

OPERATION BLUE FLY RESEARCH PROJECT

Report to Congress

By

Clifford E. Stone

Director

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# Congress of the United States

## House of Representatives

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February 28, 1994

Mr. Clifford E. Stone  
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Dear Clifford:


Thanks for your letter and extensive report on the *Operation Blue Fly Research Project*. I appreciate you taking the time and effort to conduct this exhaustive research effort and share your views with me on this important matter.

As you are well aware, the House Government Operations Committee has taken an interest in this matter from the perspective you present in your paper. However, all of the intelligence agencies and their related counterparts throughout the government still claim, officially, that they have not kept the Congress in the dark on this matter. Congressional hearings may be held on this matter later this session.

Though I am not a member of the House Government Operations Committee or the House Intelligence Committee I will share your comments and report with my colleagues on these two panels. Rest assured, I will continue to keep your conclusions in mind while the Congressional panels review this matter.

Again, I appreciate you taking the time and effort to contact me. It is important that I be aware of the feelings and concerns of the people I serve in Congress. Your comments enable me to keep on top of the issues and I value your opinion.

Sincerely,

  
JOE SKEEN  
Member of Congress

JS:bd

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INDEX

Introduction

SECTION ONE

The U.S. Air Force's Real, Official Investigation of UFO's

SECTION TWO

Operation Blue Fly: Conceal From Both Public And Congress

SECTION THREE

UFO'S And The Soviet Connection

Conclusions

Recommendations

Suggested Readings

Organizations

## INTRODUCTION

By

Clifford E. Stone  
SFC, U.S. Army (Ret.)

For many years now the American Intelligence Community has been charged with the alleged cover up of UFO data and not releasing this information to the American Public or members of Congress. This should be considered as a serious charge; not because of an alleged cover up or keeping information from the American Public. The one factor that makes this charge so serious is the allegation of keeping information from members of Congress.

Congress serves as the watchdog of our way of life. While various types of information must be protected (classified) in the legitimate interest of National Security and kept from the American Public; we can never afford to accept Congress being left out. For this very reason executive sessions were created to protect classified information, while keeping Congress informed.

Over the years Congress has held many open hearings into the subject of UFO's, while at the same time there has

never been any mention of any executive sessions being held on the subject of UFO's. These hearings have always been based on the Project Blue Book files with no mention of any other agencies' involvement.

With the enactment of the PA/FOIA of 1974, documents were released alluding to more than a passive interest in UFO's by many government agencies other than just the U.S. Air Force. These documents were once classified and heavily censored at the time of their release. Also, there is strong indications the Congress was never made aware of the existence of these documents, their classified nature, or even the other agencies' interest in UFO's. Many of these documents go into the 1970's, 80's and 90's. They, also, tend to reflect a concern that these objects (UFO's) are something real and involve an advanced technology. If this is truly the case, it would totally rule out the first two conclusions of every Air Force investigation to date.

I am of the firm belief that Congress should hold a hearing on the involvement of various intelligence agencies concerning their interest in the UFO Phenomena. Not to determine if UFO's are interplanetary; but rather if information is being kept from Congress and should this be the case, what is its legality.

The intent of this report is not to provide members of Congress with "evidence" of interplanetary space craft; but

to provide documentation of the existence of an interest by various government agencies, while at the same time, these agencies were expressing that they had no interest in the subject matter. Also, this documentation clearly shows a high level of interest, often classified, with no indication that any member of Congress is being kept informed of these activities.

Once again, I wish to state that the intent of any hearing should not be the proving or disproving of the phenomena. The only desired purpose should be determining the exclusion of Congress by the various agencies of this type of information, and hence, ending once and for all the allegations of cover up.

Congress should be in a firm position to issue a statement that they, as a governing body, are well aware of every detail covered in this report and it is their firm belief that no cover up exist. If not, then Congress owes it to the American Public, which they serve, to call for a Congressional Hearing.

Congress must protect the trust placed in it by the American People. The only way this can be done is by Congress being well informed of the activities of other governmental agencies.

While it is understood that some information must be kept

out of the public domain to insure legitimate National Security interest; no justification must ever be accepted for the exclusion of Congress; the watchdog of our way of life and our democracy.

CLIFFORD E. STONE

SECTION 1

THE U.S. AIR FORCE'S REAL, OFFICIAL  
INVESTIGATION OF UFO'S



THE U.S. AIR FORCE'S REAL, OFFICIAL  
INVESTIGATION OF UFO'S

By

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"Moreover, reports of unidentified flying objects which could affect national security are made in accordance with JANAP 146 or Air Force Manuel 55-11, and are NOT part of the Blue Book system. The Air Force experience therefore confirms the IMPRESSION of the University of Colorado researchers 'that the defense function could be performed within the framework established for intelligence and surveillance operations without the continuance of a special unit such as Project Blue Book.'"

The above quote is taken directly from an official U.S. Air Force document, dated October 20, 1969, recommending the termination of Project Blue Book. Also this quote clearly points out several items of interest concerning Project Blue Book. First, Blue Book was established to receive UFO reports from the public at large and act as a public relations unit. Blue Book was not to be involved with

those cases considered to be of vital intelligence interest. For those cases, involving vital intelligence concerns, another entity or reporting channel had already been established outside of the Blue Book reporting system. Secondly, the Air Force, unknown to the public, had in place another reporting channel for UFO reports which they wished to keep away from the public's view. The University of Colorado researchers made just such a recommendation not being aware of the existence of this other entity outside of Project Blue Book.

Later, in this article, I will identify this other entity and trace some of its history. However, for now, I would like to reflect upon some other interesting points made by this document.

"The termination of Project Blue Book would leave no official federal office to receive reports of UFOs. However, as already stated, reports of UFOs which could affect national security would continue to be handled through the standard Air Force procedures designed for this purpose."

Read the above quote again, which is from the Air Force document in question, very closely. Here it is made very clear that while the termination of Project Blue Book would give the impression that the U.S. Air Force was out of the UFO business by not have a clearing house, so to speak, for

submission of UFO reports from the public, it would carry on its investigation of those UFO cases it deemed to have vital intelligence interest, without fear of any questions from the media or public at large. All the U.S. Air Force had to do, should anyone ask questions, was to simply state that the U.S. Air Force ceased its investigation of UFOs on December 17, 1969 as a result of the University of Colorado Study recommendation. Since the existence of this other reporting system was unknown to the media and public it was not required, nor did the Air Force wish, to make its existence known.

To this very day the U.S. Air Force does not want the American Public to be made aware of any such UFO program currently in existence within its intelligence branch. Yet, I assure you that such a unit does, in fact, exist and one of its many duties is the gathering of information on UFO cases that it deems to have vital intelligence interest. This same unit is charged with the responsibility of forwarding the information they gather on UFOs to other interested agencies.

There have been many explanations, both pro and con, given for this document, known as the "Bolender Memo". The pro has been that it "proves" the U.S. Air Force had, and still has, a highly classified UFO investigation program. The con is that Brigadier General (BG) Bolender was pressed for time and had to say something. Not wanting to made the

powers that be worry, that should a situation arise concerning UFOs and national security, we would be ill equipped to deal with such a situation, he chose to state we already have that base covered, not really knowing what he was talking about. Actually BG Bolender knew quite well what he was talking about. BG Bolender knew that Project Blue Book did not investigate the really good UFO cases reported to the U.S Air Force. BG Bolender knew of that "special unit" located at Fort Belvoir, Virginia.

Under Air Defense Command Regulation 24-4, dated January 3, 1953, the 4602d Air Intelligence Service Squadron (AISS) was created. On August 26, 1953 this "special unit" was charged with the official investigation of UFOs under Air Force Regulation 200-2. All UFO reports were to go through the 4602d AISS prior to any transmission to Project Blue Book at Wright-Patterson Air Force Base, Ohio.

AFR 200-2, dated August 12, 1954, stated, "The Air Defense Command has a direct interest in the facts pertaining to UFOB's (UFO reports) reported within the ZI (Zone of the Interior) and has, in the 4602d Air Intelligence Service Squadron (AISS) the capability to investigate these reports. The 4602d AISS is composed of specialists trained for field collection and investigation of matters of air intelligence interest which occur within the ZI. This squadron is highly mobile and depolyed throughout the ZI."

Here we have an Air Force Regulation making it clear that the Air Defense Command had a direct interest in UFOs, as well as the unit best suited to do the investigations. The 4602d AISS. Also, indicating that another agency, outside of Project Blue Book, was involved with UFO investigations.

We are aware that every Air Force Base was required to appoint a Project Blue Book Officer, mostly as an additional duty, to handle UFO reports that came to the attention of the base. However, these officers were not permitted to report cases directly to Project Blue Book at Wright-Patterson Air Force Base. They first had to bring the cases to the attention of, you guessed it, the 4602d AISS. Nor were they to conduct any investigation beyond a preliminary without a direct request to do so from the 4602d AISS.

AFR 200-2 stated, "All Air Force activities are authorized to conduct such preliminary investigation as may be required for reporting purposes; however, investigations should not be carried beyond this point, unless such action is requested by the 4602d AISS."

According to AFR 200-2, "The Air Technical Intelligence Center (ATIC) will analyze and evaluate: All information and evidence within the ZI after the Air Defense Command has exhausted all efforts to identify the UFOB; and all information and evidence collected in overseas areas."

I have several problems with the above quote from AFR 200-2. First, we now know, thanks to the Freedom of Information Act (FOIA), that many of the cases that should have been in the Project Blue Book files were not there. However, they did show up in the Director of Air Intelligence files with a clear indication that they had, in fact, gone through the 4602d AISS. Secondly, many of the overseas cases, which should have been in the Project Blue Book files were also missing. However, many of these have also turned up in the Director of Air Intelligence files, once again, indicating they, too, had gone through the 4602d AISS. Third, none of these missing files, that were located in the Office of the Director of Air Intelligence, gave any indication that they had been explained away by the 4602d AISS. Even if they had been explained, there should have been files on these cases in the Project Blue Book files.

In October, 1989, the Office of the Director of Air Intelligence released several files to me. These files should have been in the Blue Book files also, but they were not. What I found interesting about these files was that all technical information gathered by the aircraft that were involved was forwarded to the National Security Agency (NSA) by the 4602d AISS and not Project Blue Book. Of course, most of the aircraft involved in these cases were RB-47's and the National Security Agency would be the

agency best suited to evaluate the electronic data gathered. However, the NSA will not release any information on these cases, even though they occurred in the mid-1950's.

Over the years, as a result of Air Force reorganization, the 4602d AISS has been known by many names. In July, 1957 the 4602d AISS became the 1006th AISS. In April, 1960 it became known as the 1127th USAF Field Activities Group. Later, it would become known by such names as the 7602d Field Activities Group, the U.S. Air Force Special Activities Center, and today exists as the 696th Air Intelligence Group located at Fort Belvoir, Virginia.

Also, over the years, this unit maintained three of its peacetime functions. These were: 1. Unidentified Flying Objects (UFOs), to investigate reliably reported UFOs within the United States. From documents released under the Freedom of Information Act, it would, also, appear they collected information on UFOs from overseas and forwarded this information to, "interested agencies". 2. Project Moon Dust, to recover non-U.S. objects or objects of unknown origin and debris of such objects that had survived re-entry from space to earth. Of course, some very earthly space objects are initially reported as UFO's or objects of unknown origin until closer examination is made. 3. Operation Blue Fly, to expeditiously retrieve MOON DUST and other items of vital intelligence interest. This included

reports of allegedly downed UFOs, both within the United States and abroad.

These three peacetime missions all involve, "a potential for employment of qualified field intelligence personnel on a quick reaction basis to recover or perform field exploitation of unidentified flying objects, or known Soviet/Bloc aerospace vehicles, weapons systems, and/or residual components of such equipment." These missions were carried out by 3 man intelligence teams. However, they could draw upon the resources of the closest military installation(s) in the area of operations both overseas and here in the United States.

We can ascertain from newspaper accounts and documents that have been released under FOIA requests that our government did, in fact, recover objects of unknown origin both overseas and in the United States. We can, also, ascertain that the military was involved in some aspects with these recoveries.

In December 1965, the military recovered an object of unknown origin in Kecksburg, PA. In August 1967, we recovered an object of unknown origin described as a satellite, in Sudan. In July 1968, we recovered an object of unknown origin in Nepal. This object was described as being in four pieces with one of the pieces said to be of a



nose cone shape.

What do all these cases have in common? Our government will not answer any questions concerning these cases. Neither will they identify the origin of the objects nor what these objects were. Surely, at this time in our world's history, there can be no useful purpose in keeping this information classified.

Debunkers will state that if these objects are anything, they are Soviet spacecraft which we recovered and do not want the Soviets to know they came into our possession. If this were truly the case, why have the Soviets not filed an official protest with the United Nations? The Soviets are just as capable to track their space objects as we are. They would surely be aware of where their space objects impacted on earth, should they survive re-entry. Also, we are a party to various space treaties and UN resolutions dealing with space objects which have returned to earth. Should we recover any object, belonging to another country, and not return it, we would be in violation of international law. We might look very closely at any object or objects we might recover for technical intelligence purposes. However, in the end, we would return them to the launch authority or country. In these cases mentioned above this has not happened.

In December 1989, I decided to gather as much information

as possible on the unit at Fort Belvoir, VA, Project Moon Dust, and Operation Blue Fly. The responses I received from the Air Force proved to be quiet interesting in that they considered the release of any information to be so sensitive that in their response to me of June 5, 1991 they wrote: "We can neither confirm nor deny the existence or nonexistence of records responsive to your request regarding 'Projects or Operations known as BLUE FLY, MOON DUST, AFCIN SOP, and ICGL #4,' as any other response could reveal classified information concerning military plans, weapons, or operations under section 1.3(a)(1) of Executive Order 12356, 'National Security Information.' Therefore, pursuant to Title 5, United States Code (USC), Section 552(b)(1), and Air Force Regulation 12-30, paragraph 10a, your request is denied." This statement indicated that these programs and regulations were current and still active.

Of course, I appealed this decision. All efforts, on my own, to gather information on the UFO History of the 4602d AISS, Project Moon Dust, and Operation Blue Fly have met with the Air Force ending all their replies with, "Therefore, no further action is required and this matter is considered closed." Considered closed by who? I assure you, this matter was not, by no means, considered closed by me.

With the Air Force being unwilling to release any

information, I asked for the help of the office of Senator Bingaman. At first the Senator's office was hesitant to become involved in a nutty subject such as UFO cover-ups. However, after looking at my documentation and listening to me explain that I was looking for the truth concerning these missions and the 4602d AISS's involvement with them, and not necessarily UFOs or spacecraft from some other planet, the Senator's Office made its first inquiry on my behalf.

In November 1992, the Air Force responded to the Senator's first inquiry. The Air Force stated, "There is no agency nor has there ever been, at Fort Belvoir, Virginia, which would deal with UFOs or have any information about the incident at Roswell. In addition, there is no Project Moon Dust or Operation Blue Fly. These mission have never existed."

Armed with this response and feeling that the Air Force had chosen to lie to a United States Senator in order to cover up the existence of this "agency", Project Moon Dust, and Operation Blue Fly; I rebuttaled their reply.

In a letter, dated April 14, 1993, the Air Force responded to my rebuttal of their earlier reply stating, "Upon further review of the case (which was aided by the several attachments to Mr. Stone's letter), we wish to amend the statements contained in the previous response to your

inquiry." Also, the Air Force attempted to down play the 4602d AISS's involvement with UFOs by not naming the unit and stating, "As the occasion never arose to use these air defense teams, the mission was assigned to Headquarters, United States Air Force in 1957..." Furthermore, the Air Force wanted to impress, in this letter, that it was Headquarters, United States Air Force, in 1957, that was expanded to include the investigations of UFOs, Project Moon Dust, and Operation Blue Fly. However, the recorded history clearly shows this, not to be the case.

Among the documents I send to the Air Force to educate them were 2 documents dealing with UFO sightings in the Soviet Union. These documents were dated in the late 1980's.

This is what the Air Force had to say about these two documents; "Since the Air Force discontinued its investigative interest in UFOs in 1969, reports of UFO sightings are now recorded and forwarded only if there is a prior interest in the source of the UFO sighting. For example, Enclosures 3 and 4 of Mr. Stone's letter pertain to debriefings of two Soviet sources who were being interviewed for possible military information of interest. Their recounts of UFO sightings, even though they had occurred many years earlier, were included in the report for historical interest and were incidental to the main purpose of the report."

Enclosure 3, dated November 25, 1987, entitled, " UFO Siting (Sighting) in Shadrinsk" deals with UFO sightings which took place in 1974. Enclosure 4, dated December 7, 1989, entitled, "Soviet Aircrew Sightings of Unexplained Phenomena" deals with UFO sightings which took place in 1984 and later.

These two reports deal directly with UFO sightings in the USSR. They make no mention of any missile testing, technical information on a possible new Soviet MIG, or any type of military information (outside of the UFO sightings themselves) that I can see. My question is; what was the main purpose of these two reports to which UFOs were allegedly "incidental"?

There exist many reasons for the Air Force to have a continued interest in UFOs. Among these are, to avoid technological surprise; searching out solutions to certain unanswered questions of atmospheric physics and radar propagation through the atmosphere which are intertwined with UFO reports; and the possible military exploitation of reported UFOs in given situations. All of these are of intelligence interest and concerns.

While it does not require a believe in interplanetary vistors to understand why the Air Force would have an interest in UFOs for the reasons given above, it does explain why much of the information might still be highly

classified. However, this does not explain why the Air Force would deny any interest in UFOs, while, at the same time, collecting information from around the world, on UFO reports going into the 1990's.

The United States Air Force has conducted, and continues to conduct, a highly classified UFO investigations program. Under this program, the Air Force has actively taken part in the recovery of objects of "unknown origin" and has chosen to remain silent about these recoveries. The special unit for these investigations and recoveries is located at Fort Belvoir, Virginia.

The answers as to what our government really knows about UFOs and if they are of interplanetary origin, can only be answered by full disclosure of the records concerning these investigations by this special unit located at Fort Belvoir, Virginia. Something the United States Air Force is not, yet, ready or willing to do.

AFRDC	Appr	<i>[Signature]</i>	AFUC	Coord	
SAFUI	Coord	<i>[Signature]</i>	SAFRD	Coord	<i>[Signature]</i>
SAFLL	Coord	<i>[Signature]</i>	SAFCS	Sig	
AFCCS	Appr	<i>[Signature]</i>			
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PROJECT: Unidentified Flying Objects (UFO) **BOLENDER MEMO** DATE: 20 OCT 1969

**SUMMARY**  
 For more than twenty years the Air Force has had the responsibility within the Department of Defense for the investigation of unidentified flying objects (UFOs) (Aitch 2). As stated in Project Blue Book, this investigative program has two objectives:

- a. To determine whether UFOs pose a threat to the security of the United States;
- b. To determine whether UFOs exhibit any unique scientific information or advanced technology which could contribute to scientific or technical research (Aitch 3)

Procedures for Project Blue Book reporting are defined in Air Force Regulation 80-17. This regulation requires the Commander of an Air Force base to provide a UFO investigative capability and for Air Force Systems Command to continue Project Blue Book (Aitch 4). In response to this regulation most Commanders have appointed a UFO investigating officer, usually as an additional duty. Project Blue Book has two officers, one WCO, and one civilian assigned on a full-time basis. In addition, [A. J.] Hynck served as a scientific consultant until 1 July 1969.

In 1966 the Air Force Office of Scientific Research contracted to have the University of Colorado conduct an independent scientific investigation of unidentified flying objects. This study, directed by Dr. Edward U. Condon and made available as a "Scientific Study of Unidentified Flying Objects," serves as a basis for evaluating the Air Force investigative effort (Aitch 5). After an extensive study of this report as well as the review of the report by a panel of the National Academy of Sciences, the studies, Project Blue Book operations and other inputs, the Office of Aerospace Research concluded, and we agree, that the continuation of Project Blue Book cannot be justified, either on the ground of national security or in the interest of science (Aitch 6).

The general conclusion of the Scientific Study of Unidentified Flying Objects is that "nothing has come from the study of UFOs in the past 21 years that has added to scientific knowledge." As to what the federal government should do with the UFO reports it receives from the general public, the authors add that they are "inclined to think that nothing should be done with them in the expectation that they are going to contribute to the advance of science." A panel of the National Academy of Sciences concurred in these views, and the Air Force has found no reason to question this

*obtained Jan. 1979 by Stanton Friedman from Robert Todd*

(80)

usion. For example, it has been the Air Force experience that although significant portion of the Air Force's environmental research program is aimed with natural phenomena that could be associated with unidentified flying objects (Atech 7), Project Blue Book reports have not added any useful to these research efforts (Atech 9). Thus, we concur with the University of Colorado recommendation "that only so much attention to the subject should be given as the Department of Defense deems to be necessary strictly from a scientific point of view."

