. animated cartoons. Dr. Hynek suggested that the amateur astronomers in the U. S. might be a potential source of enthusiastic talent "to spread the gospel". It was believed that business clubs, high schools, colleges, and television stations would all be pleased to cooperate in the showing of documentary type motion pictures if prepared in an interesting manner. The use of lantern cases showing first the "mystery" and then the "explanation" would be forceful.

To plan and execute such a program, the Panel believed was no mean task. The current investigatory group at ATIC would, of necessity, have to be closely integrated for support with respect to not only the

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would be the photographing of "pillow balloons" at different distances under similar weather conditions at the site.

The help of one or two psychologists and writers and a subcontractor to produce training films would be necessary in addition. The Panel considered that ATIC's efforts, temporarily expanded as necessary, could be most useful in implementing any action taken as a result of its recommendations. Experience and records of ATIC would be of value in both the public educational and service training program envisaged. Dr. Robertson at least was of the opinion that after public guilt had lessened and the service organizations, such as ATIC, had been trained to sift out the more readily explained spurious sightings, there would still be a need for a very modernized ATIC station to cope with the residual of cases of possible scientific intelligence value. This section would concentrate on a vigorously following up (perhaps on the advice of qualified Air Force Scientific Advisory Board members) those cases which seemed to indicate the existence of unconventional enemy artifacts. Reports of such artifacts would be expected to arise mainly from known outposts in far-flung parts of the Free World, for

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The Panel was informed of the existence of such groups as [illegible] (Free American) and the Flying [illegible] Organization. Members of [illegible] believed that such organizations should be avoided because of their potentially

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great influence on mass thinking if widespread sightings should occur. The apparent irresponsibility and the possible use of such groups for subversive purposes should be kept in mind.

DECREASE IN NUMBER OF SIGHTINGS

The consensus of the Panel was, based upon the history of the subject, that the number of sightings could be reasonably expected to increase again this summer.

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TAB A

REPORT OF THE SCIENTIFIC PANEL
ON
UNIDENTIFIED FLYING OBJECTS

JAN 17 1953

1. Pursuant to the request of the Assistant Director for Scienti Intelligence, the undersigned Panel of Scientific Consultants has met t evaluate any possible threat to national security posed by Unidentified Flying Objects ("Flying Saucers"), and to make recommendations thereco The Panel has received the evidence as presented by cognizant intelligence agencies, primarily the Air Technical Intelligence Center, and he reviewed a selection of the best documented incidents.

2. As a result of its considerations, the Panel concludes

a. That the evidence presented on Unidentified Flying Objects shows no indication that these phenomena constitute a direct physical threat to national security.

We firmly believe that there is no evidence of reason which indicates phenomena which are attributable to foreign artifacts capable of hostile acts, and that there is no evidence that the phenomena indicate need for the revision of our en[illegible]

3. The Panel further concludes

a. That the continued emphasis on the reporting of these phenomena does, in the [illegible] result in a threat to the orderly functioning of the protective organs of the body politic.

We cite as examples the clogging of the [illegible] of communication by irrele reports, the danger of being led by continued false alarms to ignore re

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indications of hostile action, and the cultivation of a morbid national psychology in which skillful hostile propaganda could induce hysterical behavior and harmful distrust of duly constituted authority.

4. In order most effectively to strengthen the national facilities for the timely recognition and the appropriate handling of true indications of hostile action, and to minimize the [illegible] dangers alluded to above, the Panel recommends:

a. That the national security [illegible] take [illegible] steps to strip the Uncertified [illegible] of the [illegible] status they have been given and the aura of [illegible] they have [illegible] acquired;

b. That the national security [illegible] policies on intelligence, training, and public [illegible] designed to prepare the material defenses and the morale [illegible] to recognize most promptly and to react most [illegible] to the indications of hostile intent or action.

