

1. The following cases were reported (as have been others; similar cases have been reported) in the past of sound data in the great majority of cases first where, also, in the lack of other following the principles of the present and present facilities of the AFSS section concerning the following circumstances of significant sightings discussed in detail in the following:

Bellevue, Ohio (2 August 1952); Farmington, Utah (2 July 1952);
Saint Paul, Montana (15 August 1950); Rock, Montana (1 September 1952);
Washington, D. C. area (29 July 1952); and Kansas A.F. area,
Ogden (5 August 1952), Ford River, Michigan (29 July 1952); and
Bouquet Lake, Maine (13 October 1952).

After review and discussion of these cases (and about 35 others, in some detail), the Panel concluded that reasonable explanations could be suggested for most sightings and fly detection and collection. It would be included (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 brevity of the witness' express themselves clearly (sometimes), the conclusive explanation 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 result in a training and educational program (see below). The writings of Charles Fort were referenced to show

...the following were proposed (as have been others; further
...the lack of sound data in the great majority
...the lack of speedy follow-up and preliminary
...the limited facilities of the MIB section concerning
...the lack of adequate facilities of significant sightings discussed in detail
...the following:

Bellevue, Ohio (2 August 1952); Farmington, Utah (2 July 1952);
Leah Valley, Montana (13 August 1950); Rock, Montana (1 September
1952); Washington, D. C. area (29 July 1952); and Forest A. F. W.,
Casper (5 August 1952); Ford River, Michigan (29 July 1952); and
Berkley Lake, Maine (23 October 1952).

After review and discussion of these cases (and about 75 others
in some detail), the Panel concluded that reasonable explanations
could be suggested for most sightings and fly detection and collection
work 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
familiarity of the witnesses, expressions themselves clearly (some-
times) 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,
and such action would be 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 electronic 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, aptitude, aerodynamics, ornithology and military air operations would extend the ability of the Panel to recognize many new categories of little-known phenomena.

OPINION OF PANEL

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. Both Robertson and Altmeyer 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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It was interesting that in at least two cases, notwithstanding that the object sighted was categorized by Reference and thought as probably "See Lighters", to date unexplained but not dangerous, they were not happy thus to dismiss the sightings by calling them noise. It was their feeling that these phenomena are not beyond the domain of present knowledge of physical sciences; however.

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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 radio tracks) was probably caused by public pressure. The result being, 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 wandering 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 decapsulation made itself apparent. Comments on a possible educational program are enumerated below.

[REDACTED]

It was the opinion of Mr. Robertson that the "concrete" problem
is a very different in nature from the detection and
destruction of German V-1 and V-2 guided missiles prior to their
operation, was in World War II. In this 1943-1944 intelligence
operation (PROBATION), there was excellent intelligence and by June
1944 there was material evidence of the existence of "phantoms"
obtained from cracked V-1s in Sweden. This evidence gave the
investigating team a basis upon which to operate. The absence of any
"phantoms" resulting from unexplained U.F.O. sightings leads a "wild-
card" nature to the MIB problem. The results of their investiga-
tion, 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 con-
ventional aircraft or guided missiles; under such conditions "phantoms"
would be available almost at once.

REMARKS ON THE PROBABILITIES

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. Pennet, in his presentation, showed how he had elim-
inated each of the known and probable causes of sightings, leaving him
"left-handed" as the only one remaining in many cases. Pennet's
background as an aeronautical engineer and technical intelligence

[REDACTED]

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...Project Office, [REDACTED] for 15 months) could not be
... However, the Panel could not accept any of the cases
... by him because they were say, uncollected reports.

Extraterrestrial explanations of the sightings were suggested in some
cases and in others the time of sighting was so short as to cause
... of visual impressions. It was noted by Dr. Coulant and
... that extraterrestrial artifacts, if they did exist, are no
... for alarm; rather, they are in the realm of natural phenomena
... subject to scientific study, just as comets were at the time
... 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 them)
... 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 preposterous.

THE CASE, PANEL, SUMMARY

This case was considered significant because of the excellent
... evidence in the form of Holtekern motion picture films
(about 1600 frames). The Panel studied these films, the case history,
... interpretation, and received a briefing by representatives of
... the U. S. Photo Interpretation Laboratory on their analysis of the
... films. This team had organized (at Air Force request) approximately

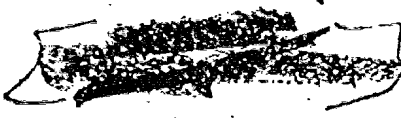
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... and nature of professional and sub-professional time in the
production of each piece of individual frames of the film, show-
ing apparent and relative motion of objects and variation in their
light intensity. It was the opinion of the P.I.L. representatives
that the objects sighted were not birds, balloons or aircraft,
and such reflections because there was no blinding glare passing
through 60° of arc and were, in effect, "solid mirrors". Flares of
motion and variation in light intensity of the objects were dis-
played. While the Panel Members were impressed by the evident
enthusiasm, industry and intent of effort of the P.I.L. team, they
could not accept the conclusions reached. Some of the reasons for
this were as follows:

- a. A semi-spherical object can readily produce a reflection
of sunlight without "blinding" through 60° of arc travel.
 - b. Although no data was available on the "albedo" of birds or
polyethylene balloons in bright sunlight, the apparent
motions, sizes and brightnesses of the objects were
considered strongly to suggest birds, particularly after
the Panel viewed a short film showing high reflectivity
of seagulls in bright sunlight.
 - c. P.I.L. description of the objects sighted as "circular,
black-white" in color would be expected in cases of
specular reflections of sunlight from convex surfaces where
the incidence of the reflection would obscure other portions
of the object.
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1. The objects in the Great Falls case were believed to have probably been aircraft, and the bright lights such reflections.
 2. There was no valid reason for the attempt to isolate the objects in the formation sighting to those in the Great Falls sighting. This may have been due to misunderstanding in field directive. The objects in the Great Falls sighting are strongly suspected of being reflections of aircraft known to have been in the area.
 3. The intensity change in the formation lights was too great for acceptance of the F.I.I. hypothesis that the apparent varied and changing intensity of the lights indicated extremely high speed in small orbital paths.
 4. Apparent lack of guidance of investigators by those familiar with U.F.O. reports and explanations.
 5. 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 object appeared much less bright.
 6. Method of obtaining data of light intensity appeared faulty because of unreliability of equipment and questionable assumptions in making averages of readings.
 7. No data had been obtained on the sensitivity of instruments used to light of various intensities using the same camera type at the same lens openings.
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THE PROBLEMS OF THE

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

- a. Misidentification of actual enemy activities by defense personnel;
- b. Corroborating of enemy reporting channels with "false" information (false & signal radio analogy - Barman);
- c. Subjectivity of pilots to mass hysteria and greater vulnerability to possible enemy psychological warfare.

Although not the concern of O/SI, the first two of these problems may seriously affect the Air Defense Intelligence system, and should be studied by experts, possibly under ASD. If U.S.O.'s become discredited in connection to the "flying saucer" scare, or if reporting channels are saturated with false and poorly documented reports, our capability of detecting hostile activity will be reduced.

Dr. Togo noted that more emphasis concerning or filtering of reported sightings as to how the source is verified, and that this can best be accomplished by an educational program.

ANALYSIS OF REPORTS OF UNIDENTIFIED AIRCRAFT

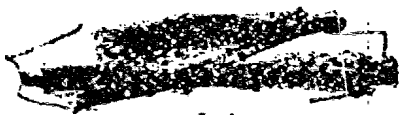
The map prepared by ASD showing geographic locations of officially reported unidentified sightings (1952 only) was examined by the Panel. This map showed clusters in certain strategic areas such as Los Angeles. This might be explained on the basis of 24-hour watchful guard and


On the other hand, there had been no sightings in the vicinity of sensitive military installations while there were considerably 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 observations. It was noted, however, that all terrestrial observations were to be observed as it would be likely that they would be seen first near foreign areas rather than central U. S.

INTERPRETATION OF OBSERVATIONS

The Panel was of the opinion that the present ATIS program to place 100 imaginative 55 mm. stereo cameras in the hands of various airport control tower operators would probably produce little reliable data pointed 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 prevalence of these cameras was partly the result of public pressure in July 1952. With the poor results of the year-long Project ATIS program of 24-hour instrumentation watch (two frames of film showing nothing distinguishable), a widespread program of skywatching would not be expected to yield much direct data of value.

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


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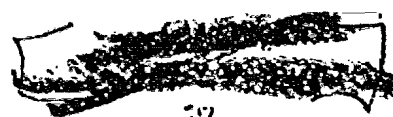


...for many years under circumstances
 ...in order to carry out certain observing programs as
 ...observing programs of the various locations listed below.
 ...the attention of these astronomers is largely directed
 ...of identified rather than unidentified objects, the case of any
 ...unidentified object is known to ^{the Panel} Dr. Fago or Dr. Lynch. Such
 ...would most certainly be reported if found on patrol planes.

...was asked where an astronomer refused to interrupt his
 ...in order to photograph an alleged sighting in a different
 ...of the city. This led Dr. Lynch to say that, if a program of
 ...could be an adjunct of planned astronomical programs, little
 ...would be involved and that the trained astronomical personnel
 ...photographing sighting of an unidentified object.