As early as 1953, the Robertson Panel concluded "that the evidence presented on unidentified Flying Objects shows no indication that these phenomena constitute a direct physical threat to national security" (Atech 9). In spite of this finding, the Air Force continued to maintain a special reporting system. There is still, however, no evidence that Project Blue Book reports have served any intelligence function (Atech 8). Moreover, reports of unidentified flying objects which could threaten national security are made in accordance with JAMR 146 of Air Force Regulation 155-11, and are not part of the Blue Book system (Atech 10). The Air Force experience therefore confirms the impression of the University of Colorado researchers "that the defense function could be performed within the framework established for intelligence and surveillance operations without the continuance of a special unit such as Project Blue Book."

The conclusion which follows is that Project Blue Book does not merit future expenditures of resources. Accordingly, we recommend that it be terminated and the actions which follow from this decision, such as cancelling Air Force Regulation 80-17 and not renewing the consultant contract, be initiated. Termination of Project Blue Book would have no adverse effect on Air Force operations or research programs. It would free manpower for useful purposes, eliminate the need for a scientific consultant and relieve base commanders of their responsibility and an administrative burden.

Termination of Project Blue Book would leave no official Federal office to receive reports of UFOs. However, as already stated, reports of UFOs which could threaten national security would continue to be handled through the standard Air Force procedures designed for this purpose. Presumably, local police departments would handle reports which fall within their responsibilities. Similarly, as to scientific research, the Colorado researchers conclude that, although they do not see "any fruitful lines of advance from the study of UFO reports, we believe any scientist with adequate training and credentials who does come up with a clearly defined, specific proposal for study should be supported." We see no reason why the normal channels and criteria for the funding of scientific research would not be adequate for UFO-related research.

Some feel that a central reporting center should be established, and a proposal has been made to establish a Rare Atmospheric Phenomena Reporting Center (Atech 11 and 12). Because the problem affects a number of agencies, the center might be under the auspices of the Federal Council on Science and Technology. However, in light of the University of Colorado recommendation



that the federal government should not set up a major new agency for the scientific study of UFOs, we do not favor this suggestion and feel that UFO reports should be left to normal scientific and defense channels. If such a center is established, it should not perform an investigative function and should be initiated only on a trial basis for a specified lifetime.

9. Project Blue Book has accumulated records on over 13,000 sighting cases. During his study, Dr. Condon expressed concern about the possible loss of these records and their relative inaccessibility at Wright-Patterson Air Force Base. He was assured by Secretary Brown that we would look into the feasibility and desirability of relocating the files in the Washington area and that no action would be taken until the Colorado report was released (Atch 13). (If Project Blue Book is terminated, the records should be transferred to an appropriate archive and preserved for their historical value and to prevent charges that the Air Force is concealing facts.)

SAFOI receive the candor and cooperation essential to the successful investigation of UFOs. The Air Force adopted a practice of confidentiality; witnesses were assured that their names would not be used without their consent. (Atch 14). Therefore, access to these records and the publications SAFOI feels that an Air Force controlled archive away from the Washington, D.C. area is the most appropriate storage facility. Considering the existence of local, privately sponsored UFO investigative organizations, the ready availability of these records in the Washington area would result in an inordinate workload in clearing investigators, providing documentation, and reviewing and clearing manuscripts. Therefore, the Air University was queried about the possibility of storing these documents at the Air Force Archives (Atch 15). Air Force Air University will accept these records providing:

- a. SAFOI will answer all requests about Blue Book, and not require AF research to answer such queries.
- b. SAFOI will rigidly limit the right of access to recognized, legitimate researchers, and
- c. SAFOI will screen researcher's notes to insure that "confidentiality" is maintained (Atch 16).

10. Project Blue Book should be terminated, and Blue Book records should be transferred to the USAF Archives at Air University. The attached memorandum would initiate these actions.

RECOMMENDATION

11. That the memorandum be signed.

Carroll H.  
3  
C. H. BOLENDER, Brig Gen, USAF  
Deputy Director of Development  
DSS/Research & Development

no longer in our files  
16 Atch ←  
(Listed on Separate Page)

X 1

## INTELLIGENCE

### Unidentified Flying Objects Reporting (Short Title: UFOB)

	Paragraph
Purpose and Scope.....	1
Definitions .....	2
Objectives .....	3
Responsibility .....	4
Guidance .....	5
ZI Collection .....	6
Reporting .....	7
Evidence .....	8
Release of Facts.....	9

**1. Purpose and Scope.** This Regulation establishes procedures for reporting information and evidence pertaining to unidentified flying objects and sets forth the responsibility of Air Force activities in this regard. It applies to all Air Force activities.

#### 2. Definitions:

a. *Unidentified Flying Objects (UFOB)*—Relates to any airborne object which by performance, aerodynamic characteristics, or unusual features does not conform to any presently known aircraft or missile type, or which cannot be positively identified as a familiar object.

b. *Familiar Objects*—Include balloons, astronomical bodies, birds, and so forth.

**3. Objectives.** Air Force interest in unidentified flying objects is twofold: First as a possible threat to the security of the United States and its forces, and secondly, to determine technical aspects involved.

a. *Air Defense.* To date, the flying objects reported have imposed no threat to the security of the United States and its Possessions. However, the possibility that new air vehicles, hostile aircraft or missiles may first be regarded as flying objects by the initial observer is real. This requires that sightings be reported rapidly and as completely as information permits.

b. *Technical.* Analysis thus far has failed to provide a satisfactory explanation for a number of sightings reported. The Air Force will continue to collect and analyze reports until all sightings can be satisfactorily explained, bearing in mind that:

- (1) To measure scientific advances, the Air Force must be informed on experimentation and development of new air vehicles.

(2) The possibility exists that an air vehicle of revolutionary configuration may be developed.

(3) The reporting of all pertinent factors will have a direct bearing on the success of the technical analysis.

#### 4. Responsibility:

a. *Reporting.* Commanders of Air Force activities will report all information and evidence that may come to their attention, including that received from adjacent commands of the other services and from civilians.

b. *Investigation.* Air Defense Command will conduct all field investigations within the ZI, to determine the identity of any UFOB.

c. *Analysis.* The Air Technical Intelligence Center (ATIC), Wright-Patterson Air Force Base, Ohio, will analyze and evaluate: All information and evidence reported within the ZI after the Air Defense Command has exhausted all efforts to identify the UFOB; and all information and evidence collected in oversea areas.

d. *Cooperation.* All activities will cooperate with Air Defense Command representatives to insure the economical and prompt success of an investigation, including the furnishing of air and ground transportation, when feasible.

**5. Guidance.** The thoroughness and quality of a report or investigation into incidents of unidentified flying objects are limited only by the resourcefulness and imagination of the person responsible for preparing the report. Guidance set forth below is based on experience and has been found helpful in evaluating incidents:

a. Theodolite measurements of changes of azimuth and elevation and angular size.

b. Interception, identification, or air search

\*This Regulation supersedes AFR 200-2, 26 August 1953, including Change 200-2A, 2 November 1953.

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action. These actions may be taken if appropriate and within the scope of existing air defense regulations.

c. Contact with local aircraft control and warning (AC&W) units, ground observation corps (GOC) posts and filter centers, pilots and crews of aircraft aloft at the time and place of sighting whenever feasible, and any other persons or organizations which may have factual data bearing on the UFOB or may be able to offer corroborating evidence, electronic or otherwise.

d. Consultation with military or civilian weather forecasters to obtain data on: Tracks of weather balloons released in the area, since these often are responsible for sightings; and any unusual meteorological activity which may have a bearing on the UFOB.

e. Consultation with astronomers in the area to determine whether any astronomical body or phenomenon would account for or have a bearing on the observation.

f. Contact with military and civilian tower operators, air operations offices, and so forth, to determine whether the sighting could be the result of misidentification of known aircraft.

g. Contact with persons who might have knowledge of experimental aircraft of unusual configuration, rocket and guided missile firings, and so forth, in the area.

**6. ZI Collection.** The Air Defense Command has a direct interest in the facts pertaining to UFOB's reported within the ZI and has, in the 4602d Air Intelligence Service Squadron (AISS), the capability to investigate these reports. The 4602d AISS is composed of specialists trained for field collection and investigation of matters of air intelligence interest which occur within the ZI. This squadron is highly mobile and deployed throughout the ZI as follows: Flights are attached to air defense divisions, detachments are attached to each of the defense forces, and the squadron headquarters is located at Peterson Field, Colorado, adjacent to Headquarters, Air Defense Command. Air Force activities, therefore, should establish and maintain liaison with the nearest element of this squadron. This can be accomplished by contacting the appropriate echelon of the Air Defense Command as outlined above.

a. All Air Force activities are authorized to conduct such preliminary investigation as may be required for reporting purposes; however, investigations should not be carried beyond this point, unless such action is requested by the 4602d AISS.

b. On occasions—after initial reports are

submitted—additional data is required which can be developed more economically by the nearest Air Force activity, such as: narrative statements, sketches, marked maps, charts, and so forth. Under such circumstances, appropriate commanders will be contacted by the 4602d AISS.

c. Direct communication between echelons of the 4602d AISS and Air Force activities is authorized.

**7. Reporting.** All information relating to UFOB's will be reported promptly. The method (electrical or written) and priority of dispatch will be selected in accordance with the apparent intelligence value of the information. In most instances, reports will be made by electrical means: Information over 24 hours old will be given a "deferred" precedence. Reports over 3 days old will be made by written report prepared on AF Form 112, Air Intelligence Information Report, and AF Form 112a, Supplement to AF Form 112.

a. *Addressees:*

(1) *Electrical Reports.* All electrical reports will be multiple addressed to:

(a) Commander, Air Defense Command, Ent Air Force Base, Colorado Springs, Colorado.

(b) Nearest Air Division (Defense). (For ZI only.)

(c) Commander, Air Technical Intelligence Center, Wright-Patterson Air Force Base, Ohio.

(d) Director of Intelligence, Headquarters USAF, Washington 25, D. C.

(2) *Written Reports:*

(a) Within the ZI, reports will be submitted direct to the Air Defense Command. Air Defense Command will reproduce the report and distribute it to interested ZI intelligence agencies. The original report together with notation of the distribution effected then will be forwarded to the Director of Intelligence, Headquarters USAF, Washington 25, D. C.

(b) Outside the ZI, reports will be submitted direct to Director of Intelligence, Headquarters USAF, Washington 25, D. C. as prescribed in "Intelligence Collection Instructions" (ICI), June 1954.

b. *Short Title.* "UFOB" will appear at the beginning of the text of electrical messages and in the subject of written reports.

c. *Negative Data.* The word "negative"

in reply to any numbered item of the report format will indicate that all logical leads were developed without success. The phrase "not applicable" (N/A) will indicate that the question does not apply to the sighting being investigated.

d. *Report Format.* Reports will include the following numbered items:

- (1) Description of the object(s):
    - (a) Shape.
    - (b) Size compared to a known object (use one of the following terms: Head of a pin, pea, dime, nickel, quarter, half dollar, silver dollar, baseball, grapefruit, or basketball) held in the hand at about arms length.
    - (c) Color.
    - (d) Number.
    - (e) Formation, if more than one.
    - (f) Any discernible features or details.
    - (g) Tail, trail, or exhaust, including size of same compared to size of object(s).
    - (h) Sound. If heard, describe sound.
    - (i) Other pertinent or unusual features.
  - (2) Description of course of object(s):
    - (a) What first called the attention of observer(s) to the object(s)?
    - (b) Angle of elevation and azimuth of the object(s) when first observed.
    - (c) Angle of elevation and azimuth of object(s) upon disappearance.
    - (d) Description of flight path and maneuvers of object(s).
    - (e) Manner of disappearance of object(s).
    - (f) Length of time in sight.
  - (3) Manner of observation:
    - (a) Use one or any combination of the following items: Ground-visual, ground-electronic, air-electronic. (If electronic, specify type of radar.)
    - (b) Statement as to optical aids (telescopes, binoculars, and so forth) used and description thereof.
    - (c) If the sighting is made while airborne, give type aircraft, identification number, altitude, heading, speed, and home station.
  - (4) Time and date of sighting:
    - (a) Zulu time-date group of sighting.
    - (b) Light conditions (use one of the following terms): Night, day, dawn, dusk.
  - (5) Locations of observer(s). Exact latitude and longitude of each observer, or Georef position, or position with reference to a known landmark.
  - (6) Identifying information of all observer(s):
    - (a) Civilian—Name, age, mailing address, occupation.
    - (b) Military—Name, grade, organization, duty, and estimate of reliability.
  - (7) Weather and winds-aloft conditions at time and place of sightings:
    - (a) Observer(s) account of weather conditions.
    - (b) Report from nearest AWS or U. S. Weather Bureau Office of wind direction and velocity in degrees and knots at surface, 6,000', 10,000', 16,000', 20,000', 30,000', 50,000', and 80,000', if available.
    - (c) Ceiling.
    - (d) Visibility.
    - (e) Amount of cloud cover.
    - (f) Thunderstorms in area and quadrant in which located.
  - (8) Any other unusual activity or condition, meteorological, astronomical, or otherwise, which might account for the sighting.
  - (9) Interception or identification action taken (such action may be taken whenever feasible, complying with existing air defense directives).
  - (10) Location of any air traffic in the area at time of sighting.
  - (11) Position title and comments of the preparing officer, including his preliminary analysis of the possible cause of the sighting(s).
  - (12) Existence of physical evidence, such as materials and photographs.
- e. *Security.* Reports should be unclassified unless inclusion of data required by d above necessitates a higher classification.
- 8. Evidence.** The existence of physical evidence (photographs or material) will be promptly reported.
- a. *Photographic:*
- (1) *Visual.* The negative and two prints will be forwarded, all original film, including wherever possible both prints and negatives, will be titled or otherwise properly identified as to place, time, and date of the incident

X 4

(see "Intelligence Collection Instructions" (ICI), June 1964).

- (2) *Radar*. Two copies of each print will be forwarded. Prints of radarscope photography will be titled in accordance with AFR 95-7 and forwarded in compliance with AFR 95-6.

b. *Materiel*. Suspected or actual items of materiel which come into possession of any Air Force echelon will be safeguarded in such manner as to prevent any defacing or alteration which might reduce its value for intelligence examination and analysis.

**9. Release of Facts.** Headquarters USAF will release summaries of evaluated data which will inform the public on this subject. In response to local inquiries, it is permissible to inform news media representatives on UFOB's when the object is positively identified as a familiar object (see paragraph 2b), except that the following type of data warrants protection and should not be revealed: Names of principles, intercept and investigation procedures, and classified radar data. For those objects which are not explainable, only the fact that ATIC will analyze the data is worthy of release, due to the many unknowns involved.

BY ORDER OF THE SECRETARY OF THE AIR FORCE:

OFFICIAL:

K. E. THIEBAUD  
Colonel, USAF  
Air Adjutant General

N. F. TWINING  
Chief of Staff, United States Air Force

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# United States Senate

December 14, 1992

Mr. Clifford Stone  
Director  
Operation Blue Fly Research Project  
1421 East Tilden  
Roswell, New Mexico 88201

Dear Cliff:

Enclosed is the most recent communication that I have received from the Department of the Air Force regarding my inquiry on your behalf. It is self-explanatory and transmitted for your information. I regret that we are still unable to obtain the documents which you are seeking but the Air Force denies that the projects to which you refer exist.

If I may be of service in any other way, please do not hesitate to contact me or my office.

Thank you for this opportunity to be of service to you and kindest regards.

Sincerely,



Jeff Bingaman  
United States Senator

JB/res  
Enclosure

PLEASE REPLY TO:

825 SILVER AVE. SW, SUITE 130  
ALBUQUERQUE, NM 87102  
(808) 788-3636

148 LORETTO TOWNE CENTRE  
505 SOUTH MAIN STREET  
LAS CRUCES, NM 88001  
(808) 523-8861

114 EAST 4TH STREET, SUITE 103  
ROSWELL, NM 88201  
(808) 822-7113

119 E. MARCY, SUITE 101  
SANTA FE, NM 87801  
(808) 988-8647



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC 20330-1000



OFFICE OF THE SECRETARY

The Honorable Jeff Bingaman  
United States Senate  
Washington, D.C. 20510-3102

Dear Senator Bingaman:

This is in response to your letter to the Assistant Secretary of Defense for Legislative Affairs in behalf of Mr. Clifford E. Stone concerning his desire for information on the July 2, 1947, incident at Roswell, New Mexico.

There is no agency, nor has there ever been, at Fort Belvoir, Virginia, which would deal with UFOs or have any information about the incident at Roswell. In addition, there is no Project Moon Dust or Operation Blue Fly. Those missions have never existed.

We have checked with the Air Force Historical Agency at Maxwell Air Force Base, Alabama, for any information they might have on the Roswell incident. They found a short paragraph in the 1947 history of the base there which termed the object a radar tracking balloon. We have no further information.

From 1948 through 1969, the Air Force investigated UFOs through Project Blue Book. That program was discontinued based on an evaluation of a report prepared by the University of Colorado entitled, "Scientific Study of Unidentified Flying Objects." The conclusions of Project Blue Book are: no UFO reported, investigated, and evaluated by the Air Force has ever given any indication of threat to our national security; there has been no evidence submitted to, or discovered by, the Air Force that sightings categorized as "unidentified" represent technological developments or principles beyond the range of present-day scientific knowledge; and there has been no evidence indicating that sightings categorized as "unidentified" are extraterrestrial vehicles. Should Mr. Stone be interested in reviewing the Blue Book files, they are maintained at the National Archives in Washington, DC, telephone number (202) 523-3340.

We appreciate your interest in this matter and trust this information is helpful.

Sincerely,  
SIGNED

JOHN E. MADISON, JR., Lt Col, USAF  
Congressional Inquiry Division  
Office of Legislative Liaison

Clifford E. Stone  
Director  
Operation Blue Fly Research Project  
1421 East Tilden  
Roswell, New Mexico 88201-7955

Phone: (505) 625-0920

December 27, 1992

Dear Senator Bingaman,

Thank you for your most recent letter of December 14, 1992.

I regret that the U.S. Air Force chose to lie to you on two counts. these are, and I quote, "There is no agency, nor has there ever been, at Fort Belvoir, Virginia, which would deal with UFO's or have any information about the incident at Roswell." and "In addition, there is no Project Moon Dust or Operation Blue Fly. These missions have never existed."

Inclosures 1 and 2 are your letter to me and the Air Force's letter to you on my behalf.

Inclosures 3 and 4 are formerly classified reports from 1987 and 1989 showing that an Air Force unit at Fort Belvoir, Virginia was interested in UFO sitings in the USSR. I would say that's a mighty big "OOPS" on the comment that, "there is no agency, nor has there ever been, at Fort Belvoir, Virginia which would deal with UFO's."

Inclosures 5 thru 15 are exsample of State Department documents showing that Project Moon Dust did (does?) in fact, exist and that a U.S. Air Force "agency" located at Fort Belvoir, Virginia was heavily involved with this project. Also, I am inclosing a copy of my book. See Chapter 6 for the evidence of the existence of Operation Blue Fly and this same Air Force unit's involvement with this operation. I would again have to say that this too is a mighty big "OOPS" on the comment that, "Those missions have never existed."

Inclosures 16 thru 23 are documents from the U.S. Air Force showing that they believe that Project Moon Dust and Operation Blue Fly are so highly classified that they may neither confirm nor deny their existence or nonexistence. They took this stance even when confronted with the evidence of the existence of these missions.

Now that we know that Project Moon Dust and Operation Blue Fly did (does?) in fact exist and that apparently there does exist a U.S. Air Force unit located at Fort Belvoir,



Virginia that has some interest in UFO's for what ever the reason for that interest might be, the questions remain the same.

Once again Senator, I am requesting you demand the truth (please note the "truth") to the following questions:

1. What really crashed here in the Roswell, New Mexico area in July, 1947? It was not a weather balloon.
2. What did the U.S. Air Force recover in Kecksburg, PA. on December 9, 1965? It was not a meteor.
3. Why are Project Moon Dust and Operation Blue Fly so highly classified that the U.S. Air Force would lie to a United States Senator about their very existence? Do they involve illegal activities of some kind? Have we violated international law? What are we trying to cover up Senator???

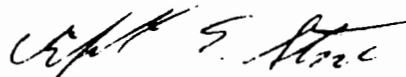
Once again, the answers to the questions I have posed can only be answered by the U.S. Air Force unit located at Fort Belvoir, Virginia (which the Air Force says doesn't exist) concerning Project Moon Dust and Operation Blue Fly (which the Air Force states have never existed).

I trust Senator you will enlighten the Air Force with the inclosed documents and again inquirer on my behalf.

I appreciate the Air Force's offer to permit me to view their former public relations program known as Project Blue Book. However, what I know about this scam in our history would probably be embarrassing to them.

As always, I appreciate your most kind assistance in this matter.

Sincerely,



Clifford E. Stone

23 enclosures

Clifford E. Stone, Director  
1421 East Tilden  
Roswell, New Mexico 88201-7955  
Phone: (505) 625-0920

April 22, 1993

Dear Senator Bingaman,

Thank you for forwarding the undated response (inclosure 1) the U.S. Air Force sent you concerning my letter of January 4, 1993. However, I still find their answers to be evasive of the issues I raise and once again untruthful. Please permit me to illustrate.