We suggest that these aims may be achieved by an integrated program designed to reassure the public of the [illegible] of attack or [illegible] for [illegible] the [illegible], to train [illegible] false information quickly and effectively [illegible] to strengthen [illegible] channels for the [illegible] of [illegible] perspective [illegible] of hostile [illegible]

/s/ [illegible]
Chairman [illegible]

/s/ [illegible]
University [illegible]

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TAB B

SCIENTIFIC ADVISORY PANEL ON

UNIDENTIFIED FLYING OBJECTS

14 - 17 January 1953

EVIDENCE PRESENTED

1. Seventy-five case histories of sightings 1951 - 1952 (selected by ATIC as those best documented).

2. ATIC Status and Progress Reports of Project GRUDGE and Project BLUE BOOK (code names for ATIC study of subject).

3. Progress Reports of Project STORK (code name for Battelle Memorial Institute contract work supporting ATIC).

4. Summary Report of Sightings at Holloman Air Force Base, New Mexico.

5. Report of USAF Research Center, Cambridge, Mass., Investigation of "Green Fireball" Phenomena (Project TWINKLE).

6. Outline of Investigation of U.F.O.'s Proposed by Kirtland Air Force Base (Project POUNCE).

7. Motion Picture Films of sightings at Tremonton, Utah, 2 July 1952 and Great Falls, Montana, August 1950.

8. Summary Report of 89 selected cases of sightings of various categories (Formations, Blinking Lights, Hovering, etc.).

9. Draft of manual: "How to Make a FLYOBRPT", prepared at ATIC.

10. Chart Showing Plot of Geographic Location of Unexplained Sightings in the United States during 1952.

11. Chart Showing Balloon Launching Sites in the United States.

12. Charts Showing Selected Actual Balloon Flight Paths and Relation to Reported Sightings.

13. Charts Showing Frequency of Reports of Sightings, 1947 - 1952.

14. Charts Showing Categories of Explanations of Sightings.

15. Radar-Track Temperatures of Polyethylene Film Balloons [illegible] Sunlight Due to High Reflectivity.

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16. Motion pic[illegible] of [illegible]

17. Intelligence Reports Relating to U.S.S.R. Interc[illegible]

18. Samples of Official USAF Reporting Forms and Co[illegible] Air Force, Army and Navy Orders Relating to Subject.

19. Sample Polyethylene "Pillow" Balloon (54 inches sq[illegible])

20. "Variations in Radar Coverage", JANP [illegible] (Manual [illegible] operating characteristics of Service radar).

21. Miscellaneous official letters and foreign [illegible] dealing with subject.

22. Copies of popular published works dealing with subject (articles in periodicals, newspaper clippings and books).

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TAB C

SCIENTIFIC ADVISORY PANEL ON

UNIDENTIFIED FLYING OBJECTS

14 - 17 January 1953

MEMBERS	ORGANIZATION	FIELD OF COMPETENCY
Dr. H. P. Robertson (Chairman)	California Institute of Technology	Physics, weapons systems
Dr. Luis W. Alvarez	University of California	Physics, radar
Dr. Lloyd V. Berkner	Associated Universities, Inc.	Geophysics
Dr. Samuel Goudsmit	Brookhaven National Laboratories	Atomic structure, statistical problems
Dr. Thornton Page	Office of Research Operations, Johns Hopkins University	Astronomy, Astrophysics

ASSOCIATE MEMBERS

Dr. J. Allen Hynek	Ohio State University	Astronomy
Mr. Frederick C. Durant	Arthur D. Little, Inc.	Rockets, guided missiles

INTERVIEWERS

Brig. Gen. William M. Garland	Commanding General, ATIC	Scientific and technical intelligence
Dr. H. Marshall Chadwell	Assistant Director, O/SI, CIA	Scientific and technical intelligence
Mr. Ralph L. Clark	Deputy Assistant Director, O/SI, CIA	Scientific and technical intelligence

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INTERVIEWEES (cont'd)	ORGANIZATION	[illegible]
Mr. Philip G. Strong	Chief, Operations Staff, D/SI, CIA	Scientific and technical intelligence
Mr. Stephen T. Feasbury	Acting Chief, Special Study Group, D/I USAF	Scientific and technical intelligence
Capt. Edward J. Koppolt, USAF	Chief, Aerial Photography Branch, [illegible], USAF	[illegible]
Mr. J. Dewey Forrest, Jr.	The [illegible] Corporation	[illegible]
Lt. R. S. Neaves, USN	USN Photo Interpretation Laboratory, Anacostia	[illegible]
Mr. Harry Wa[illegible]	USN Photo Interpretation Laboratory, Anacostia	[illegible]

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