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

- a. Harvard University, Cambridge and Mexico (meteor patrol),
 Wiggles.
- b. Yerkes Observatory, University of Chicago and Fort Davis, Texas
 (several programs)-Minnel (comets), Kuiper (asteroids),
 Morgan (wide angle camera).
- c. University of Alaska, Fairbanks (comets)-Elvey
- d. Dominion Observatory, Ottawa (meteors)-McLennan
- e. Lick Observatory, California (sky map)-Minkowski
- f. Hale Observatory, California (sky map)-Shomo



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It was agreed by the Panel that no government-sponsored program of cryptanalysis which might be worthwhile at the present time, and that the encouragement of amateur enthusiasts to undertake such a program might have the adverse effect of over-emphasizing "flying saucer" stories in the public mind. However, the issue of radiofrequency channels for receiving particular radar echoes would serve several purposes, including the better understanding of radar interference as well as identification of U.S.A. 13.

THE PROBLEM OF SIGNAL IDENTIFICATION

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.S.C. reports. This problem was underlined by information received indicating JCS concern in solving this problem of signal identification before service use of very high-speed aircraft or guided missiles (1955-1956). ^{Dr. Robert M. Taylor} Dr. Taylor believed that one answer to this problem was the use of a "duplex filter" in the receiving circuit. ^{Another} [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 1000-20,000 mph.) 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 mutual interference with another station, the track would now show itself at a different distance

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that the nature of the camera, as it still appeared at all. Dr. Aronson
with a technical solution was simpler and would cost much less than
"super-sensors".

THE 1950-1951 BIRDWATCHING

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 Angeles Bird Watchers Association" from
August 1950 to January 1951, when cosmic ray coincidence counters behaved
strangely. Original diagrams and records were available for the latter, and
Dr. Aronson 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 implication that radioactive effects were correlated with
unidentified flying objects in these two cases was, therefore, rejected
by the Panel.

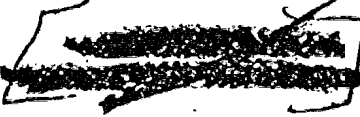
DEFINITION PROGRAM

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 "defining".

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

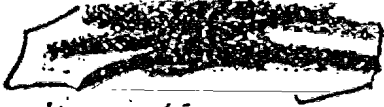
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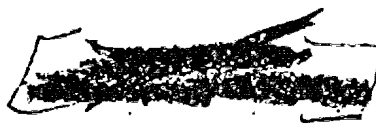
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Persons in such situations then enlisted, personnel to command and research personnel. Relative emphasis and degree of explanation of different programs would correspond to the categories of duty (e.g., radio operators; pilots; control tower operators;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

The "defeating" plan 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 articles. Parts of such education would be actual case histories which had been passing at first but later explained. As in the case of conjuring tricks, there is much local satisfaction 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 Panel noted that the general absence of Russian propaganda based on a subject with so many obvious possibilities for exploitation might indicate a possible Russian civil war policy.

Members of the Panel 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. Havelly Carrsall (Yale University) was suggested. Carrsall authored "Evolution from


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Dr. [redacted] in study in the psychology of panic, written about the famous
Dr. [redacted] radio broadcast in 1939) and has since performed advanced
laboratory studies in the field of perception. The names of Ben Margolin
(University of Michigan) and Leo Rosten were mentioned as possibly
available as consultant psychologists. Also, someone familiar with
radio 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. [redacted]
suggested the U. S. Navy (ONR) Special Devices Center, Santa Point, I. I.,
as a potentially valuable organization to assist in such an educational
program. The training techniques used by this agency for aircraft
identification during the past are given as an example of a similar
educational task. [The Jan Henry Co. which made World War II training
films (motion picture and slide strips) was also suggested, as well as
Walt Disney, Inc. animated cartoons. Dr. [redacted] suggested that the
major employers in the U. S. might be a potential source of educa-
tional talent "to spread the gospel". It was believed that business
clubs, high schools, colleges, and television stations would all be
planned to cooperate in the showing of documentary type motion pictures
if prepared in an interesting manner. The use of true cases showing
first the "mystery" and then the "explanation" would be forceful.

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


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... of "gutter intelligence" at different distances
... the weather conditions at the time.

The kind of one to two page reports and letters and a memorandum
... would be necessary in addition. The Panel
... expanded as necessary.
... in implementing any action taken as a result of
... recommendations. Experience and records in AFSS would be of value
in both the public educational and service training program envisaged.

[The Panel] at least, was of the opinion that after public gallantry
... and the service organizations, such as AFSS, had been trained
to alert and the more readily explained obvious sightings, there would
still be a need for a very modest-sized AFSS section to cope with the
... of some of possible scientific intelligence value. This
... should concentrate on energetically following up (perhaps on
the advice of qualified Air Force Scientific Advisory Board members)
... which seemed to indicate the evidence of unconventional?
... artifacts. Reports of such artifacts would be expected to
... mainly from Western outposts in far closer proximity to the
... than certain than Subhook, Panel!