1. "The unit with responsibility for maintaining these teams was located at Fort Belvoir, Virginia. As the occasion never arose to use these air defense teams, the mission was assigned to Headquarters, United States Air Force in 1957 and expanded to include the following peace-time functions: a) Unidentified Flying Objects (UFOs), to investigate reliably reported UFOs within the United States; b) Project MOON DUST, to recover objects and debris from space vehicles that survived re-entry from space to earth; c) Operation BLUE FLY, to expeditiously retrieve downed Soviet Bloc equipment."

REBUTTAL: "This unit" was created as a result of Air Defense Regulation 24-4, dated January 3, 1953 and was known as the 4602d Air Intelligence Service Squadron. "This unit" was given the responsibility, "to investigate reliably reported UFOs within the United States" under Air Force Regulation 200-2 dated August 26, 1953. Therefore, this requirement existed long before 1957. It existed as of August 26, 1953.

Today (as of October 1, 1992) this unit is known as Detachment 4, 696th Air Intelligence Group.

Also, the definitions or functions given for both Project MOON DUST and Operation BLUE FLY are wrong and give the impression that we are talking about our space vehicles and debris. The actual functions of these two missions are:

Project MOON DUST: to locate, recover, and deliver descended FOREIGN SPACE VEHICLES (See ICGL #4, dated April 25, 1961).

Operation BLUE FLY: to facilitate expeditious delivery to the Foreign Technology Division (FTD) of MOON DUST or other items of great technical intelligence interest. This included UFOs (See AFCIN SOP dated February

12, 1960).

The point I am trying to make is that MOON DUST and BLUE FLY deals with only two items of interest. These are: a) Soviet Bloc Space Vehicles, and b) objects of unknown origin (See Department of State Airgram, entitled, "Guidance for Dealing with Space Objects Which Have Returned to Earth, dated July 26, 1973).

2. "These teams were eventually disbanded because of a lack of activity; Project MOON DUST and Operation BLUE FLY missions were similarly discontinued. The Air Force has no information that any UFOs were ever confirmed downed in the United States. Although space objects and debris were occasionally reported and recovered by United States citizens, and subsequently turned over to Air Force personnel for analysis, such events did not require the assistance of an intelligence team. the unit at Fort Belvoir continued to receive reports relating to UFOs or Project MOON DUST/Operation BLUE FLY, which it would then forward to the appropriate authority."

REBUTTAL: So, these teams were disbanded because of a lack of activity and Project MOON DUST and Operation BLUE FLY were similarly discontinued. Really???

In a letter from the Air Force to a Mr. Robert Todd dated July 1, 1987 the U.S. Air Force admitted to the existence of Project MOON DUST, stating it had been replaced, "by another name which is not releaseable" and "FTD's duties are listed in a classified passage in a classified regulation that is being withheld because it is currently and properly classified" (See inclosure 2).

The statement that, "Although space objects and debris were occasionally reported and recovered by United States citizens, and subsequently turned over to Air Force personnel for analysis, such events did not require the assistance of an intelligence team." is a half-truth. In fact, I have hundreds of State Department documents which clearly indicate we have recovered objects requiring the use of these teams in foreign countries. Many of these objects were considered of "unknown" origin. Also, none of these objects of "unknown" origin, for which I have State Department documents on, were clearly identified as U.S. object or returned to any other lunch state. To be sure, in several of these cases the U.S. was directed to down play their knowledge of the existence of these events (See Chapter 6 of my book, UFOs: LET THE EVIDENCE SPEAK FOR ITSELF).

A document found on Microfilm #31,641 from the U.S. Air Force Historical Center, Maxwell AFB, AL indicates that both MOON DUST and BLUE FLY were quite active during the Cuban Missile Crisis (See inclosure 3).

A three (3) man team was sent to Acme, PA to investigate and pick-up an object that started a fire there on December 9, 1965. This team was, in fact a Operation BLUE FLY Team (Source: Project Blue File on Kecksburg, PA. UFO sighting of December 9, 1965).

In June 1991 the U.S. Air Force responded that they could neither confirm nor deny the existence or nonexistence of records responsive to my request for information on MOON DUST, BLUE FLY, AFCIN SOP, and ICGL #4. They took this stance even when confronted with the evidence of the existence of records (See inclosure 4). Why, if the Air Force is not trying to hide something???

3. "Enclosures 3 and 4 of Mr. Stone's letter pertain to debriefings of two Soviet sources who were being interviewed for possible military information of interest. Their recounts of UFO sightings, even though they had occurred many years earlier, were included in the report for historical interest and were incidental to the main purpose of the report."

REBUTTAL: Inclosures 3 and 4 were once classified Air Force Intelligence Reports. Inclosure 3 was IIR 1 517 0002 88, dated November 25, 1987, entitled UFO siting in Shadrinsk. This report deals with UFO sightings which took place in 1974. Inclosure 4 was IIR 1 517 0619 90, dated December 7, 1989, entitled Soviet Aircrew Sightings of Unexplained Phenomena. This report deals with UFO sightings which occurred in 1984 and later.

What was the main purpose of these reports?? They deal directly with UFO sightings and make no reference to Soviet missiles, or MIGs, or tanks. So, what was the main purpose of these reports to which UFOs were incidental???

Senator, if the response at inclosure one is, in fact, true and correct; then I ask that the United States Air Force make available to your office for transmittal to me the following documents/items:

1. The new name given to Project MOON DUST and a copy of the regulation dealing with the FTD'S DUTIES within this project as referred to in the document at inclosure 2.
2. All Air Force documents dealing with Project MOON DUST and Operation BLUE FLY. This is to include the 12 documents forwarded to the Air Force from the Department of State on or about March 12, 1991 and all other documents that have been denied under my FOIA request since December 25, 1989.
3. A copy of AFCIN SOP, dated February 1960 and a copy of ICGL #4, dated April 25, 1961 and any current or up-dated changes to these documents.

4. A copy of the Operation BLUE FLY Report concerning the Acme, PA. incident of December 9, 1965.

If a full accounting of Project MOON DUST and Operation BLUE FLY cannot be provided to your office by the United States Air Force, then Senator I would suggest that the United States Air Force is attempting to hide something. After all, these missions, according to the letter sent to your office on my behalf, no longer have any useful purpose. If this is truly the case, surely no useful purpose can be given to keep this information classified.

If the U.S. Air Force cannot provide the documentation I have requested above, keeping in mind that it was denied as early as December 2, 1992 due to it being classified, I am willing to accept a full and honest explanation as to why it cannot be released. However, I remain firm in my belief that U.S. Air Force must be open, truthful, and honest with your office even if they feel they cannot be fully responsive to my request. I feel that this is the only way in which elected representatives can serve the best interest of the people.

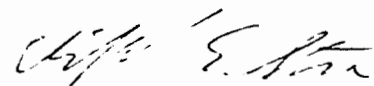
The Air Force is trying very hard to hold something back about these missions. While it may not be the recovery of space craft from some other world, it could very well be a violation of international law. Therefore, Congress must be made aware of all the facts and not just what the various agencies wish them to know.

Senator, I have taken great pains to remove this from a UFO issue and place in a more down to earth issue. In short, Project MOON DUST and Operation BLUE FLY did/does exist. Now the U.S. Air Force would have us to believe that there was nothing to these two missions, while, at the same time maintaining the any information on these two missions are highly classified and not releaseable. Why??

I hope to hear from your office soon in reponse to this letter and hopefully the Air Force will be much more responsive this time around.

As always, I wish to express my sincere appreciation to you and your staff for your interest and concern in this matter on my behalf.

Sincerely



Clifford E. Stone



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC 20330-1000



The Honorable Jeff Bingaman  
United States Senator  
114 East 4th Street, Suite 103  
Roswell, New Mexico 88201

Dear Senator Bingaman:

This is in reply to your inquiry in behalf of Mr. Clifford E. Stone on the accuracy of information we previously provided to your office. Upon further review of the case (which was aided by the several attachments to Mr. Stone's letter), we wish to amend the statements contained in the previous response to your inquiry.

In 1953, during the Korean War, the Air Defense Command organized intelligence teams to deploy, recover, or exploit at the scene downed enemy personnel, equipment, and aircraft. The unit with responsibility for maintaining these teams was located at Fort Belvoir, Virginia. As the occasion never arose to use these air defense teams, the mission was assigned to Headquarters, United States Air Force in 1957 and expanded to include the following peace-time functions: a) Unidentified Flying Objects (UFOs), to investigate reliably reported UFOs within the United States; b) Project MOON DUST, to recover objects and debris from space vehicles that had survived re-entry from space to earth; c) Operation BLUE FLY, to expeditiously retrieve downed Soviet Bloc equipment.

These teams were eventually disbanded because of a lack of activity; Project MOON DUST and Operation BLUE FLY missions were similarly discontinued. The Air Force has no information that any UFOs were ever confirmed downed in the United States. Although space objects and debris were occasionally reported and recovered by United States citizens, and subsequently turned over to Air Force personnel for analysis, such events did not require the assistance of an intelligence team. The unit at Fort Belvoir continued to receive reports relating to UFOs or Project MOON DUST/Operation BLUE FLY, which it would then forward to the appropriate authority.

Beginning in the late 1940s, the Air Force investigated UFO reports under a succession of programs, the last of which was known as Project Blue Book. In 1969, the Secretary of the Air Force, Robert C. Seamans, Jr., terminated the program after determining it did not merit the continued expenditure of resources. In announcing this decision, he noted the program concluded that no evidence had been uncovered that UFOs

Incl L

constituted a threat to national security, or that they represented technological advancements beyond the scope of contemporary scientific knowledge, or that they were, in fact, extraterrestrial vehicles. Subsequently, all Project Blue Book records have been retired to the National Archives (Attachments 1 and 2). The Air Force refers inquiries on Project Blue Book and current UFO sightings to the National Archives or private organizations such as the Center For UFO Studies, 2457 West Peterson, Chicago, Illinois, 60659.

Since the Air Force discontinued its investigative interest in UFOs in 1969, reports of UFO sightings are now recorded and forwarded only if there is a prior interest in the source of the UFO sighting. For example, Enclosures 3 and 4 of Mr. Stone's letter pertain to debriefings of two Soviet sources who were being interviewed for possible military information of interest. Their recounts of UFO sightings, even though they had occurred many years earlier, were included in the report for historical interest and were incidental to the main purpose of the report.

The Air Force does maintain an interest in space objects that survive re-entry. When referred to the Air Force, such objects are forwarded to the Foreign Aerospace Science and Technology Center at Wright-Patterson AFB, Ohio, for analysis. If the object or debris is determined to be of foreign origin, the launching country is notified by the State Department in accordance with the Treaty governing such matters.

We regret that the information in our previous letter was not more accurate and sincerely apologize for any confusion it may have caused. We trust this information is helpful.

Sincerely,

GEORGE M. MATTINGLEY, JR., Colonel, USAF  
Chief, Congressional Inquiry Division  
Office of Legislative Liaison

Attachments



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC 20330-1000

05 JUN 1991

OFFICE OF THE SECRETARY

Mr. Clifford E. Stone  
1421 E. Tilden  
Roswell, NM 88201

Dear Mr. Stone:

This is in response to your Freedom of Information Act request of December 25, 1989. We can neither confirm nor deny the existence or nonexistence of records responsive to your request regarding "Projects or Operations known as BLUE FLY, MOON DUST, AFCIN SOP, and ICGL#4," as any other response could reveal classified information concerning military plans, weapons, or operations under section 1.3(a)(1) of Executive Order 12356, "National Security Information." Therefore, pursuant to Title 5, United States Code, Section 552(b)(1), and Air Force Regulation 12-30, paragraph 10a, your request is denied.

The denial authority is James R. Clapper, Jr., Major General, Assistant Chief of Staff, Intelligence.

You may appeal this decision by writing to the Secretary of the Air Force within 60 days of the date of this letter. Include in the appeal your reasons for reconsideration and attach a copy of this letter. Address your appeal as follows:

Secretary of the Air Force  
Thru: SAF/AAIS (FOIA)  
Washington, DC 20330-1000

Sincerely,

CAROLYN W. PRICE  
Freedom of Information Manager

91-0359

Encl 7





DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON DC

REPLY TO  
ATTENTION JACL

27 AUG 1991

SUBJECT FOIA Appeal

TO  
Mr. Clifford E. Stone  
1421 East Tilden  
Roswell NM 88201-7955

This is in response to your Freedom of Information Act (FOIA) Appeal, dated 10 June 1991, concerning Projects Blue Fly and Moon Dust. The Secretary has already acted upon your 25 December 1989 FOIA Request, which is the subject of your present appeal, when he denied your request for information pursuant to exemption (b)(1) of the FOIA on 25 July 1990. Therefore, no further action is required and this matter is considered closed.

*Michael J. Barrett Jr.*

MICHAEL J. BARRETT, JR.  
Assoc. Chief, General Litigation Division  
Office of The Judge Advocate General

Encl 8



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC

REPLY TO  
ATTN OF: JACL

2 December 1991

SUBJECT: FOIA Appeal

TO: Mr. Clifford E. Stone  
1421 East Tilden  
Roswell, NM 88201-7955

1. The Office of the Secretary of the Air Force forwarded your letter of 3 September 1991 concerning your Freedom of Information Act (FOIA) appeal to us for reply.
2. As we indicated to you in our letter of 27 August 1991, the Secretary has already acted on your FOIA request and appeal pertaining to Projects Blue Fly and Moon Dust. Accordingly, no additional action is necessary and we consider the matter closed.

*William B. Beazley*  
WILLIAM B. BEAZLEY, Major, USAF  
Chief, FOIA/PA Branch  
General Litigation Division  
Air Force Legal Services Agency

Encl 9

SECTION 2

OPERATION BLUE FLY:

Conceal From Both Public and Congress

OPERATION BLUE FLY:  
Conceal From Both Public and Congress

By

Clifford E. Stone  
SFC, U.S. Army (Ret.)

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"An agency shall refuse to confirm or deny the existence or non-existence of requested information whenever the fact of its existence or non-existence is itself classifiable under this Order (Executive Order 12356, Part 3, Section 3.4(f)(1))."

The above quote is the authority for government agencies to place special restrictions on certain information and materials. These special restrictions manifest themselves in such programs as Sensitive Compartmented Information (SCI) and Extremely Sensitive Information (ESI). These two programs fall under what is call the Special Access Program (SAP).

This is what Executive Order (EO) 12356 has to say about Special Access Programs: "Agency heads designated pursuant

to Section 1.2(a) may create special access programs to control access, distribution, and protection of particularly sensitive information classified pursuant to this Order or predecessor orders. Such programs may be created or continued only at the written direction of these agency heads. For special access programs pertaining to intelligence activities (including special activities but not military operational, strategic and tactical programs), or intelligence sources or methods, this function will be exercised by the Director of Central Intelligence. (EO 12356, Part 4, Section 4.2(a))."

The point I am trying to make here, is that only when information is itself classifiable under EO 12356, Part 4, Section 4.2(a) can an agency use the statement they may, "neither confirm nor deny its existence or non-existence."

As we have already seen, from section one of this report, the U.S. Air Force invoked this response, when I asked for information on Project Moondust and Operation Blue Fly. This response of the Air Force is a clear indication that they consider any information on these two missions to be so sensitive that they must be protected by Executive Order 12356.

Among the agencies I requested information from, concerning Project Moondust and Operation Blue Fly, was the Defense Intelligence Agency (DIA). The first response I received

from the DIA was, "It has been determined that all substantive portions of the information pertaining to Project 'Moondust' are properly classified and are not releasable. The properly classified portions withheld are exempt from release pursuant to 5 U.S.C. 552 (b) (1). Freedom of Information Act. Subsection (b) (1) applies to information properly classified under the criteria provided by Executive Order 12356."

The DIA wanted to make it clear that they had no information on a Operation Blue Fly. This is true, in that Operation Blue Fly, an operation falling within the Air Force's Project Moondust, was the actual U.S. Air Force recovery teams sent out from Fort Belvoir, Virginia. However, Blue Fly operations were only activated at the direction of the DIA for the recovery of objects of non-US or unknown origins. Therefore, the DIA did, in fact, have knowledge of the existence of Operation Blue Fly and their response was nothing short of an attempted cover up of that knowledge.

More than a year later, the DIA did release some documents that had been sent to them from the State Department as a result of my Freedom of Information request to them. This information was of great interest in that it clearly showed that the DIA was much more involved, in Project Moondust, than they wished the American Public or Congress to know. To be sure, it is the DIA who provides the State Department

with instructions for the collection of Moondust materials. The DIA is the go-between for the State Department and "other interested agencies" for Project Moondust.

The North American Aerospace Defense Command (NORAD), among other agencies, collects information on "unknown tracks" they pick up on radar. This is done through what is called the "NORAD Unknown Track Reporting System (NUTR)." The information gathered by NUTR is then forwarded to, among other agencies, the DIA for their action in the event a Moondust operation is in order.

One of the other agencies involved with the collection of this type of information is the National Security Agency (NSA) who have "listening posts" around the world. Once again this information is fed to the DIA for their action.

Based upon the tracking information the DIA receives from these "tracking agencies," a meeting of a "DIA Working Group" would be called to determine what course of action to follow. If no impact was expected by this piece of "unknown space debris," then just an Intelligence Report (IR) would be filed. However, if it was reasonably expected that the object would, in fact, impact with the earth, much more activity would take place.

An Air Force unit (currently the 696th Air Intelligence

Group), located at Fort Belvoir, Virginia would be alerted for a possible Operation Blue Fly recovery of any debris that might impact with earth. In those cases involving foreign countries, "Country Teams" were established to provide "comments and recommendations" to exploit certain situations that might arise to better insure our recovery of the so-called "space debris" and allay any fears that the country or its people might express.

If the impact with earth was considered to be immediate, say to occur within 14 days or so, then an estimate would be made of the projected impact area. If this area was outside of the United States, the American Embassies in the affected country or countries would be notified to report, "any indications in (the) press or verbal reports or sightings of entry into (the) atmosphere or landing of 'space debris'." They would also, normally, be cautioned to, "avoid public comment". Also, in many cases if the Embassy in the host country would suggest that the host country should be informed, the response from the State Department was, more often than not, "Under circumstances, approach to (any foreign head of state) at this time would appear premature."

However, if the impact was not expected for a period of time, say more than 14 days and in some cases going into months, then the DIA would direct the U.S. Air Force to appoint, as an additional duty, a Project Moondust officer,



as a point of contact, within the area of expected impact. After the "mission window" had closed, the additional duty as Project Moondust officer would be terminated. It should be noted that this additional duty can be from 15 days to 6 months in length.

I wish to remind the reader, once again, that Project Moondust was to deal only with objects of non-US origin or objects of unknown origin. While, some objects of US origin might have initially come under Moondust as a result of not being immediately identifiable as being of US origin, they would have immediately been removed from this category as soon as identification had been made.

The reason for this is very simple. Objects of US origin become more of a problem for NASA than the Department of Defense because we are not really looking for any intelligence data in most of these cases. Items of interest to Moondust, however, become more of a problem for the Department of Defense than NASA directly because of a very real foreign intelligence interest in these items. Also, Project Moondust was established for the sole "peacetime mission" of locating, recovering, and delivering "descended foreign space vehicles." This included objects of unknown origin. Also, Moondust involved the gathering of technical intelligence data on the development of the Soviet space programs and their intended purposes.

In 1973, the DIA had the State Department inform all of its Embassies and Consular Posts to use the code word "Moondust" when reporting, "cases involving the examination of non-US space objects or objects of unknown origin." Based upon the information provided by the post, concerning Moondust reports, "the Department of State in conjunction with other interested agencies will determine subsequent action required."

On August 28, 1970, a Soviet satellite (COSMOS 316) broke up, upon re-entering the earth's atmosphere and impacted with the earth across the Mid-West United States. Subsequently six fragments of this satellite were recovered in Texas, Oklahoma, and Kansas. We were able to ascertain the origin of the objects by analysis of tracking data and of the fragments themselves. However, the Soviet Union declined the U.S. offer to return the fragments.

In 1972, out of fear that interest in the 1970 case might be revived as a result of on-going Senate hearings, a set of pre-approved "questions and answers" was prepared. The answer to question number nine I find to be most interesting.

The question: "Have any fragments as large as these ever come back to earth from US or other Soviet satellites?"

The answer: "We do not have any record of a US fragment or

of another Soviet fragment as large as the largest COSMOS 316 fragment surviving re-entry. The largest COSMOS 316 fragment is approximately 4 ft. X 4 ft. and weighs 640 lbs."

A once classified DIA document, dated August 17, 1967 out of Sudan, reads, "1. (U) Local press 17 Aug 67 reported that a satellite, cube shaped, weighing approximately three tons discovered 3 August 50 miles from Kutum 1425N 2460E. Satellite described as made of soft metal presumably light aluminium in oblong cubes measuring two inches by one inch tightly fastened together and covered by a silky material. Nationality not identified as no inscriptions evident on outer surface. Local authorities in El Fasher have photographs and with difficulty cut samples."

Could it be that the State Department had really forgotten about the object found in Sudan on August 17, 1967 and the fact it weighed about three tons? Or could it be that the State Department was, in fact, very truthful and that no space fragment of US or Soviet origin had been recovered weighing more than 640 lbs.? Could it be the object recovered in Sudan, weighing three tons, was truly of unknown origin???

Neither NASA, the DIA, nor the State Department are willing to release any other information on the Sudan case. As it is with other like cases, they consider this information to be currently and properly classified and not releaseable

under criteria provided by Executive Order 12356.

To be sure, when it comes to the Air Force's Operation Blue Fly recovery of such objects, the Air Force swears by Executive Order 12356. When confronted with their own documentation as to the existence of Operation Blue Fly, they still respond that they may neither deny nor confirm the existence or non-existence of any such records under the criteria provided by Executive Order 12356; not even to members of Congress.



DEFENSE INTELLIGENCE AGENCY

WASHINGTON, D.C. 20340



U-1,023/RTS-1

4 January 1990

Mr. Clifford E. Stone  
1421 E. Tilden  
Roswell, New Mexico 88201

Dear Mr. Stone:

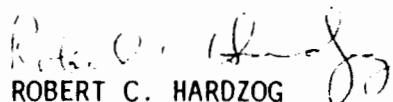
This responds to your request under the Freedom of Information Act dated 25 December 1989. Therein you requested information pertaining to Project "Bluefly" and Project "Moondust". A search of DIA's systems of records located no information pertaining to Project "Bluefly".

Upon review, it has been determined that all substantive portions of the information pertaining to Project "Moondust" are properly classified and are not releasable. The properly classified portions withheld are exempt from release pursuant to 5 U.S.C. 552 (b)(1), Freedom of Information Act. Subsection (b)(1) applies to information properly classified under the criteria provided by Executive Order 12356. There are no reasonably segregable portions of this exempt material.

You are advised that a requester may appeal, within 60 days, an initial decision to withhold a record or part thereof. Should you wish to exercise this right, you may do so by referring to case #0006-90 and addressing your appeal to:

Director  
Defense Intelligence Agency  
ATTN: RTS-1 (FOIA)  
Washington, D.C. 20340-3299

Sincerely,

  
ROBERT C. HARDZOG  
Chief, Freedom of Information and  
Privacy Act Staff



DEFENSE INTELLIGENCE AGENCY

WASHINGTON, D.C. 20340



U-1,802/RTS-1

26 April 1991

Mr. Clifford E. Stone  
1421 E. Tilden  
Roswell, NM 88201

Dear Mr. Stone:

This responds to your request under the Freedom of Information Act dated 25 December 1989. Therein you requested, from the Department of State (DOS), information pertaining to "Moondust." In processing your request, the DOS located eight documents originated by this Agency and forwarded them for review by letter dated 12 March 1991.

Upon review, it has been determined that some portions of six documents are not releasable. The information withheld is exempt from release pursuant to 5 U.S.C. 552 (b)(1) and (b)(2), Freedom of Information Act. Subsection (b)(1) applies to information properly classified under the criteria provided by Executive Order 12356. Subsection (b)(2) applies to information which pertains solely to the internal rules and practices of the Agency. All reasonably segregable portions of these documents are attached hereto.

All substantive portions of the remaining two documents are not releasable. The information withheld is exempt from release pursuant to 5 U.S.C. 552 (b)(1) and (b)(2), Freedom of Information Act. There are no reasonably segregable portions of this exempt material.

You are advised that a requester may appeal, within 60 days, an initial decision to withhold a record or part thereof. Should you wish to exercise this right, you may do so by referring to case #0224-91 and addressing your appeal to:

Director  
Defense Intelligence Agency  
ATTN: RIS-18  
Washington, D.C. 20340-3299

Sincerely,

ROBERT C. HARDZOG  
Chief, Freedom of Information and  
Privacy Act Staff

6 Enclosures a/s

**ACCESSION NUMBER: 339**

<b>Database Name</b>	NORAD Unknown Track Reporting System		
<b>Acronym</b>	NUTR		
<b>Update Frequency</b>	Monthly		
<b>Beginning Date</b>	1971		
<b>Size</b>	7,000		
<b>Producer</b>			
<b>Name</b>	North American Aerospace Defense Command		
<b>Address</b>	HQ NORAD/NPY, Peterson AFB, CO 80914-5001		
		COMMERCIAL	AUTOVON
<b>Contact</b>	Wingard, R. O.	(303) 554-3758	692-3758
<b>Distributor</b>			
<b>Name</b>	North American Aerospace Defense Command		
<b>Address</b>	HQ NORAD/NPY, Peterson AFB, CO 80914-5001		
		COMMERCIAL	AUTOVON
<b>Contact</b>	Wingard, R. O.	(303) 554-3758	692-3758
<b>Generator</b>			
<b>Name</b>	North American Aerospace Defense Command		
<b>Address</b>	HQ NORAD/NPY, Peterson AFB, CO 80914-5001		
		COMMERCIAL	AUTOVON
<b>Contact</b>	Wingard, R. O.	(303) 554-3758	692-3758
<b>Availability</b>	Limited		
<b>Database Type</b>	Alphanumeric		
<b>Program Language</b>	Pascal		
<b>Computer</b>	Zenith-150		
<b>Documentation</b>	Available		
<b>Classification</b>	Secret		
<b>Online Access</b>	No		
<b>Cost</b>	_____		
<b>Military Sponsor</b>	Air Force		
<b>Descriptors</b>	Air Force; Aircraft; Greenland; Iceland; Identification; Latitude; Longitude; North America; Number of Unknowns; Region; Scramble Actions; Scramble Bases; Soviet Traffic; Tracking; United Kingdom		
<b>Abstract</b>	The NORAD Unknown Track Reporting System records details of all air traffic declared unknown in North America and the Greenland-Iceland-United Kingdom Gap. Data are used by a wide variety of users in NORAD, USAF, Joint Chiefs of Staff, Canadian NDHQ, and region commanders in a continuing assessment of airspace sovereignty.		

EXHIBIT 1

46



SECRET

Classification

# Department of State TELEGRAM

SP

9467

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9 JUL 79 21 58Z

INDICATE:  
 COLLECT  
 CHARGE TO

DISTRIBUTION

ACTION: Amembassies BANGUI, BLANTYRE, BRUSSELS, BUJUMBE, LAMP es  
SALAAM, FORT LAMY, KHARTOUM, KIGALI, KINSHASA, LUSAKA,  
LUSAKA, NAIROBI, OTTAWA, PARIS, REYKJAVIK, ROM TANANANIVE,  
TRIPOLI, and TUNIS

~~Am~~

AmConsul Generals GENOA, LOURENCO MARQUES, LUBU and  
PALERMO

Priority

Request all posts report any indications in press or from oral reports or sightings of entry into atmosphere or landing of "space debris" on July 6. "Space debris" could have been described as meteorite, crashed plane, or satellite, etc. Local reports might not be accurate at this time. Washington estimates indicate time of impact probably between 1700 and 1800 GMT along trajectory from Mozambique and Malawi over Chad and Libya to United Kingdom, Iceland and Canada.

Recovery of any material from such space debris would be of great scientific interest to USG. Posts should not inform or initiate action with local government but should follow-up on leads as expeditious as possible.

Report priority. Avoid public comment.

End JOHNSON

1047601

REVIEWED BY: C. G. K. Date: 11/21/79  
FOR: [unclear] TS authority: [unclear]  
( ) CLASSIFY [unclear] OADR  
( ) DOWNGRADE TS to ( ) S or ( ) C, OADR

DEPARTMENT OF STATE A/CDC/MR  
( ) RELEASE ( ) DECLASSIFY  
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( ) Non-responsive info.

23

DRAFTED BY: INR/DDC:AEWellington:kam DRAFTING DATE: 7/9/70 TEL EXT: 22585 APPROVED BY: INR/DDC - [unclear] Coerr

CLEARANCES

DOD/SAFSS - Lt. Col. A. M. [unclear] Askins  
AF--Ambass, Moore SUR--Ambass, [unclear] Tabeas SCI--~~xxxxxx~~ [unclear] Pollack

SECRET

Classification





SECRET

Classification

Department of State

TELEGRAM

SP 16

110002

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INDICATE:  
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10 JUL 70 15 41Z

DISTRIBUTION

ACTION: Amembassy LONDON

PRIORITY

7

STATE \_\_\_\_\_

REF: State 109467 ✓

DEGREES

Most probable impact of "space debris" now estimated to be 52° 8" N 358° 40" E at 1743 GMT July 6. Embassy should inform Liverpool of contents reftel and may wish to consider advisability of informing appropriate UK authorities.

DEPARTMENT OF STATE A/CDC/MR

REVIEWED by ECR DATE 7/21/70

- REMOVE       DECLASSIFY
- ENCASE       DECLASSIFY in PART
- DIMMY       Non-responsive info.

FOI, EO or PA exemptions \_\_\_\_\_

- CLASSIFY as \_\_\_\_\_ TS authority to: \_\_\_\_\_, OADR
  - DOWNGRADE TS to ( ) S or ( ) C, OADR
- End

(11)

JOHNSON

DRAFTED BY  
INR/DDC:ELPeck:ksm

DRAFTING DATE  
7/10/70

TEL EXT  
21505

APPROVED BY:  
INR/DDC - James R. Gardner

CLEARANCES

(in substance)  
EUR/BMI - Mr. Goldstein *SG*  
DOD - Gen. Allen *SG*

INR - Mr. Cline *SG*

SECRET

Classification



Department of State

TELEGRAM

31

SECRET

1208

SECRET 062

PAGE 01 LONDON 05534 131642Z

45  
ACTION INR-07

INFO OCT-01 EUR-20 SS-20 NSC-10 PM-05 CIAE-00 NSAF-02

DODE-00 SCI-06 PRS-01 RSR-01 RSC-01 /072 \*  
..... 072923

P 131621Z JUL 70  
FM AMEMBASSY LONDON  
TO SECSTATE WASHDC PRIORITY 8778

S E C R E T LONDON 5534

SUBJ: SPACE DEBRIS

REF: STATE 109467 AND 110002

1. WE HAVE RECEIVED NO INFORMATION FROM PRIVATE OR PUBLIC SOURCES ABOUT "SPACE DEBRIS" JULY 6.

2. CONSIDER IT DESIRABLE TO INFORM U.K. AUTHORITIES. WOULD APPRECIATE BACKGROUND, E.G. WHAT PROMPTS QUESTION. WITHOUT SUCH INFORMATION, DOUBT ADVISABILITY APPROACHING HMG ON THIS SUBJECT.  
ANNENBERG

DEPARTMENT OF STATE A/CDC/ACP

REVIEWED BY E C K DATE \_\_\_\_\_

(X) RELEASE (X) DECLASSIFY  
( ) ENCL ( ) DECLASSIFY in PART  
( ) DENY ( ) Non-responsive info.

FOI, EO or PA exemptions \_\_\_\_\_

( ) CLASSIFY as \_\_\_\_\_ TS authority to: \_\_\_\_\_, OADR  
( ) DOWNGRADE TS to ( ) S or ( ) C, OADR

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Department of State

TELEGRAM

112520

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14 JUL 70 22 37

DISTRIBUTION

ACTION: AMEMBASSY LONDON

STATE

SUBJECT: SPACE DEBRIS

REF: London 5534 <sup>SP/16</sup>

1. Revised estimates now indicate Greenland is more likely point of impact.
2. Under circumstances, approach to HMG at this time would appear premature.

ROGERS

DEPARTMENT OF STATE A/OC/OPS

REVIEWED BY Cole DATE 7-14-70  
 RELEASE  DECLASSIFY  
 EXTEND  DECLASSIFY IN PART  
 DEFER  Non-responsive info.  
 FOR INFO ON PA exemptions \_\_\_\_\_  
 \_\_\_\_\_ TS authority to:  
 CLASSIFY as \_\_\_\_\_ OADR  
 DOWNGRADE IS TO ( ) S or ( ) C, OADR

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DRAFTED BY INR/DDC:EL/ck:sw	DRAFTING DATE 7-14-70	TEL EXT 21505	APPROVED BY Alfred E. Wellons INR/DDC - <del>XXXXXXXXXX</del>
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CLEARANCES:

EUR/BMI - Mr. Cheslaw

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Classification



64.

SP 16 US

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57582

(R)

# OUTGOING TELEGRAM Department of State

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Classification

REVIEWED by CGK Date 11/21/70

DEPARTMENT OF STATE A/CDC/MR

FOI, EO of PA, EXECUTIVE ORDER

( ) CLASSIFY as \_\_\_\_\_

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( ) RELEASE ( ) DECLASSIFY

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ACTION: Amembassy LUSAKA

STATE: 57582

REF: Lusaka 474, 602. ✓

SP 16 US

SEP 30 5 32 PM '70

1. NASA regards technical evaluation of this particular fragment as not repeat not critical to program; therefore, is interested in obtaining fragment only if this can be accomplished economically and without political difficulties. Department believes high repeat high level approach at this time not repeat not warranted, but considers it important that principle of UN Resolution 1962 of December 13, 1963 (State 14105 and copy pouched September 15) be maintained; i.e., that ownership not affected by passage through outer space or by return to earth of that object or component parts found beyond the limits of the launching state shall be returned to that state. Request you continue patient but firm insistence that fragment be returned.

FYI. Definite identification of fragment cannot be made without personal inspection and, possibly, analysis but, based

Drafted by: NASA: KFMautner: JWM Tel. Ext. 6751  
 SCI: JWMilner: vml 9/30/66  
 Telegraphic transmission and classification approved by: SCI-Col. James W. Milner JWM

Clearances: AF/AFSE - Mr. Fain JWM L/UNA - Mr. Gaither JWM  
 (informed) G/PM - Mr. George JWM

CONFIDENTIAL  
Classification

CONFIDENTIAL

Classification

On information provided by Embassy and fact fragment QUOTE identified by competent Zambian authorities as being of American origin UNQUOTE there is strong presumption that fragment is from US space vehicle. Accordingly, NASA does not contemplate sending official for identification purposes. However, if Embassy believes NASA expert can be of assistance to Embassy by identifying fragment, NASA willing send one. If US ownership acknowledged by GOZ, NASA prepared endeavor to retrieve fragment/ ~~END FYI~~ if desirable and economically feasible. END FYI.

2. Zambian fragment believed part of Apollo AS-203. Similar fragment from same vehicle landed in Peru July 9, 1966. That fragment returned to US same month for analysis. FYI-If desired, US willing return portion to Zambia for historic and display purposes, but wishes not to have this made part of a deal. END FYI.

3. FYI. Registration of launch of Apollo AS-203 submitted to UN September 19. This is normal lag between launch and registration. END FYI.

4. In discussions with officials GRZ, the following additional arguments may be drawn on as appropriate:

a. Resolution 1962, known as QUOTE Declaration of Legal Principles Governing the Activities of States in the Exploration and use of Outer Space UNQUOTE, was passed unanimously by the 18th General

CONFIDENTIAL

Classification

~~CONFIDENTIAL~~  
Classification

Assembly. Zambia not then an independent state, but all African members of UN at that time supported the Resolution as did US and USSR. Following are African states which became UN members after passage of resolution: Zambia, Gambia, Malawi and Kenya.

b. Twenty pound metal fragment recovered Manitowoc, Wisconsin ~~192~~ 1962 identified as of Soviet origin and returned to USSR by US.

c. Any fragments of US origin reported found have been returned by finder countries.

BALL

end

GP-4

~~CONFIDENTIAL~~  
Classification

SP 16 US

63

# OUTGOING TELEGRAM Department of State

INDICATE:  COLLECT  
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LIMITED OFFICIAL USE

Classification

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126

REVIEWED by CGK Date 11/21/90

FOI, EG or P.A. comments

CLASSIFY \*  
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( ) CONFIDENTIAL  
( ) SECRET

TS AND/or ( )  
( ) DOWNGRADE TS to ( ) S or ( ) G O A D

DEPARTMENT OF STATE A/CY/MP

( ) RELEASE  
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( ) DECLASSIFY IN PART  
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( ) LIMIT

( ) NO-DECLASSIFICATION

(3)

ACTION: Amembassy LUSAKA

INFO: Amembassy KINSHASA

STATE: 155810

REF: a. Lusaka 1295; b. State 95220; c. State 14105  
1966 1966

1. Responsibility of GOZ to return fragment is explicit under UN Resolution 1962 (XVIII) of December 13, 1963 (quoted reference c.). Recently agreed Space Treaty contains similar provision, Because of long time which has elapsed since reentry, scientific value has been negated. Consequently, there is no urgency in effecting return to NASA. Adherence to the principles embodied in UN Resolution is more significant than technical consideration.

2. Since obligation to return rests on Government, negotiations should be addressed to GOZ rather than Lawless. NASA willing to pay reasonable cost as determined by Amembassy Lusaka for recovery, storage, salvage and transportation of fragment from Mushingashi to Ndola. However, £ 200 considered maximum value of such services. Portion of fragment acceptable

155810

Drafted by: NASA:CNJones: SCI:DWBowie:vml 3/15/67n Clearances: UNP-Mr. Proyer AFCEM-Mr. Haverkamp	Tel Ext: 6751 L/UNA-Mr. Small AFSE-Mr. Hoyt	Telegraphic transmission and classification approved by: SCI-Mr. THENesbitt
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LIMITED OFFICIAL USE

Classification



LIMITED OFFICIAL USE*Classification*

if cheaper than removal intact, provided cost if any is proportionate. Nearest MAC terminal is Ndjili (Kinshasa). Commercial transportation authorized from Ndola to Ndjili. Billing data contained in reference b. Military airlift can be provided from Ndjili to US on space available basis.

RUSK

LIMITED OFFICIAL USE*Classification*



DEPARTMENT OF STATE

Washington, D.C. 20520

E 340

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LIMITED OFFICIAL USE

July 13, 1972

MEMORANDUM

TO : Smithsonian - Mr. Durant  
 DOD/ISA - Mr. Anderson  
 DIA - Mr. Green  
 NASA - Mr. Jones  
 USUN - Mr. Reis  
 STATE-IO/UNP - Mr. Black  
 INR/RSG - Mr. Lissfelt  
 EUR/SOV - Mr. Kadilis  
 L/UNA - Mr. Stowe  
 SCI/SAM - LTC Campbell

7/13/72  
 SP 16 455R  
 UN 8-3  
 POL 17 255R-25

SUBJECT: Questions and Answers with regard to the Soviet Space Objects which fell in the US Middle West

Questions on the Middle West space fragments may arise during the course of the Senate hearings on the Outer Space Liability Convention, generated either by consideration of the Convention or by recent studies\* issued by the Senate Committee on Aeronautical and Space Sciences. Moreover, since media interest in the Mid-West space objects may be revived by the hearings or by the placing of the objects on display in the National Air and Space Museum of the Smithsonian Institution and the USAF Air Museum, Executive Branch press spokesmen and other officials must be ready to field a variety of probing questions on the subject. A draft set of Q's & A's has been prepared with a view toward providing (1) a factual presentation which places the Mid-West case in proper perspective, and (2) the basis for uniform press guidance governing all Executive Branch press spokesmen.

SP 16 455R

- \*--1. Convention on International Liability for Damages Caused by Space Objects, US Senate, Committee on Aeronautical and Space Sciences, 92D Congress, 2d Session, Staff Report, May 1972.
2. Soviet Space Programs, 1966-70, US Senate, Committee on Aeronautical and Space Sciences. 92D Congress, 1st Session. Staff Report by Congressional Research Service and Library of Congress, December 9, 1971.

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PM / AE : AR Turrentine

REVIEWED by EGK Date 11/20/90  
 FOI, EO or PA exceptions \_\_\_\_\_ TS authority to: \_\_\_\_\_  
 ( ) CLASSIFY as \_\_\_\_\_ OADR  
 ( ) DOWNGRADE/TS to ( ) S or ( ) C, OADR

DEPARTMENT OF STATE A/CDC/MR  
 ( ) RELEASE ( ) DECLASSIFY  
 ( ) EXISE ( ) DECLASSIFY in PART  
 ( ) DENY ( ) DELETE  
 ( ) Non-responsive info.

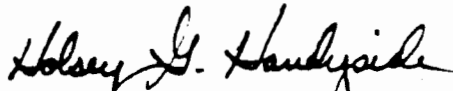
LIMITED OFFICIAL USE

2.

Would you review the attached Q's & A's for possible use (first) during the Senate hearings in conjunction with other liability related material prepared by State IO and USUN and previously cleared, and (second) by press spokesmen and substantive officers throughout the Executive Branch.

In general, we would anticipate that any questions on the Mid-West case related to foreign policy which go beyond the scope of the cleared Q's & A's would be referred to the Department of State. Similarly, questions with technical-military implications should be referred to the Department of Defense. All officers who are likely to be questioned on this issue should carefully review the guidance issued by their parent agency with respect to making statements on classified space matters.