INTERNAL SECURITY - AIR FORCE

The Panel took cognizance of the existence of such groups as the
"Panther Flying Saucer Investigators" (Los Angeles) and the "Aerial
Phenomena Research Organization" (Albuquerque). It was believed that
such organizations should be watched because of their potentially

[REDACTED]



1. The first group of people, the "old guard", are those who have been in the business for a long time and who are used to the way things have always been done. They are often resistant to change and may not see the need for innovation.

2. *Phylogenetic relationships*—The phylogenetic relationships among the 10 species of *Phragmites* were determined using the parsimony method of Farris (1993) with the computer program PAUP (Farris 1993). The parsimony method was chosen because it is the most commonly used method for determining phylogenetic relationships (Mant 1993). The parsimony method was used to determine the most parsimonious tree (Mant 1993). The parsimony method was used to determine the most parsimonious tree (Mant 1993).

On 12/12/68, the following information was received from the
New York City Police Department, New York City, New York, dated
12/12/68, and is being furnished to you for your information:

F. G. DURANT III

OFFICE OF THE DIRECTOR
OF THE NATIONAL ACADEMY OF SCIENCES
WASHINGTON, D. C.

Mr. Jackson	and Mr. [illegible] [illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]
Mr. [illegible]	[illegible]	[illegible]

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RESEARCH

1. What is the main purpose of the document?
 2. What are the key findings of the study?
 3. What are the implications of the findings?
 4. What are the limitations of the study?
 5. What are the conclusions of the study?

1. The above information was obtained from the following sources:

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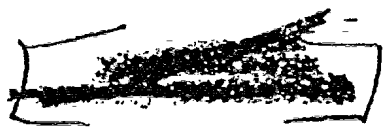
Wang, Zhenyuan, et al.

DATA MANAGEMENT

11-17-2009

Abstract—The purpose of this study was to determine if there were differences in the prevalence of musculoskeletal disorders between two groups of nurses working in different units of a tertiary care hospital. The prevalence of musculoskeletal disorders was determined by means of a self-administered questionnaire among 100 nurses from each unit. The prevalence of musculoskeletal disorders was higher among nurses working in the intensive care unit than among those working in the medical-surgical unit. The prevalence of musculoskeletal disorders was higher among nurses working in the intensive care unit than among those working in the medical-surgical unit.

1. Summary and chronological history of sightings 1951 - 1952 (included by [redacted] Three List Incorporated).
2. Summary of Progress Reports of Project GEMINI and Project [redacted] (also known as LHO study of subjects).
3. Progress Reports of Project GEMINI / [redacted] from San Raffaele Hospital [redacted] in [redacted] contract with supporting AFM).
4. Summary Report of Sightings at Williams Air Force Base, New Mexico.
5. Report of USAF Research Center, Cambridge, Mass., Investigation of [redacted] in Stratospheric Balloons (Project THUNDER).
6. History of Investigation of U.F.O.'s Reported by National Air Force [redacted] (Project THUNDER).
7. Report on Various Films and Sightings at Alamogordo, Wash; 2 July 1951
[redacted] [redacted] August 1950.
8. Summary Report of 16 selected cases of sightings of various categories (Observations, Chasing Lights, Hovering, etc.).
9. List of materials "How to Take a PHOTOGRAPH", prepared at AFM.
10. Chart Showing Plot of Geographic Location of Unexplained Sightings in the United States during 1952.
11. Chart Showing Balloon Launching Areas in the United States.
12. Chart Showing Selected Army & Balloon Flight Paths and Relation to Reported Sightings.
13. Chart Showing Frequency of Reports of Sightings, 1946 - 1952.
14. Chart Showing Categories of Explanations of Sightings.
15. Photostatic Reproductions of Polyethylene Film Balloons in Bright [redacted] [redacted] [redacted]


TAB 1

16. Known picture of vessel in night lighting showing high reflectivity.
17. Two copies of Report dated 7 to U.S.S. Interest in U. S. Sightings.
18. Copies of Official WHM Reporting Forms and Copies of Postcard
to Bureau, Army and Navy Groups Relating to Subject.
19. Sample Polyethylene "Fibrous" Material (54 inches square).
20. Photographs of Radar Coverage, JMW 101 (Visual illustrating unusual
spreading characteristics of Service radar).
21. Miscellaneous official letters and foreign intelligence reports
dealing with subject.
22. Copies of popular published works dealing with subject (articles
in magazines, newspaper clippings and books).