May we have your clearance/comments on the Q's & A's and any additional comments you may have on the handling of this issue by COB July 21 (telephone PM/AE ext. 21837).



Halsey G. Handyside  
Director, Office of Atomic  
Energy and Aerospace  
Bureau of Politico-Military Affairs

Attachment:  
Draft Q's & A's  
dated July 13

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7/13/72

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QUESTIONS AND ANSWERS: : : :  
WITH REGARD TO THE SOVIET SPACE OBJECTS  
WHICH FELL IN THE US MIDDLE WEST  
ON AUGUST 28, 1970

1. What is the background on the space objects which fell in the US Middle West a few years ago?

Answer: On August 28, 1970, a Soviet satellite (COSMOS 316) broke up, re-entered the earth's atmosphere and returned to earth impacting across the US Mid-West. Subsequently, six fragments were recovered in Texas, Oklahoma, and Kansas. An analysis of tracking data and of the objects themselves clearly indicated the debris was of Soviet origin. The United States met its obligations under the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space by informing the UN Secretary General and the Soviet Embassy that the fragments had been recovered. The US offered to return the space objects to the Soviet Union and provided Soviet representatives several opportunities to inspect them. The Soviet Union did not exercise its option under the Agreement to examine the space objects or request their return.

2. Did the Soviet space objects injure anyone or cause any damage when they fell to earth?

Answer: We have received no report of injury to persons or damage to property associated with this case.

3. What has become of the Soviet space objects?

Answer: The space objects have been made available to the National Air and Space Museum of the Smithsonian Institution. We understand that an appropriate public exhibit of space debris, including the Mid-West fragments, is under consideration.

4. What kind of satellite was COSMOS 316?

Answer: From the nature of the material which survived re-entry it seems certain that COSMOS 316 was an experimental vehicle and the fragments appear to have been a dummy rather than an operational payload.

5. What was COSMOS 316 doing? Was it a FOBS or "killer satellite" test?

Answer: The information available suggests that COSMOS 316 was some sort of experimental vehicle rather than an operational satellite. Any attempt on my part to deduce the "mission" of COSMOS 316 would be pure speculation and therefore inappropriate.

6. Did the Soviet Union admit or deny that the fragments came from a Soviet satellite?

Answer: The Soviet Union evinced no particular interest in the fragments. Soviet representatives neither confirmed nor denied explicitly that the Mid-West space objects were of Soviet origin. Under the Return Agreement, a party is not required to request the return of its space objects that come back to earth in another country's territory.

7. Why didn't the Soviet Union want to claim its space objects and have them returned?

Answer: Only the Soviet Union can answer that question.

8. If any damage had been done, would the Soviet Union have been liable and would they have paid claims?

Answer: If such a case were to occur today, the Soviet Union, as a party to the Outer Space Liability Convention, would be liable for any damages caused by its space objects returning to the earth. We have no reason to believe that the Soviet Union would not live up to its obligations under the Convention if objects it launched into space were to cause injury or damage.

9. Have any fragments as large as these ever come back to earth from US or other Soviet satellites?

Answer: We do not have any record of a US fragment or of another Soviet fragment as large as the largest COSMOS 316 fragment surviving re-entry. The largest COSMOS 316 fragment is approximately 4 ft. x 4 ft. and weighs 640 lbs.

10. What are the chances of such large objects falling on the US again?

Answer: It is likely that some space objects will survive re-entry and fall within US territory again at some time in the future. However, the probability that such debris will cause damage or injury to anyone is exceedingly remote.

11. Can anything be done to protect people from space debris?

Answer: At present there is no protection from falling space debris other than legal compensation under the Outer Space Liability Convention. The potential danger is so slight, however, that it is statistically irrelevant when compared with the day-to-day hazards associated with urban living which we routinely accept.

12. To whom do the COSMOS 316 space fragments now belong?

The Smithsonian? The United States Government? The people who found them?

Answer: The ownership of space objects is not affected by the return of the objects to earth. The COSMOS 316 objects remain the property of the Soviet Union, however, they have indicated that they have no further interest in the matter. The United States Government may be considered as "holding" the objects.

13. Have other space objects fallen to earth and been recovered?

Answer: Yes. A listing of such objects may be found in Appendix F of the Senate Committee on Aeronautical and Space Sciences Staff Report entitled "Convention on International Liability for Damage Caused by Space Objects" May 1972.

32

# OUTGOING TELEGRAM Department of State

INDICATE  SOURCE  
 CHARGE TO

CONFIDENTIAL  
Classification

18123  
JUN 29 2 13 PM '62

Origin ACTION: Embassy, RIO DE JANEIRO 3806 (4)

Info:

USAIRA C-43, TDPG 261730Z, June re falling rocket metal fragments on Brazil requests USAF furnish wording suitable note explaining origin fragments and allaying public fears of similar occurrences in future. Request Country Team comments and recommendations.

End.

DEPARTMENT OF STATE A/CDC/AR

FORWARDED BY EGW DATE 11/21/90

- UNCLASSIFIED  DECLASSIFY
- CONFIDENTIAL  DECLASSIFY IN PART
- SECRET  Non-responsive info.

EXEMPT FROM FOIA exemptions \_\_\_\_\_  
\_\_\_\_\_ TB authority to:  
( ) CONFIDENTIAL \_\_\_\_\_, OADR  
( ) DOWNGRADE IS to ( ) S or ( ) C, OADR

Declassified by RMIR

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RIO-3806

900.802/6-2962

Drafted by:

APA:EST:Wellman dated 6/28/62

Telegraphic transmission and classification approved by:

APA/EST - Mr. Wellman

*[Handwritten signature]*

EST/B - Mr. Crane *[Handwritten initials]*

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Classification

2/AF Mr Dillery  
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SECTION 3

UFO'S AND THE SOVIET CONNECTION

# UFO'S AND THE SOVIET CONNECTION

By

Clifford E. Stone  
SFC, U.S. Army (Ret.)

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In September 1947 the Commanding General of the Army Air Force asked for the considered opinions of the Air Material Command concerning the so-called "Flying Discs". On September 23, 1947 LTG Twining responded to that request stating, among other opinions, that "The phenomenon reported is something real and not visionary or fictitious." and "The possibility that some foreign nation has a form of propulsion possibly nuclear, which is outside of our domestic knowledge."

The United States Army Intelligence Division had already concluded UFO's were something real and on January 21, 1948 released "Intelligence Collection Memorandum Number 7". This memorandum required various overseas commands and military attaches to collect as much information as possible on "unconventional aircraft" of possible Soviet origin. An inclosure to this document listed the type of

information desired. Among the desired information was reports on, "any aircraft whose shape approximates that of an oval, disc, or saucer."

On January 22, 1948 Project Sign was established to investigate reports of Unidentified Flying Objects (UFO's). This project was given a secret classification with an A-2 Priority. In later years this project would be called Project Grudge and end as Project Blue Book. However, the personnel working these projects were not made aware of the really good UFO reports. They were aware of the "rumors" of other reports existing and other agencies' involvement with the Phenomena.

In August, 1948 the Air Technical Intelligence Center, at the direction of the Directorate of Air Intelligence, did a report known as the "Estimate of the Situation". The situation was UFO's; the estimate was that some reported UFO's were interplanetary. This report was approved by the Directorate of Air Intelligence and forwarded to, then Chief of Staff, General Hoyt S. Vandenberg. In February, 1949 General Vandenberg rejected the report, stating that the report lacked sufficient evidence to prove UFO's were of interplanetary origin.

The Directorate of Air Intelligence was in a position to know that the Chief of Staff would reject the "Estimate of the Situation" due to lack of sufficient evidence.

Therefore, the Directorate of Air Intelligence released their own report, dated December 10, 1948, entitled, "Analysis of Flying Object Incidents in the U.S.". This report was classified top secret and concluded UFO's were real and if not of U.S. origin, then they were probably of Soviet origin. Also, this report concluded that an advanced technology was involved.

From this time on the Air Force, among other agencies, would gather intelligence from the field on the basis that UFO's were something real and they might be of Soviet origin. This activity continues to this very day, based on the same reasoning.

A memorandum for record, dated April 25, 1952 from the Air Force's Special Study Group stated, "In connection with flying saucers, the Group is attempting to develop a proper framework for fruitful analysis. The Air Force cannot assume that flying saucers are of non-terrestrial origin, and hence, they could be Soviet."

Going into 1948, up to the present, the Air Force, among other agencies, has continued to gather intelligence on "reliably reported UFO's" from around the world. These reports were not made part of the Project Blue Book system and no member of Congress was ever made aware of this gathering of UFO intelligence information or even the existence of this intelligence data gathered.

From 1947 up to the present the Air Force, among other agencies, has had programs in place, such as Project Moondust and Operation Blue Fly, for the immediate recovery of alleged downed UFO's and objects of unknown origin. No member of Congress has ever been briefed on the nature and intent of these missions.

Communications Instructions Reporting Vital Intelligence Sightings (Short Title - CIRVIS) still requires UFO's to be reported as, "intelligence sightings of vital importance to the security of the United States and Canada." When the Air Force is asked for copies of the CIRVIS Reports on file, they state none exist. Yet, the documentation released thru FOIA clearly show that many such reports should exist. Once again no member of Congress has ever been briefed on the existence of the FOIA information and have explained why the CIRVIS Reports are missing.

In 1979, NASA translated into English a Soviet study on UFO's. Copies of this report were made available to the Air Force, the National Security Agency, the Defense Intelligence Agency, and other government agencies. This report seemed to indicate that the Soviet were just as mystified by the UFO Phenomena as we are. Again, no member of Congress was ever briefed as to the need to translate this report into English and what we hoped to accomplish as a result of its translation.

Intelligence information on UFO sightings and events is gathered by the American Intelligence Community and Congress has yet to be briefed as to the need for the collection of this type of information or what is hoped to be accomplished by gathering this type of information. To be sure, Congress has never been briefed on the gathering of this information. Also, to date the American Intelligence Community has not been able to show a connection between the reported phenomena and the Soviets or any other foreign power.

The gathering of intelligence information on UFO sightings and events by the American Intelligence Community requires the expenditures of funds that must be approved by Congress. Yet, with Congress not being briefed on these activities, how does the Intelligence Community get its funding? Without the approval of Congress, how can any governmental agency justify the expenditures of funds, on a subject matter, that, according to the United States Government, officially does not exist; and yet, highly classified files are maintained on this same subject matter?

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HEADQUARTERS  
 AIR MATERIEL COMMAND

IN REPLY ADDRESS BOTH  
 COMMUNICATION AND EN-  
 VELOPE TO COMMANDING  
 GENERAL, AIR MATERIEL  
 COMMAND, ATTENTION  
 FOLLOWING OFFICE SYMBOL

TSDIN/HQM/1g/6-4100  
 WRIGHT FIELD, DAYTON, OHIO

TSDIN

SEP 28 1947

SUBJECT: AMC Opinion Concerning "Flying Discs"

TO: Commanding General  
 Army Air Forces  
 Washington 25, D. C.  
 ATTENTION: Brig. General George Schulgen  
 AC/AS-2

1. As requested by AC/AS-2 there is presented below the considered opinion of this Command concerning the so-called "Flying Discs". This opinion is based on interrogation report data furnished by AC/AS-2 and preliminary studies by personnel of T-2 and Aircraft Laboratory, Engineering Division T-3. This opinion was arrived at in a conference between personnel from the Air Institute of Technology, Intelligence T-2, Office, Chief of Engineering Division, and the Aircraft, Power Plant and Propeller Laboratories of Engineering Division T-3.

2. It is the opinion that:

a. The phenomenon reported is something real and not visionary or fictitious.

b. There are objects probably approximating the shape of a disc, of such appreciable size as to appear to be as large as man-made aircraft.

c. There is a possibility that some of the incidents may be caused by natural phenomena, such as meteors.

d. The reported operating characteristics such as extreme rates of climb, maneuverability (particularly in roll), and action which must be considered evasive when sighted or contacted by friendly aircraft and radar, lend belief to the possibility that some of the objects are controlled either manually, automatically or remotely.

e. The apparent common description of the objects is as follows:-

(1) Metallic or light reflecting surface.

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Basic Ltr fr CG, ANC, WF to CG, AAF, Wash. D. C. subj "AMC Opinion Concerning "Flying Discs".

- (2) Absence of trail, except in a few instances when the object apparently was operating under high performance conditions.
- (3) Circular or elliptical in shape, flat on bottom and domed on top.
- (4) Several reports of well kept formation flights varying from three to nine objects.
- (5) Normally no associated sound, except in three instances a substantial rumbling roar was noted.
- (6) Level flight speeds normally above 300 knots are estimated.

f. It is possible within the present U. S. knowledge — provided extensive detailed development is undertaken — to construct a piloted aircraft which has the general description of the object in subparagraph (e) above which would be capable of an approximate range of 7000 miles at subsonic speeds.

g. Any developments in this country along the lines indicated would be extremely expensive, time consuming and at the considerable expense of current projects and therefore, if directed, should be set up independently of existing projects.

h. Due consideration must be given the following:-

- (1) The possibility that these objects are of domestic origin - the product of some high security project not known to JC/AS-2 or this Command.
- (2) The lack of physical evidence in the shape of crash recovered exhibits which would undeniably prove the existence of these objects.
- (3) The possibility that some foreign nation has a form of propulsion possibly nuclear, which is outside of our domestic knowledge.

3. It is recommended that:-

a. Headquarters, Army Air Forces issue a directive assigning a priority, security classification and Code Name for a detailed study of this matter to include the preparation of complete sets of all available and pertinent data which will then be made available to the Army, Navy, Atomic Energy Commission, JEDS, the Air Force Scientific Advisory Group, NACA, and the RAND and NEPA projects for comments and recommendations, with a preliminary report to be forwarded within 15 days of receipt of the data and a detailed report thereafter every 30 days as the investi-



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Basic Ltr fr CG, AMC, WF to CG, AAF, Wash. D.C. subj "AMC Opinion Concerning "Flying Discs"

gation develops. A complete interchange of data should be effected.

4. Awaiting a specific directive AMC will continue the investigation within its current resources in order to more closely define the nature of the phenomenon. Detailed Essential Elements of Information will be formulated immediately for transmittal thru channels.



N. F. TWINING  
Lieutenant General, U.S.A.  
Commanding

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IG/P&C Branch/Collection Sect  
L Jol Ligon/2931/ew

DEPARTMENT OF THE ARMY  
General Staff, United States Army  
Intelligence Division  
Washington 25, D. C.

INTELLIGENCE COLLECTION )

21 January 1948

MEMORANDUM NUMBER 7 )

UNCONVENTIONAL AIRCRAFT

OBJECT

1. The object of this memorandum is to enunciate partial and continuing requirements for information in the field of unconventional aircraft.

GENERAL

2. The German High Command indicated a definite interest in the Horten type of flying wing and were about to embark on a rigorous campaign to develop such aircraft toward the end of the war. A Horten design known as the IX which was designated as the Go-8-229 and Go-P-60 (night fighter) was to be manufactured by the Gotha Plant. It is reported that a contract for fifty such aircraft was planned but only three or four were built. This plant is now in the hands of the Russians. A recent report indicates that the Russians are now planning to build a fleet of 1800 Horten VIII (six engine pusher) type flying wing aircraft. The wing span is 131 feet. The sweep-back angle is 30 degrees. The Russian version is reported to be jet propelled.

REQUIREMENTS

3. Requirements appear at inclosure.

SPECIAL INSTRUCTIONS

4. The inclosure was prepared to insure collection action principally in the field of Soviet activities in the U.S.S.R. Portions, however, have equal application to Soviet activities outside the U.S.S.R. and to activities of non-Soviet agencies and individuals located within areas of responsibility of addressees. The inclosure will therefore be applied locally both as an enunciation of specific requirements and as a general guide for collecting and reporting in the subject field.

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By Fush NARS, Date 1/10/79

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CONTROL

5. Replies to the specific requirements at inclosure will refer to Control Number A-1917. Replies to other unconventional aircraft requirements will refer to other appropriate control numbers, if any.

FOR THE DIRECTOR OF INTELLIGENCE:

*R. F. Ennis*  
R. F. ENNIS  
Colonel, GSC  
Chief, Intelligence Group

MAILED 10, WFOBS 21 JAN 1957

Incl:  
Intelligence Requirements -  
Unconventional Aircraft

DISTRIBUTION

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- Military Attache, American Embassy, Teheran, Iran

(Cont'd on page 3)

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For Action Cont

Military Attache, American Embassy, Baghdad, Iraq  
Military Attache, American Embassy, Rome, Italy  
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Military Attache, American Embassy, Belgrade, Yugoslavia

For Information

Special Asst. for Research and Intelligence, Department of State  
Central Intelligence Agency  
Chief of Naval Intelligence, Department of the Navy  
Director of Intelligence, Department of the Air Force (6 copies)

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INTELLIGENCE REQUIREMENTS - UNCONVENTIONAL AIRCRAFT

1. Research and Development

- a. What German scientists had a better-than-average knowledge of the Horten brothers' work and perspective thinking; where are these scientists now located, and what is their present activity? Should be contacted and interrogated.
- b. What Russian factories are building the Horten VIII design?
- c. Why are the Russians building 1,800 of the Horten VIII design?
- d. What is their contemplated tactical purpose?
- e. What is the present activity of the Horten brothers, Walter and Rismar?
- f. What is known of the whereabouts of the entire Horten family, particularly the sister? All should be contacted and interrogated regarding any contemplated plans or perspective thinking of the Horten brothers, and any interest shown by the Russians to develop their aircraft.
- g. Are any efforts being made to develop the Horten "Parabola" or modify this configuration to approximate an oval or disc?
- h. What is the Horten perspective thinking on internal controls or controls that are effective mainly by streams of air or gas originating from within the aircraft to supplant conventional external surface controls?

2. Control

For any aircraft whose shape approximates that of an oval, disc, or saucer, information regarding the following items is requested:

- a. Boundary layer control method by suction, blowing, or a combination of both.
- b. Special controls for effective maneuverability at very slow speeds or extremely high altitudes.
- c. Openings either in the leading edge top and bottom surfaces that are employed chiefly to accomplish boundary layer control or for the purpose of reducing the induced drag. Any openings in the leading edge should be reported and described as to shape, size, etc. This investigation is significant to justify a disc shape configuration for long-range application.

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- d. Approximate airfoil shape in the center and near the tips.
- e. Front view and rear view shape.

## 3. Items of Construction

- a. Type of material, whether metal, ferrous, non-ferrous, or non-metallic.
- b. Composite or sandwich construction utilizing various combinations of metals, plastics, and perhaps balsa wood.
- c. Unusual fabrication methods to achieve extreme light weight and structural stability particularly in connection with great capacity for fuel storage.

## 4. Items of Arrangement

- a. Special provisions such as retractable domes to provide unusual observation for the pilot or crew members.
- b. Crew number and accommodation facilities.
- c. Pressurized cabin equipment.
- d. High altitude or high speed escapement methods.
- e. Methods of pressurization or supercharging from auxiliary units or from the prime power plant.
- f. Provisions for towing - especially with short fixed bar, and for re-fueling in flight.
- g. Provisions for assisted take off application.
- h. Bomb bay provisions, such as dimensions, approximate location, and unusual features regarding the opening and closing of the doors.

## 5. Landing Gear

- a. Indicate type of landing gear - whether conventional, tricycle, multiple wheel, etc.
- b. Retractable, and jettison features for hand gear.
- c. Provisions for take off from ice, snow, or water.
- d. Skid arrangements for either take off or landing.

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## 6. Power Plan

a. Information is needed regarding the propulsion system used in the aircraft. Possible types of engines that could be employed include:

- (1) Reciprocating (piston type) engine or gas turbine. Either or both of these could be used to drive propellers of conventional or special design, rotating vanes, ducted fans, or compressors.
- (2) Jet propulsion engines including turbo jets, rockets, ram-jets, pulse jets, or a combination of all four.
- (3) Nuclear propulsion (atomic energy). Atomic energy engines would probably be unlike any familiar type of engine, although atomic energy might be employed in combination with any of the above types.

Aircraft would be characterized by lack of fuel systems and fuel storage place.

b. The power plant would likely be an integral part of the aircraft and could possibly not be distinguished as an item separate from the aircraft. If jet propulsion is used, large air handling capacity, characterized by a large air inlet and large exhaust nozzle, should be evident. The size of entrance and exit areas would be of interest. It is possible that the propulsive jet is governed or influenced for control of the aircraft. The presence of vanes or control surfaces in the exhaust or methods of changing the direction of the jet should be observed.

c. Information desired on the propulsion systems pertains to the following items:

- (1) Type of power plant or power plants.
- (2) General description.
- (3) Rating (thrust, horsepower, or air flow).
- (4) Type of fuel.
- (5) Catalytic agents for super-performance or normal cruising power.

MEMORANDUM FOR RECORD

PROBLEM:

1. To justify a request for temporary duty for Lt. Col. Sterling, Chief, Special Study Group, and Dr. Fossony, Air Intelligence Specialist, GS-15, in Europe for a period of approximately five weeks commencing 15 May 1952.

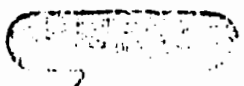
FACTS AND DISCUSSION:

2. The effectiveness of the USAF is dependent upon proper anticipation of future enemy weapons programs. At present, the USAF has a development program ranging from jet bombers via sub-sonic and super-sonic guided missiles to the Atlas ballistic missile. There is, however, no tenable and convincing estimate of future Russian delivery systems, particularly those missiles of super-sonic speed. Moreover, current estimates do not reflect the possibility that the Russians may have overtaken the U.S. in advanced guided missile research and development. Further, estimates do not devote proper attention to the historical fact that technology presently is under the impact of a very considerable acceleration. This upswing of progress tends to telescope technological accomplishments into far shorter periods than required for accomplishments of analogous magnitude at an earlier time.

3. The Special Study Group has undertaken a comprehensive study of Russian capabilities in the field of advanced aerial delivery systems. This study is expected to determine the nature of such systems, their strategic implications, and probable time tables as to development and operational availability. As an important side product, it is hoped that some much needed light can be shed on the vexing "flying saucer" problem.

4. According to present plans, the study consists of the following broad categories: Advanced jet bombers of conventional configuration; ballistic and glide type missiles, as well as manned aircraft of unconventional design; orbital missile (including the Sanger global range bombing system) and orbital bombing platforms, and flying saucers.

5. In connection with flying saucers, the Group is attempting to develop a proper framework for fruitful analysis. The Air Force cannot assume that flying saucers are of terrestrial origin, and hence, they could be Soviet.





6. Two examples are given to support this hypothesis: A U.S. Naval officer, tracking by means of a theodolite, ascribed to a saucer an altitude of 50 miles, a horizontal velocity of about 8,000 meters (5 miles) per second and a climb of 4,400 meters (2.7 miles) per second. It frequently has been stated that such velocities cannot be produced on earth. Such a statement is correct insofar as our present engineering skills go, but it appears incorrect with respect to theoretical knowledge. There are several propulsion methods by which, provided the engineering problems are solved, such speeds could be attained. For example, beryllium oxidized by ozone, liquid hydrogen enriched by stable hydrogen atoms, a gas consisting of pure hydrogen atoms, and ionized substances are possible fuels for ultra high-speed engines. The fact must be stressed that the speed recorded by the theodolite is slightly higher than the speed required for the escape from the gravitational pull of the earth.

7. In addition, discussion with astronomers have produced an argument which seems to exclude extra-terrestrial origin of the saucer. An object travelling at the speed of light and coming from outside our planetary system would be ascertained by the "Astronomical patrol" (daily photographs of the skies) at least four years in advance. According to the astronomers, there is no possibility of failure.

8. If the objects were from either Mars or Venus, our two next neighbors, the maximum theoretical speed would be 13,250 miles/second, or a travel time of less than an hour from the planet to the earth. Such speeds probably are impossible over "short distances", and would require such hard braking that the objects still would be sighted. Rather than flying directly to the earth, it is likely that a missile from an adjacent planet would assume an orbital path before entering the earth's atmosphere. Thus, there would be a high degree of probability that the missile would be located. Last but not least, the inhabitants of the space missile undoubtedly would have acquired the capability to fly to the earth long before they were able to reach the above fantastic speeds. It therefore, would be logical to assume that some contacts previously would have been made.

9. Calculations have been made on the basis of a speed of 6 to 15 miles/second, in which case a trip from either Mars or Venus would take from one to five months. If so, the ships probably would be observed. On the basis of present theoretical knowledge, then, it is estimated that the first trips from earth to Mars and Venus would require 266 and 146 days, respectively. Since spaceships would possess considerable albedo (reflectivity), the possibility of extra-terrestrial visitors escaping astronomical detection is highly doubtful.

10. The working hypothesis that the saucers are of Soviet origin

has not been adopted to preclude other assumptions. There is need for formulating all hypotheses which could be used as basis of proper intelligence programs. To date, the Special Study Group has uncovered several significant leads. These leads, coupled with the data of the Air Technical Intelligence Center concerning Soviet progress in the design of missile engines, definitely underscore the immediate requirement for a thorough investigation of Russian capabilities in this field.

11. These leads include:

a. The world-renowned Russian scientist, Cosntantine E. Tsiolkovski, undertook initial investigations in the field of high altitude and interplanetary flying and correctly anticipated the need for rocket propulsion.

b. Under Tsiolkovski's influence, the Soviets in April 1924, founded an organization for the development of rockets, and concurrently, a society for interplanetary travel. These organizations were attached to the then Military Air Academy and included a committee charged with the study of the military implications of these matters. In 1928, it was decided to publish a 12-volume encyclopedia dealing with rocketry and interplanetary problems. This encyclopedia has not yet been found in the Library of Congress. Also in 1928, the first experimental flights were scheduled. Nothing is known to have been published about the results.

c. About the same time, Tsiolkovski evinced a strong interest in circular, hyperbolic, and spherical airframes. The Germans were so impressed with this development that they initiated wind tunnel tests in the early thirties. These experiments influenced the development of some of their tail-less designs.

d. In the United States, a patent for a flying saucer with a circular fixed wing was taken out on 22 March 1931.

e. The saucer sightings in the U.S. tend to cluster around key development stations such as atomic plants, guided missile experimental areas, and Wright-Patterson Air Force Base. It must be remembered that the first sightings were made over Scandinavia, and in the U.S., over the Northwest. This would be in line with a hypothetical range extension from Soviet bases.

f. There is a Wringer report that a circular object somewhat resembling a flying saucer was sighted in the general vicinity of \_\_\_\_\_

g. The Russian magazine RND FIJET, on 12 October 1951, announced that the Soviet Union is planning to build a "moon rocket", with a weight

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SECURITY INFORMATION

of 1,000 tons, a length of 198 feet, and a total of 20 engines. Such a rocket would require a thrust of about 2,500 tons in order to be operational. Thus, these data are not in contradiction with our intelligence concerning a Soviet 125 ton thrust engine (20 times 125 equals 2500 tons). If on the other hand, 1,000 tons represent empty weight, the total weight would be about 8,000 tons, and thus be somewhat larger than the missile which, according to Dr. Von Braun, the German rocket scientist, would be required for the establishment of an orbit. If so, the required thrust would be about 18,000 tons. It would follow that the required engine would require a thrust of 800 tons.

h. While it is difficult to believe that the U.S. and its Allies would not have received information about a Soviet flying saucer program, it must be kept in mind 1) that information has not been screened as to possible component analysis, and 2)

---

It

is emphasized that the German Peenemunde program had reached advanced development with the A-9 missile which, with the A-10, was a two-stage development rocket with an anticipated range of 2100 miles, and a velocity of 9100 feet per second. Peenemunde had projected an A-11 missile (three stages with 1,700 tons base thrust) and an A-12, which was to be a satellite missile.

12. At present, in Europe, and to a far lesser extent, in America, a very vigorous scientific literature dealing with advanced flying techniques is developing. A great deal of theoretical work is devoted to the finding of new sources of energy. In this connection, it is well worth remembering that the world's only solar power institute is at Tashkent, USSR. This institute operates with a high degree of security, as do, incidentally, Russian efforts in the field of cosmic rays.

13. In the past, major contributions in the development of rockets have been made by Germans. Once again, in their rocket and interplanetary societies, the Germans are concerned with future guided missiles and advanced delivery systems as end products of studies involving research into orbital and inter-stellar devices. The European theoretical work is making very rapid progress, and is strongly reminiscent of the period before World War II, which culminated in the development of atomic power. Not the least significant aspect is that theories have arisen which challenge some of the accepted dogmas of modern physics, e.g., that velocity of light is the greatest speed which ever can be reached. Of greatest importance to the Air Force are the attempts to reformulate the theory of gravitation.

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SECURITY INFORMATION

14. The theoretical work discussed above has been organized in various European societies and is documented in special scientific magazines of high caliber. The pertinent societies in this field have been holding national and international congresses, and have initiated an international federation. It is interesting to note that the chief French organizer and promoter of the international rocket-interplanetary federation idea is a Russian born Frenchman, who, according to some reports, may be working closely with the Soviets. There are other cases, especially among British scientists, of crypto-Communists being active in this field. Indications are, therefore, that the Soviets may have established an arrangement which will permit them to obtain information, as well as to prevent thinking in this field. Such actions would be in accordance with the established Soviet technique of "legal" espionage.

15. Nothing in this argument is designed to brush over the improbability that the Russians have reached such a considerable lead over the U.S. In order to fly saucers over the U.S., the Soviets would have to be at least 20 years ahead of us. They would have obtained such superiority by keeping a large-scale development in complete isolation, even during the past war. While the Special Study Group feels that the above analysis has narrowed the problem, there is no solution yet and of course, the saucers still may prove to be natural phenomena. It is felt, however, that investigation along the suggested lines will contribute considerably to the knowledge of the long-range Soviet strategic missile program.

16. The above summary, extensive though it is, does not purport to present a complete or integrated picture. It is designed merely to suggest the complexity of the problem. The Special Study Group feels that at this stage its work could be greatly advanced if contacts could be made with members of those scientific circles in Europe which have and are making substantial contributions in the field of aeronautics.\*

17. Discussions with European scientists would be supplemented by first-hand talks with Bringer and ATEC personnel, as well as with Air Attaches and the British Joint Intelligence Bureau. Moreover,

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\*This idea was discussed with Col. Frank Dunn, Chief, Air Technical Intelligence Center, who agrees that such contacts would be extremely timely and useful. The Special Study Group also discussed the merit of such a proposal with Professor C.J. Pearce, ATEC's chief scientific advisor in Europe, during his recent visit to the U.S. Professor Pearce believes that a systematic survey of this entire field is imperative. He has stated that he would be able to secure the necessary contacts.

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SECURITY INFORMATION

attempts will be made to determine the status of reported European sightings. As a result, it may be possible to determine whether the present fact-finding saucer project, which is operating throughout the U.S., should be expanded to other countries.

CONCLUSIONS:

18. The work of the Special Study Group in the field of advanced delivery system has reached a point where further progress undoubtedly would be greatly increased by a carefully planned program of contacts in Europe.

RECOMMENDATIONS:

19. That Lt. Col. Sterling and Dr. Loring be authorized to travel to Western Europe for a period of approximately five weeks. Specific authority is requested to visit at least the following organizations:

Hqs. USAFE, Wiesbaden, Germany  
Air Section, USAF, Salzburg, Austria  
Allied Air Forces, Central Europe, Fontainebleau, France  
Commander Southern Forces, NATO, Naples, Italy  
Joint Intelligence Bureau, London, United Kingdom

COORDINATION:

AFCIN-X(SG), Ext. 76674 *ES*

AFCIN-3, Gen. Garland, Ext. 53842

AFCIN-X, Col. Kieling, Ext. 54738

*Garland*  
*Kieling*

## CHAPTER 11

COMMUNICATIONS INSTRUCTIONS REPORTING  
VITAL INTELLIGENCE SIGHTINGS (RCS - EXEMPT)

(Short Title - CIRVIS)

V-2-11

11.1 Subject and Purpose. This report provides for the peacetime reporting of intelligence sightings of vital importance to the security of the United States and Canada.

11.2 Submitted By. Any Air Force personnel.

11.3 Submitted To

a. Airborne reports. Any available US or Canadian military or civil air/ground communications facility. Facilities receiving CIRVIS reports will rapidly process and forward them as prescribed by JANAP 146 directives.

b. Postlanding reports. CINCNORAD, Ent AFB, Colorado, or Headquarters, Northern NORAD Region, North Bay, Ontario, whichever is the more convenient.

11.4 When Submitted. As soon as possible after an intelligence sighting requiring a CIRVIS report.

11.5 How Submitted

a. Classification. Normally unclassified but handled as information for official use only.

b. Method of Transmission. By the most rapid means available. Airborne reports will be made using the same procedures as those now established and in use by pilots for air traffic control. When contact by pilots cannot be established with any ground communications station, maximum effort shall be made to relay the CIRVIS reports via other aircraft with which communication is possible.

c. Precedence of Transmission

(1) Airborne Reports

(a) To avoid delays in rendering a CIRVIS report to a ground facility, the word CIRVIS will be spoken or transmitted three times preceding the call to preempt all other communications (except distress and urgency).

(b) Should instances occur when use of the above procedure fails to clear the frequency(ies) over all other communications in progress (except distress and urgency calls), the international urgency signal "XXX" transmitted three times, or "PAN" spoken three times will be employed.

(2) Ground relay of airborne reports or postlanding reports. Flash.

11.6 Report Indicator. CI

11.7 Specific Reporting Instructions

a. Air Force personnel will report by rapid communication procedures all unidentifiable, suspicious, or hostile land, aerospace, or seaborne traffic which, because of its nature, course, or actions, must be considered a threat to the security of the United States or Canada. Such reporting will serve to extend the early warning defense system for the United States and Canada.

b. The following types of CIRVIS reports will be submitted:

(1) The initial CIRVIS report: Issued while the pilot is airborne (or as warranted, upon landing) or by the land observer as soon as practicable. Additional CIRVIS reports will be made if situation requires it, and each one should refer to the initial report to permit identification with the original sighting.

(2) The CIRVIS cancellation report: Issued by the observer if a previously reported sighting is positively identified as friendly or has been erroneously reported.

(3) The CIRVIS postlanding report: Issued by the pilot when he lands, if he has made an airborne report. It must cite the airborne report(s) issued. If the landing is not made in Canadian or US territory, the report should be made to the nearest Canadian or US military or diplomatic representative. Postlanding reports should be addressed to CINCNORAD, Ent AFB, Colorado, or Headquarters, Northern NORAD Region, North Bay, Ontario, whichever is the more convenient.

(4) The CIRVIS evaluation report: Submitted by each addressee of the above CIRVIS reports. It will include negative or other information as warranted and will be submitted promptly to keep all message addressees fully informed during the evaluation phase. All investigative measures and evaluation processes instituted by the addressee must be consistent with existing procedures and reported according to JANAP 146. This will be Hq USAF responsibility when the CSAF is an addressee of a CIRVIS report.

c. The following specific sightings will be reported:

(1) While airborne and from land base observers

(a) Hostile or unidentified single aircraft or formations of aircraft which appear to be directed against the United States or Canada or their forces.

(b) Missiles.

(c) Unidentified flying objects.

(d) Hostile or unidentified submarines.

(e) Hostile or unidentified groups of military surface vessels.

(f) Individual surface vessels, submarines, or aircraft of unconventional design, engaged in suspicious activity or observed in a location or on a course which may be interpreted as constituting a threat to the United States, Canada, or their forces.

(g) Any unexplained or unusual activity which may indicate a possible attack against or through Canada or the United States, including the presence of any unidentified or other suspicious ground parties in the polar region or other remote or sparsely populated areas.

(2) Upon Landing

(a) Reports which for any reason could not be transmitted while airborne.

(b) Unlisted airfields or facilities, weather stations, or air navigation aids.

(c) Postlanding reports (to include photographs or film if pictures were taken).

d. Every effort should be made to substantiate vital intelligence sightings by taking as many photographs as possible. Undeveloped film or prints and negatives should be forwarded with a brief letter report and other identifying information to either the Director of Naval Intelligence, Department of the Navy, Washington, DC 20305, or Director of Naval Intelligence, Canadian Forces Headquarters, Ottawa 4, Ontario, as appropriate. Photos will be processed and one copy of each print, together with a roll of new film, will be returned to the individual.

e. The CIRVIS report is a narrative report. Training requirements and specific responsibilities are outlined in Annex A, this chapter.

Note: CIRVIS reporting procedures are also explained in Flight Information Publication, Section III.

11.8 Report Content

a. Airborne CIRVIS reports will be similar to routine aircraft position reports transmitted by either radiotelephone or radiotelegraph. The appropriate procedures to be employed will be those applicable to communications facilities utilized. The reports should contain the information detailed below, when appropriate, and in the order listed:

b. When reporting identifiable objects

(1) CIRVIS report.

(2) Identification of reporting aircraft or observer as appropriate.

(3) Object sighted. Give brief description of the sighting which should contain the following items as appropriate.

(a) Number of aircraft, vessels, missiles, submarines, etc.

(b) Category of object, general description, e.g., size, shape, type of propulsion, etc.



(4) The position of the object. This can be indicated by any of the following methods:

- (a) Latitude and longitude.
- (b) Over a radio fix.
- (c) True bearing and distance from a radio fix.
- (d) Over a well-known or well-defined geographic point.

(5) Date and time of sighting (GMT).

(6) Altitude of object.

(7) Direction of travel of object.

(8) Speed of object.

(9) Any observed identification, insignia, or other significant information. Every reasonable effort should be made to identify positively the object sighted.

c. When reporting unidentifiable objects

(1) CIRVIS report.

(2) Identification of reporting aircraft or observer as appropriate.

(3) Object sighted. Give brief description of the object which should contain the following items:

(a) Shape.

(b) Size compared to a known object (use one of the following terms: head of a pin, pea, dime, nickel, quarter, half dollar, silver dollar, baseball, grapefruit, or basketball) held in the hand at about arm's length.

(c) Color.

(d) Number.

(e) Formation, if more than one.

(f) Any discernible features or details.

(g) Trail or exhaust, including size of same compared to size of object.

(h) Sound. If heard, describe sound.

(i) Other pertinent or unusual features.

## (4) Description of course of object:

- (a) What first called the attention of observer(s) to the object.
- (b) Angle or elevation and azimuth of object when first observed.
- (c) Angle or elevation and azimuth of object upon disappearance.
- (d) Description of flightpath and maneuvers of object.
- (e) How did the object disappear (instantaneously to the north, etc.)?
- (f) How long was the object visible (be specific; 5 minutes, 1 hour, etc.)?

## (5) Manner of observation:

- (a) Use one of any combination of the following items: Ground-visual, ground-electronic, air-electronic. (If electronic, specify type of radar.)
- (b) Statement as to optical aids (telescopes, binoculars, etc.) used and description thereof.
- (c) If the sighting is made while airborne, give type of aircraft, identification number, altitude, heading, speed, and home station.

## (6) Time and date of sighting:

- (a) ZULU date/time group of sighting.
- (b) Light conditions (use one of the following terms: night, day, dawn, dusk).

(7) Location of observer(s): Exact latitude and longitude of each observer and/or geographical position. A position with reference to a known landmark also should be given in electrical reports, such as 2 miles north of Deeville, 3 miles southwest of Blue Lake. Typographical errors or garbling often result in electrically transmitted messages, making location plots difficult or impossible.

(8) Weather and winds--aloft conditions at the time and place of sightings:

- (a) Observer's(s') account of weather conditions.
- (b) Report from nearest AWS or US Weather Bureau office of wind direction and velocity in degrees and knots at surface, 6,000', 10,000', 16,000', 20,000', 30,000', 50,000', and 80,000' if possible.
- (c) Ceiling.

- (d) Visibility.
- (e) Amount of cloud cover.
- (f) Thunderstorms in area and quadrant in which located.
- (g) Temperature gradient.
- (9) Any other unusual activity or condition, meteorological, astronomical, or otherwise, which might account for the sighting.
- (10) Interception or identification action taken (such action may be taken whenever feasible, complying with existing air defense directives).
- (11) Location, approximate altitude, and general direction of flight of any air traffic or balloon releases in the area which could possibly account for the sighting.
- (12) Position title and comments of the preparing officer, including his preliminary analysis of the possible cause of the sighting(s).
- (13) Existence of physical evidence, such as materials and photographs.

11.9 Sample Report. Omitted.

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7. Author(s) L.M. Gindilis, D.A. Men'kov, I.G. Petrovskaya, Shternberg State Astronom. Inst., Moscow Engineering Physics Inst., Inst. of Space Research		11. Contract or Grant No. NASW-3199	
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12. Sponsoring Agency Name and Address National Aeronautics and Space Adminis- tration, Washington, D.C. 20546		15. Supplementary Notes  Translation of "Nablyudeniya anomal'nykh atmosferykh yavleniy v SSSR. Statisticheskii analiz. Rezul'taty obrabotki pervoy vyborki nablyudatel'nykh dannyykh," USSR Academy of Sciences Institute of Space Research, Report Pr 473, 1979, - pp. 1-74	
16. Abstract  A statistical analysis of information in 256 reports of ob- servations of anomalous atmospheric phenomena (UFO) in the USSR is presented. Certain statistical regularities of these phenomena are brought out, some characteristics of which are similar to those obtained in other countries. It is concluded that there is a type of phenomenon with stable statistical properties. The further development of methods of obtaining more reliable data and the expansion of the initial information file and deeper statistical analysis of some phenomenon parameters are discussed.			
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OBSERVATIONS OF ANOMALOUS ATMOSPHERIC PHENOMENA IN THE USSR:  
STATISTICAL ANALYSIS

L.M. Gindilis, D.A. Men'kov, I.G. Petrovskaya

Translation of "Nablyudeniya anomal'nykh atmosferynykh yavleniy  
v SSSR. Statisticheskiy analiz. Rezul'taty obrabotki pervoy vyborki  
nablyudatel'nykh dannyykh," USSR Academy of Sciences Institute of  
Space Research, Report Pr 473, 1979, pp. 1-74

A statistical analysis of information in 256 reports of observations of anomalous atmospheric phenomena (UFO) in the USSR is presented. Certain statistical regularities of these phenomena are brought out, some characteristics of which are similar to those obtained in other countries. It is concluded that there is a type of phenomenon with stable statistical properties. The further development of methods of obtaining more reliable data and the expansion of the initial information file and deeper statistical analysis of some phenomenon parameters are discussed.

## ANNOTATION

This paper presents a statistical analysis of information given in 256 reports of observations of anomalous atmospheric phenomena in the USSR.

The analysis permits certain statistical regularities of these phenomena to be brought out. Time characteristics and some other data are similar to the characteristics obtained by other investigators (in other countries). This makes it possible to draw a conclusion that there is a certain type of phenomenon which shows stable statistical properties.

It is premature to speak of the nature of these phenomena on the basis of the data obtained. The development of methods of obtaining more reliable data, expansion of the initial information file used and deepening of the statistical analysis of some phenomenon parameters are required.

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## PREFACE

The work is published by decision of the Section of General Physics and Astronomy, Presidium Academy of Sciences USSR.

Preparatory processing and formalization of the initial observational material was carried out by I.G. Petrovskaya (Institute of Space Research).

Statistical study of the material and classification and checking of the data were performed by D.A. Men'kov (Moscow Engineering Physics Institute).

General scientific editing of the work was performed by L.M. Gindilis (State Astronomical Institute im. Shternberg). He is the author of Sections 3.3 and 14 (discussion).



## TABLE OF CONTENTS

Introduction		
1.	General Characteristics of Initial Material	1
2.	Circumstances of Observation: Meteorological Conditions, Visibility of Celestial Objects	2
3.	Observers and Witnesses of Observations	3
	3.1 Number of Witnesses of Observations	3
	3.2 Observer Categories	4
	3.3 Distribution by Specialty	5
	3.4 Repeated Observations of Anomalous Phenomena by One Eyewitness	6
4.	Spatial Distribution of Events	6
5.	Time Distribution of Events	7
	5.1 Distribution of Events by Year and Month	7
	5.2 Distribution of Events by Day, 1967	8
	5.3 Distribution of Events by Time of Day	9
6.	Classification of Phenomena, Types of Objects	11
	6.1 Forming Phases and Transitions Between Them	14
	6.2 Object Type Statistics	15
	6.3 Simultaneous Observation of Several Objects	16
7.	Duration of Events	17
	7.1 Total Duration of Events Distributed by Duration	17
	7.2 Duration Distribution of Objects of Different Types	17
8.	Object Structure and Nature of Luminosity	18
	8.1 External Details	18
	8.2 "Internal" Details, Surface Structure of Objects	18
	8.3 Luminosity Characteristics	19
	8.3.1 Object Color	21
	8.3.2 Color Change	21
9.	Angular Dimensions of Objects	22
	9.1 Estimates of Angular Dimensions by Eyewitnesses	22
	9.2 Change of Angular Dimensions	23
10.	Characteristics of Motion of Objects	23
	10.1 Velocity and Acceleration	24
	10.2 Flight Path of Objects	24
	10.3 Flight Direction	25
11.	Estimates of Linear Quantities (Distance, Altitude, Size, Velocity)	27
12.	Associated Effects and Phenomena	28
13.	Dates with Large Number of Observations	29

14. Discussion	29
14.1 Reliability of Initial Observational Material	29
14.2 Observational Characteristics of Phenomena	32
14.3 Nature of Objects and Further Research	35
References	53

OBSERVATIONS OF ANOMALOUS ATMOSPHERIC PHENOMENA IN THE USSR:  
STATISTICAL ANALYSIS

Results of Processing First Sample of Observational Data

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Shternberg State Astronom. Inst., Moscow Engineering  
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Introduction

This analysis was performed on material of the first body of reports on observations of anomalous atmospheric and space phenomena in the USSR. <sup>1</sup> /3

For convenience in processing, the reports on the observations were formalized, by means of a code specially developed for this purpose. The formalized reports, printed on K-5 punch cards, form the initial body of the preliminary General Catalog (GK) of anomalous atmospheric and space phenomena. The reports used are one sample of the preliminary General Catalog. The statistical characteristics of this sample are considered below.

In this report, we use the terms "anomalous atmospheric and space phenomena" or "anomalous atmospheric phenomena." Sometimes, in the same sense, the abbreviated terms "anomalous phenomena" or "anomalous objects" are used in the text. We consider the previously used term UFO to be less adequate for such work, since it contains a definite interpretation of the phenomena observed. However, in a number of cases, for example, in references or in the discussion of other work, this term also is used in this report.

1. General Characteristics of Initial Material

The material contains 207 reports, in which 256 cases of observations of anomalous phenomena or objects are presented (these cases are assigned a number from the preliminary General Catalog, from 0001 to 0253 and from 0462 to 0464). They include:

Ground based observations	242 cases
Observations aboard aircraft	13 cases
Observations at sea aboard ship	1 case

Of them, 11-12 are cases of observations at close range. We classify cases in this category when, according to the estimate of the

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\*Numbers in the margin indicate pagination in the foreign text.

<sup>1</sup>Reports of this sample of observational data were collected and kindly presented by candidate in physical and mathematical sciences F. Yu. Zigel.

observer, the distance to the object is on the order of 100 or several hundred meters (in this case, an error of several times that is possible, but the order of magnitude evidently remains reliable), or cases when the distance is not indicated, but the observer distinguishes parts with the unaided eye, feels some effect, observes a dark object at night, etc. In the case of observations aboard an aircraft, we classify observations in the close category, at distances on the order of 10 km, as well as in the case of maneuvers of the object about the aircraft or the presence of effects.

The overwhelming majority of observations (97%) are conventional observations by eye. In 9 cases, optical instruments were used (binoculars in 4 cases, spyglass in 4 and telescope in 1). There are two reports of radar recording. In one case (GC-0218, Apraksin), there was a simultaneous visual observation and radar recording.

The reports contain word descriptions of the phenomenon observed, with indication of the observation circumstances. There are drawings in 50 cases, and photographs were made for 3 cases.

For 16 cases, there are references to the presence of official documentation in the initial material (official letter, 2 cases; official telegram, 8 cases; official report, 5 cases; record in log, 1).

The authors of the majority of the reports indicate their addresses, home or office telephone, and they report the place of work and position occupied.

## 2. Circumstances of Observation: Meteorological Conditions, Visibility of Celestial Objects

In analysis of specific cases, knowledge of the meteorological conditions is of great importance. Unfortunately, these data are completely lacking in the majority of the reports. For 83 cases of observation of 256 (32%), information on cloud cover is reported. These data are presented in Table 1.

15

TABLE 1. CLOUD COVER DATA

а Облачность	б Число случаев	в % от общего числа случаев
д Отсутствует/ясно/	61	24
е Штатные облачности	21	8
в том числе:		
ф редкие облака	9	
г частые облака	1	
и сплошная облачность	1	
з характер облачности не указан	7	
ж Данные отсутствуют	174	68
к Итого:	256	100

Key to Table 1:

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| a. Cloud cover                    | g. partly cloudy                  |
| b. Number of cases                | h. solid cloud cover              |
| c. % of total number of cases     | i. nature of clouds not indicated |
| d. Absent (clear)                 | j. No data                        |
| e. Cloud cover present, including | k. Total                          |
| f. scattered clouds               |                                   |

There also is interest in the visibility of celestial objects during observations.

The sun was observed in 28 cases, including 4 at sunrise and 15 at sunset; the moon was observed in 19 cases; the stars were observed in 38 cases.

In 177 cases, nothing is reported on the visibility of celestial objects.

### 3. Observers and Witnesses of Observations

We call the persons who carried out the observations observers. In the overwhelming majority of cases (214, i.e., 86%), they are the authors of the reports. In some cases, the report was written in the words of the observer by another person or from documents or printed material (26 cases, 10%). In 8 cases (3%), it is not clear whether or not the report was written by the observer himself. /5

We call both observers and persons, of whom it is known from the report that they also were present and observed the phenomenon described, witnesses (or eyewitnesses).

#### 3.1. Number of Witnesses of Observations

The number of witnesses is characterized by the following table.

TABLE 2. NUMBER OF WITNESSES

a Число свидетелей	b Число случаев наблюдения	c % от общего числа случаев
1	37	34
2	39	13
3	13	5
4	9	3,5
d "несколько"	70	27,5
e массовое наблюдение	35	15

- Key:
- a. Number of witnesses
  - b. Number of observations
  - c. % of total number of cases
  - d. "A few"
  - e. Mass observation

There are 1-7 solitary observations. There is more than one witness in 66% of the cases. This is higher than from the foreign data [1]. The percentage of "mass" observations is significant (15%). We classify cases in this category, when large groups of people were eyewitnesses of the event: audiences at an open air motion picture theater, residents of a settlement, many people in a city, etc. This is tens, hundreds and, sometimes, even thousands of persons.

### 3.2. Observer Categories

The observer categories by place of residence and nature of activity are presented in Table 3. The total number of cases (see Table 3) is 259, since 3 cases (GC-208, GC-126 and GC-259) were counted twice, as the eyewitnesses were classified in two different categories. The percentage is of the total number of cases, which is 256.

TABLE 3. OBSERVER CATEGORIES

а Категория	б Число случаев наблюдения	в % от общего числа 256 случаев
д Местные жители	147	58
е Приезжие	57	22
в том числе:		
ф отдыхающие	32	
г командированные	7	
h в пути	28	11
в том числе:		
и в турпоходе	4	
j в экспедиции	3	
к в полете	9	
л На станции наблюдения	11	4
из них: на метеостанциях	6	
м на астрономич.обсерваториях	4	
о Военнослужащие при выполнении служебных обязанностей	5	2
р Неизвестно	11	4
а Итого:	259	101

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OF 2000 PAGES

- Key:
- |                            |   |
|----------------------------|---|
| a. Category                | k. In flight                                    |
| b. Number of observations  | l. At observation stations                      |
| c. % of total 256 cases    | m. Of them, at meteorological stations          |
| d. Local inhabitants       | n. At astronomical observatories                |
| e. Nonresidents, including | o. Servicemen in performance of official duties |
| f. Vacationers             | p. Unknown                                      |
| g. Under orders            | q. Total  |
| h. Travelling, including   |   |
| i. On tour                 |   |
| j. On expedition           |   |

### 3.3. Distribution by Specialty

The distribution of the number of cases by observer specialty is presented in Table 4. Of 256 observations, the specialty of the eyewitness is not indicated in 134 cases. In 122 cases (48%), the specialty is given for 130 eyewitnesses who participated in the observations. The distribution of these eyewitnesses by specialty is as follows (see Table 4).

17

TABLE 4. OBSERVER DISTRIBUTION BY SPECIALTY

a Специальность наблюдателя	Число очевидцев b	% от общ. числа свидетелей с указ. спец. специальн. c
d Научные сотрудники	33	25
e в том числе: астрономы	10	7,5
f метеорологи	6	4,5
g геологи и геофизики	5	4,5
h прочие специальности	5	4
i не указано	6	4,5
j Инженеры	23	17,5
k Пилоты	14	11
l Лаборанты, техники	9	7
m Преподаватели	9	7
n Студенты	8	6
o Учащиеся	8	6
p Военнослужащие	8	6
q Врачи	5	4
r Работники культуры	5	4
s Рабочие	4	3
t Административные работники	2	1,5
u Работники сферы обслуживания	1	1
v Морские	1	1
w Итого:	130	100

- Key:
- a. Observer specialty
  - b. Number of eyewitnesses
  - c. % of total number of eyewitnesses with specialty indicated
  - d. Scientific workers, including:
  - e. Astronomers
  - f. Meteorologists
  - g. Geologists and geophysicists
  - h. Other specialties
  - i. Not indicated
  - j. Engineers
  - k. Pilots
  - l. Lab workers, technicians
  - m. Teachers
  - n. Undergraduates
  - o. Students
  - p. Servicemen
  - q. Physicians
  - r. Cultural workers
  - s. Workers
  - t. Administrative workers
  - u. Maintenance workers
  - v. Seamen
  - w. Total

The substantial percentage of observers who have adequate qualifications attracts attention: scientific workers, engineers, pilots (52%). Contrary to the widespread fallacy, there is a highly significant percentage of astronomers among the observers (7.5% of the total number of eyewitnesses with this speciality and 30% of the number of scientific workers).

/8

With account taken of the relative fraction of persons of various specialities in the total population of the country, a coefficient can be presented, which characterizes the activities of various occupational groups:

/9

$$k = \gamma \frac{n_t}{N_t}$$

where  $n_t$  is the number of observers of a given occupation,  $N_t$  is the total number of persons in this occupation, and  $\gamma$  is a normalizing factor. The values of  $N_t$  for different occupational groups are taken from the results of the 1970 All-Union Census [2]. To determine the activity coefficient, not the absolute value of  $N_t$ , but the ratio between these values plays a part. We used 1970 census data, since this is the closest census to 1967, which makes the basic contribution to the sample under consideration. Data on the number of students and teachers were taken from the Great Soviet Encyclopedia Yearbook [3]. Data on the number of astronomers were taken from A.S. Sharov (they were obtained from the card index of the Astronomical Council, USSR Academy of Sciences and other materials). The results are presented in Table 5 (see p. 7).

The table highly graphically illustrates the high activity coefficient of the scientific colleagues, especially astronomers. This points out the inaccuracy of the widespread opinion that inexperienced persons basically predominate among the observers, and that there supposedly are no reports from specialists. J.A. Hynek noticed the inaccuracy of this point of view as early as 1966 [4].

### 3.4. Repeated Observations of Anomalous Phenomena by One Eyewitness

The overwhelming number of observers saw anomalous phenomena once. However, there are witnesses, who saw them several times over various intervals of time, including: 16 eyewitnesses observed twice, 6 eyewitnesses observed 3 times and 2 eyewitnesses, more than 3 times.

/10

### 4. Spatial Distribution of Events

The points at which the events were observed were plotted on maps (Fig. 1, 2). On the whole, they cover the entire area of the Soviet Union. However, "increased activity" is observed in specific regions in separate periods. Thus, in 1967, there was "increased activity" in the Northern Caucasus, Donbass and the Rostov Region. In the Asiatic areas of the Union (not counting the Caucasus), observations in the 1957-1966 period predominant. For 1960, a third of the observations fall in the European portion of the Union and two thirds, in the Asiatic. Of course, these regularities cannot be considered solidly established (there are too few statistics). However, some tendency towards a change in the areas of "activity" over time evidently is noted. The spatial distribution of events obtained from other samples is additional confirmation of this conclusion.

/11



TABLE 5. ACTIVITY COEFFICIENT OF VARIOUS OCCUPATIONAL GROUPS OF OBSERVERS

Профессиональная группа а	Включенность Группы млн.чел	Число наблюдателей для этой группы с	Коэффициент активности d
Всё население в возрасте более 9 лет е	108,5	100	1,0
Научные работники в том числе: г астрономы	0,455	33	110
Инженеры h	0,002	10	7000
Врачи i	2,48	23	14
Техники и лаборанты j	0,556	6	18
Работники культуры k	1,71	9	6
Преподаватели вузов и школ l	1,23	8	6
Студенты m	2,84	9	4
Работники степ осмунды n	4,3	2	2
Учащиеся o	1,6	1	0,9
Рабочие p	49,0	8	0,2
	68,8	4	0,1

- Key:
- |  |  |
|--|--|
| a. Occupational group                    | i. Physicians  |
| b. Group population<br>(million persons) | j. Technicians and lab<br>workers                      |
| c. Number of observers<br>in this group  | k. Cultural workers                                    |
| d. Activity coefficient                  | l. Higher education institution<br>and school teachers |
| e. Total population over<br>9 years old  | m. Undergraduates                                      |
| f. Scientific workers,<br>including:     | n. Maintenance workers                                 |
| g. Astronomers                           | o. Students  |
| h. Engineers                             | p. Workers   |

A two dimensional distribution of the number of cases by latitude and longitude is presented in Fig. 3, a unidimensional distribution of the number of cases by longitude, in Fig. 4 and the latitude distribution, in Fig. 5. A longitude maximum at longitude 35-45° E. is distinctly distinguished. The latitude distribution is more uniform. However, two maxima are found here, at latitudes 44-46° and 48-50°.

## 5. Time Distribution of Events

### 5.1. Distribution of Events by Year and Month

The sample under study covers cases of observations of anomalous objects from 1923 to 1974, including:

before 1957	14 cases	or	5.5%,
1957-1966	36 cases	or	14%,
1967	194 cases	or	76%,
1968-1974	12 cases	or	4.5%.

More detailed data on the annual distribution are presented in Fig. 6. These data only very indirectly reflect the actual phenomenon activity over time. Thus, the sharp increase in number of reports in 1967 evidently is associated with a Central Television appearance, in which the UFO phenomenon was discussed and reporting observations of similar phenomena was suggested. More than that, to judge by foreign data [5, 6], some increase in UFO activity actually was noted. Similarly, a sharp drop in the number of reports after 1968 evidently is associated with critical statements in the central press (Pravda, 29 Feb 1968), in which the UFO problem was classified as unscientific. /12

In our opinion, the observation of anomalous objects before 1957 is most significant. Together with the corresponding foreign data, this indicates that, at least, not all cases of observation of such objects can be associated with normal (known) technical objects of space experiments.

The distribution of observations by month is presented in Fig. 7. The histograms were plotted with and without allowance for possible duplication, as a result of obtaining several independent reports of the same phenomenon (see Section 5.2). As is evident, the effect of duplication hardly distorts the distribution pattern. The "increased activity" in the summer-fall period may be a result of the fact that this time is most favorable for observations. However, for the 1967 curve, the small number of cases of observation in June, as well as the clear spring-fall asymmetry, are noted. These features of the distribution are repeated over the entire sample, since the overwhelming number of cases in this sample is for 1967.

The distribution obtained for other years, without 1967, is very much more symmetrical (Fig. 8a).

## 5.2. Distribution of Events by Day, 1967

The distribution of events by day in 1967 is presented in Fig. 9. Of 70 days with a given date, more than 1 event per day were observed on 24 days. Independent observations of events, made by different people in different places (in the majority of cases, at different geographical points) are kept in mind. For the 70 days, a total of 157 events were observed (2.2 events per day, on the average). Data on the number of observations (events) per day are presented in Table 6. /13

Thus, of 157 events, 111 events (or 71%) concern cases when more than one event per day was observed. For days with a precisely indicated date, the corresponding numbers are 82 events of 117 (or 70%).

In a number of cases, the events of one date were observed at approximately the same time, at points no more than a few hundred kilometers away from each other. This permits it to be assumed that we are dealing with independent observations of the same object or phenomenon.

TABLE 6. DISTRIBUTION OF EVENTS BY DAY OF 1967

Число наблюдений /событий/ в день	Все случаи наблюдений, включая случаи с приблизительно указанной датой		Случаи наблюдений с точно указанной датой	
	число дней	число событий	число дней	число событий
I	46	46	35	35
2	7	14	5	10
3	5	15	4	12
4	4	15	2	8
5	2	10	3	15
6	1	6	-	-
7	1	7	1	7
9	-	-	1	9
10	2	20	1	10
11	1	11	1	11
12	1	12	-	-

f Всего: 70 157 53 117

Key: a. Number of observations (events) per day  
 b. All observations, including cases with date approx. indicated  
 c. Observations with precisely indicated date  
 d. Number of days  
 e. Number of events  
 f. Total

In this case, counting the data of all reports of observations can introduce appreciable distortions in the resulting statistical distribution, because of duplication. Since, from the available material, it is impossible to precisely indicate how many objects were observed on each specific day without additional analysis, in this study, we will present both the statistical distribution of all reports without allowance for duplication, and distributions "corrected" by allowance for duplication. It was assumed in this correction that all observations which coincide by date and nearly in time concern one object. Of course, this is a dominating proposal. Some of such "coincident" observations may concern different objects. Therefore, it can be stated that the actual distribution will lie within the limits bounded by the curves without and with duplication taken into account. The method of accounting for duplication for each specific distribution is stipulated separately. /14

The number of cases, according to the preliminary General Catalog, for which the duplication effect is taken into account, is presented on p. 10.

### 5.3. Distribution of Events by Time of Day

In the majority of cases (207 of 256, i.e., 81%), the eyewitnesses report the time of observation of the phenomena. Histograms of the distribution of number of cases of observations as a function of /15

TABLE 7. NUMBER OF CASES FOR WHICH DUPLICATION EFFECT IS TAKEN INTO ACCOUNT.

Дата наблюдения a	Номера случаев по предварительному Общему каталогу b
19.04.1967	0201, 0202, 0203, 0225, 0231
27.05.1967	0119, 0121, 0123, 0124
27.07.1967	0010, 0012, 0013, 0014, 0015, 0104, 0221, 0222, 0224, 0226, 0229
12.07.1967	0204, 0205
19.07.1967	0127, 0178
27.07.1967	0016, 0035, 0129
31.07.1967	0128, 0227
03.08.1967	0038, 0039, 0100, 0107, 0223
19.09.1967	0053, 0054, 0055, 0057, 0058, 0059, 0060, 0061, 0062, 0053, 0054
13.10.1967	0191, 0192, 0193
18.10.1967	0022, 0075, 0076, 0077, 0078, 0079, 0080, 0081, 0082, 0106
28.10.1967	0003, 0056, 0058, 0059
03.11.1967	0213, 0462
14.11.1967	0199, 0236
03.12.1967	0212, 0214, 0215, 0216, 0217, 0463, 0464
18.12.1967	0246, 0247, 0248

Key: a. Observation date  
b. Preliminary General Catalog case number

local legal and mean solar time are presented in Fig. 10. We understand local legal time to be the time officially adopted at a given place, the time by which the institutions operate and the population lives. It either coincides with the time belt or it differs from it by a whole number of hours. In the majority of cases, observers indicate local legal time. To change from it to mean solar time, we used the Census of Territories, in which the actual calculated time differs from the established time.

Duplication was taken into account for the reports indicated in Table 7. In this case, for all the "coincident" observations, the time was calculated once. As is evident from Fig. 10, allowance for duplication does not change the nature of the distribution.

The observation maximum occurs in the evening hours, around 9 p.m. Besides, a slight secondary maximum is noted in the morning hours, at approximately 7 a.m.

A comparison of Soviet and foreign data is shown in Fig. 11. The latter were taken from [1]. The normalized number of cases curves, the areas under all the curves, were the same. As can be seen, the nature of the distribution for different countries is similar, as a whole. The distinctly expressed maximum in the evening hours is persistently retained. For the Soviet observations, this maximum is sharper. Allowance for duplication permits the maximum to be reduced somewhat but, nevertheless, it remains higher than that obtained from the foreign data. This evidently is a real property of the sample under consideration.

According to Vallee and Poher [1], the observed curve is a result of the superposition of two effects: the actual distribution of the phenomena and the distribution of the daily occupations of the population, the time during which the working population is outside the house. After reduction of this effect, the distribution maximum is shifted to the hours after midnight, approximately 3 hours after midnight, and the total number of recorded cases should be increased 14 times [1].

The time of day distribution, separately for different seasons of the year, is presented in Fig. 12. The shift of the maximum in the winter period to earlier hours evidently is associated with the earlier twilight period. It is desirable to study the dependence on the time of twilight in greater detail. We note that, in winter, an appreciable fraction of the observations falls in the period of the day, when the working population is outside the house. Consequently, the reduction used by Vallee and Poher [1] is not completely unambiguous. Apparently, the duration of the light and dark times of day must also be taken into account, in addition to the occupation of the population.

The distribution of number of observations as a function of local star time at the observation point is presented in Fig. 13. For the distribution obtained over the entire sample (Fig. 13a), together with the principal maximum at 6-7 p.m., a secondary maximum is quite distinctly found, which is shifted by 6 hours relative to the first, and which occurs at noon-1 p.m. star time. Evidently, these characteristics of the distribution are peculiar basically to 1967, which makes the most significant contribution to the sample under discussion. For the remaining years (except 1967), the distribution is more uniform (Fig. 13b). It should be kept in mind that the statistics of these years are poor. /17

The distribution of the number of cases as a function of universal time is presented in Fig. 14.

## 6. Classification of Phenomena, Types of Objects

We used the following properties as characteristics of the types of objects: definition, transparency and shape. All the objects can be divided into three types by the first property: cloud like objects with indistinct, blurred edges; objects with distinctly outlined edges ("body"), and intermediate type objects. This type is used, when it is difficult to assign the observed object to one of the other two types, for example, when part of the outline is distinct and part is blurred.

Three types of objects also are introduced, with respect to transparency: opaque, transparent and translucent.

The observed shapes of the anomalous objects are extremely diverse. This can be explained, either by the diversity of the phenomenon itself, or by the fact that, here, we are dealing with phenomena of various natures. It is possible that both factors are valid. Besides, it must be kept in mind that the same object, observed at different angles of approach, can appear and be classified differently. Finally, the psychological factors must be taken into account. Upon unexpectedly observing a phenomenon which is unusual to them and frequently complicated, eyewitnesses perceive it differently and, in writing reports, they introduce additional distortions, since it frequently is very difficult to transmit their impressions exactly. /18

The classification of the shapes of the objects is presented in Table 8. Of course, this classification is arbitrary. The shape designations adopted in it were taken from the eyewitness descriptions (as they are designated in the reports). In this case, the differences between certain types of shapes are extremely arbitrary. For example, a flat round disk cannot always be distinguished from a spherical object at great distance, or a disk visible from the edge from an oval object. The difference between an oval body and a slightly deformed (oblate) sphere, as well as the difference between an elongated oval and a "cucumber" or "cigar," is just as arbitrary. The following basic types of objects evidently can be distinguished:

star shaped objects, objects of small angular dimensions (beyond the limits of resolution of the human eye); in this meaning, a "star with appreciable volume" obviously means an object, the angular dimensions of which are at the limit of resolution; sometimes, star shaped objects are successfully resolved by telescope or binocular observations; in this case, they can have the most diverse shapes;

spherical bodies (including oblate spheres or not very elongated ovals); since they are perceived in volume, it can be thought that these are comparatively close objects;

discoid objects;

oblong objects (highly elongated ovals, "cucumbers," "cigars," "cylinders," "bars");

crescent shaped objects; by shape, angular dimensions and brightness, they are similar to the moon in the phases preceding the first quarter; they usually move quite rapidly through the sky; in a number of cases, they have been observed simultaneously with the real moon; regular ("bicorn") and "single horn" crescents, of a shape similar to that of an inverted comma, are distinguished; they frequently are accompanied by one or more star like objects; generally, this is a quite rare type of object; however, in the summer of 1967, they were observed quite frequently over the southern part of European USSR; therefore, these objects represent an appreciable fraction of the study sample (see Table 8); /19

TABLE 5. SHAPE DISTRIBUTION OF OBJECTS

форма объектов a	b число объектов	
	без учета дубли-рования c	с учетом дубли-рования d
Звездообразные объекты e	97 /21%/	78 /19%/
из них: f		
звезда g	85	66
h "звезда" с выемкой в центре	12	12
Сферические тела i	47 /10%/	44 /11%/
из них: f		
шар правильный j	28	23
шар деформированный k	6	6
Круглые тела, диски: l	63 /14,5%/	65 /16,5%/
из них: f		
диск, выемкой с ребра m	7	7
диск круглый /фронтальный/	46	46
Серповидные объекты o	109 /24,5%/	98 /22,5%/
из них: f		
серп симметричный p	72	61
серп несимметричный, "сапата"	18	16
Продолговатые объекты r	31 /7%/	31 /7,5%/
в том числе: f		
овальное тело s	19	19
цифры выгнутый овал: t / "огора", "огурец" /	4	4
Объекты правильной u "эвклидовой" формы	32 /7%/	30 /7,5%/
из них: f		
треугольник v	4	3
прямоугольник w	4	4
полоса x	7	7
кольцо y	6	6
купол z	3	3
полусфера aa	2	1
Объекты неправильной формы bb	30 /6,5%/	30 /7%/
из них: f		
пятно неправильное cc	7	7
палочкообразный объект dd	6	6
неправильный многоугольник ee	4	4
"пятна" ff	1	1

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TABLE 3. Objects

Форма объектов a	Число объектов	
	без учета дублиров. c	с учетом дублиров. d
Объекты непрерывно меняющейся формы gg	2 /0,5%/	2 /0,5%/
Форму определить затруднительно hh	12 /2,5%/	12 /3%/
Форма не указана ii	31 /6,5%/	31 /7,7%/
jj Итого:	457 /100%/	416 /100%/

Key:

a. Object shape	t. Highly elongated oval ("cigar," "cucumber")
b. Number of objects	u. Objects of regular "exotic" shape
c. Duplication not allowed for	v. Triangle
d. Duplication allowed for	w. Rectangle
e. Starlike objects	x. Strip
f. Of them:	y. Ring
g. Stars	z. Dome
h. "Stars" of noticeable volume	aa. Hemisphere
i. Spherical bodies	bb. Objects of irregular shape
j. Regular sphere	cc. Irregular spot
k. Deformed sphere	dd. Cometoid object
l. Round bodies, discs	ee. Irregular polygon
m. Discs with apparent edge	ff. "Dumbbell"
n. Round discs (frontal)	gg. Objects of continuously changing shape
o. Crescent shaped objects	hh. Difficult to determine shape
p. Symmetrical crescent	ii. Shape not indicated
q. Asymmetrical crescent, "comma"	jj. Total
r. Elongated objects	
s. Oval body	

objects of a regular "exotic" shape (triangle, square, circle, etc.);

objects of irregular shapes;

objects of continuously changing shape.

It should be noted that only the basic shape of the object is taken into account in this classification. Secondary details, for example, the presence of a luminous tail or other structural features, are not taken into account at all. These characteristics will be considered separately (in Section 8).

### 6.1. Forming Phases and Transitions Between Them

In the analysis of shape, the following three types of phenomena must be distinguished:

a. one or more objects of constant shape is observed;

b. an object or several objects of continuously changing shape is observed;



c. one or more objects of stable shape is observed, a change of shape then occurs, as a result of which another objects or group of objects, also of stable shape, is observed. These changes include: change of shape of the object (transition from one shape to another); separation of one object from another; the connection of one object to another; "extinction" of a luminous object; gradual dissipation of an object; origination of a new object, etc. In all cases, when such changes occur, we speak of several phases of forming. In each phase, the objects have a stable shape. Any change means a transition to the next phase. Phases of the phenomenon can be distinguished by other characteristics, for example, by a change in the characteristics of motion. In order to emphasize that the matter concerns changes in shape, we call the corresponding phases "forming phases." /20

In the majority of cases (77.5%), the eyewitnesses observed one forming phase. Two phases were observed in 29 cases, 11%, 3 phases in 20 cases, 8%, and more than 3 phases in 9 cases, 3.5%. Changes of forming phases were noted in a total of 58 cases of 256 (22.5%). Here, 149 separate changes (or transitions), which happened to the objects, were observed. They included:

transition from one object shape to another	51 or 39%
extinction of one object	33 or 22%
dissipation of one object	17 or 11%
origination of a new object	29 or 20%
separation of one object from another	17 or 11%
connection of one object to another	1 or approx. 1%
division of an object	1 or approx. 1%

## 6.2. Object Type Statistics

The presence of several forming phases introduces some uncertainty into the statistics, since the question arises, as to how many times an object of one type, observed in different phases, should be taken into account. We took such objects into account one time.

Allowance for duplication (Section 5.2) was made in the following manner. For "coincident" observations (Table 7), objects, for which all the type characteristics were assumed to be the same, were taken into account only once. Objects, of which even one characteristic does not coincide, were considered different, and each was taken into account independently. For example, if a crescent shaped object was observed at the same time at different points, it was counted once; if a spherical object was observed at the same time at other points, it was counted separately. Questions of change in perspective in observations from different points were not taken into consideration here. This requires special detailed analysis, applicable to each specific case. /21

With these remarks taken into account, the statistics are as follows. In 256 cases of observation, objects were recorded:

	No allowance for duplication	Allowance for duplication
Total	457	416
Of them:		
Cloudlike form	38 /107%	33 /16,52%
Objects with distinct edge ("body")	352 /107%	318 /76%
Intermediate type objects	7 /2%	7 /2%
Type difficult to determine	24 /5%	28 /5,52%
By nature of transparency:		
Opaque	451 /94%	397 /94%
Transparent and translucent	11 /2,02%	11 /2,64%
Type difficult to determine	15 /3,52%	14 /3,37%

The shape distribution of the objects is presented in Table 8.

### 6.3. Simultaneous Observation of Several Objects

One object was observed in the majority of cases. However, in approximately one third of the cases, several objects were observed simultaneously, including:

423

	without allowance for duplication	with allowance for duplication
two objects	62 cases	45 cases
three objects	24	22
four objects	6	6
more than four objects	2	2
Total	94 cases	75 cases (of 256)

In a number of cases, there was observation of several objects, not simultaneously, but in succession (in different phases of the phenomenon).

For those cases, in which more than one object was observed, in half the cases (47 of 94), association of objects of diverse shapes with starlike objects was observed. Crescent shaped objects were associated with them most frequently: 42 cases of 47, which is 89% of all cases of association with starlike objects. As to all cases of observation of crescent shaped objects, we have:

	without allowance for duplication	with allowance for duplication
total number of objects	109	93
number of objects connected with starlike objects	42	31

	without allowance for duplication	with allowance for duplication
%	38	33

Thus, crescent shaped objects are associated with starlike objects /24  
in approximately one third of the cases.

## 7. Duration of Events

### 7.1. Total Duration of Events Distributed by Duration

We will call the time interval between the start and end of an observation the duration of the event. In the majority of cases, the duration of the event is less than the duration of the phenomenon.

In 146 cases of the 256 (57%), how the observation began was indicated. In 42 cases, the start of the observation coincides with the start of the phenomenon (of formation of the object). In 104 cases, the start of the phenomenon preceded the start of the observation.

In 141 cases (55%), the end of the observation is indicated. In 47 cases, it ended at the time of the end of the phenomenon. In 14 cases, the observation ended before the end of the phenomenon (people were engaged in other matters and stopped the observation). In 57 cases, the object moved away as long as it was seen. In 23 cases, the object was hidden behind an obstacle (or beyond the horizon).

The duration of the observations of anomalous phenomena was indicated in 177 cases. In 13 of them, the duration of the event was defined approximately ("a few seconds," "a few minutes," "a few tens of minutes"). In 164 cases, numerical values of the duration were reported. In some of them, it was reported for only one phase of the phenomenon. In 144 cases, the duration concerned the entire phenomenon. We call it the total duration of the event. In 14 cases of them, the starting and ending of the observations coincide with the start and end of the phenomenon. In these cases, the total duration of the event coincides /25  
with the duration of the phenomenon itself. In the remaining cases, it can be considered a lower limit of the duration of the phenomenon.

The duration distribution of the number of observations (for the total duration of the event) is presented in Fig. 15. The distribution maximum is in the 1-4 minute interval.

A comparison with foreign data (from [1]) is presented in Fig. 16. The unquestionable similarity for different countries can be seen. This indicates generality of the observed phenomenon.

### 7.2. Duration Distribution of Objects of Different Types

The duration distribution of events for objects of different types is presented in Fig. 17. The nature of the distribution differs for different objects. Spherical shape objects and discs are distinguished by a more uniform distribution. For crescent shaped objects,

together with the principal maximum (which occurred at a duration of 1-4 min), a secondary maximum is distinguished, with a duration on the order of a few seconds. Objects of irregular shape are observed a longer time. Among them, a highly noticeable fraction of the events last on the order of one hour. In this respect, the distribution of objects of regular "exotic" shapes (triangular, square, etc.) is particularly characteristic. Of course, the features indicated cannot be considered solidly established. There are too few statistics for separate types of objects. However, it can be thought that the predominance of longer events, which is associated with observations of objects of irregular and, especially, regular "exotic" shapes, apparently is completely real.

## 8. Object Structure and Nature of Luminosity

Besides the general shape, anomalous objects frequently are characterized by diverse external and internal details (surface structure), as well as luminosity of a frequently extremely complex nature. The characteristics of the objects are presented below.

/26

### 8.1. External Details

In the 256 cases of observation of anomalous objects considered, a total of 457 different objects has been described (we do not allow for duplication). For 264 objects, the reports contained no information on external details. It can be thought that, in these cases, either they were lacking, or they were not expressed very distinctly. The presence or absence of external details was noted in 129 cases (for 193 objects). In this case, in 17 cases (for 25 objects), the eyewitnesses noted the absence of any external details whatever. For the remaining 168 objects in the reports, various external details were described. These data are summarized in Table 9. For 9 objects of 168, two details were noted. The corresponding objects were taken into account twice in the table. Therefore, the total number of objects in the second column of Table 9 is 177. The percentage is of the total number of objects, 168.

### 8.2. "Internal" Details, Surface Structure of Objects

In the reports of 71 cases of observations (28% of 256 cases), there is an indication of the presence or absence of surface structure of the objects. Here, it was noted in 12 cases (for 20 objects) that the surface of the object was uniform. The presence of visible structure or surface irregularities was noted for 82 objects (18% of 457 objects). For 355 objects, there was no indication of surface structure. In these cases, it is possible that "internal" details are lacking (uniform structure), or they were faint and poorly distinguishable in visual observations. Besides, it must be considered that the observers do not always concentrate attention on these details.

Data on the surface structure and "internal" details of the objects are presented in Table 10. Two characteristics of nonuniformity are noted for three objects. These objects were counted twice in the table.

TABLE 9. EXTERNAL DETAILS

Описание детали a	Число объектов b	% от общего числа объектов с внеш. деталями c
Хвост d	71	42
в том числе: e		
темный хвост, темный след	9	
свешивающийся хвост, распадающийся	55	
форма g		
Искры h	37	22
1 Непараллельные потоки света /лучи, световые дуги, световое облако, конус света и т.п./	30	15
Пламя j	14	8
Свечение вокруг объекта k /корона, сияние и т.п./	10	6
Оболочки разной формы l	12	7
m Итого:	177	100

- Key:
- a. Description of detail
  - b. Number of objects with external details
  - c. % of total number of objects with external details
  - d. Tail
  - e. Including:
  - f. Dark tail, dark track
  - g. Shining tails of various shapes
  - h. Sparks
  - i. Directed light fluxes (beams, luminous arcs, light column, light cone, etc.)
  - j. Flame
  - k. Glow around object (corona, halo, etc.)
  - l. Shells of various shapes
  - m. Total

### 8.3. Luminosity Characteristics

There are indications of the nature of the luminosity in 240 cases of observations (94% of 256 cases). In 16 cases (for 36 objects), there are no indications of illumination, or its characteristics are vague. The luminosity of 421 objects was characterized in some manner by the observers. Data on the qualitative nature of the luminosity are presented in Table 11. /28

It is difficult to determine the nature of luminosity against the dark sky background. Special analysis is required for this. It can be thought that, in the majority of cases, we are concerned with the intrinsic luminosity of the objects. In the opinion of the observers, the luminosity of 4 objects was associated with the reflection of sunlight.

The brightness was estimated by the observers (basically qualitatively) for 183 objects. The data are summarized in Table 12.

TABLE 10. "INTERNAL" DETAILS, SURFACE STRUCTURE OF OBJECTS

Характер неоднородности : а	число объектов : b	% от 82 объектов с не- однородной поверхн. : с
Стационарная неоднородность в том числе: d	62	75
темная полоса e	3	
светлая полоса f	1	
Богги или светящиеся пятна	4	
линии h	5	
яркий край i	15	
другие неоднородности j	34	
Нестационарная неоднородность в том числе: k	19	23
струи, течения l	3	
завихрения m	1	
структура пламени n	9	
флаги o	1	
искры p	5	
Наличие выступающих деталей, шапоподобных конструкций q	4	5
Итого:	85	103

- Key:
- |   |   |
|---|---|
| a. Nature of irregularity                     | j. Other irregularities                 |
| b. Number of objects                          | k. Transient irregularity,              |
| c. % of 82 objects with<br>irregular surfaces | including                               |
| d. Steady state irregularity<br>including:    | l. Jets, fluxes                         |
| e. Dark band                                  | m. Turbulence                           |
| f. Light band                                 | n. Flame structure                      |
| g. Fire or shining spot                       | o. Flares                               |
| h. Lines                                      | p. Sparks                               |
| i. Bright edge                                | q. Projecting "structure"<br>like parts |
|   | r. Total                                |

TABLE 11. NATURE OF LUMINOSITY

Характер свечения : а	число объектов : b	% от общего числа 421 объектов с указ. характ. свечения : с
Тело, видное на фоне свет- лого неба в отраженном свете d	21	5
Темное тело e	32	8
Тело светится на фоне темного неба f	368	87
Итого:	421	100

- Key:
- |   |   |
|---|---|
| a. Nature of luminosity   | e. Dark body                                  |
| b. Number of objects  | f. Body shines against<br>dark sky background |
| c. % of total 421 objects<br>with this kind of<br>luminosity        | g. Total                                      |
| d. Body visible in reflected<br>light against bright sky background |   |

TABLE 12. OBJECT BRIGHTNESS

Качественная характеристика яркости a	Число объектов b	% от общего числа ИСЗ объектов с указанной яркостью c
Слепящая d	9	5
Большая e	101	56
Средняя f	19	10
Малая g	15	8
Подобная яркости Луны h	21	12
- " - Солнца i	2	1
- " - Млечного пути j	3	1
Подобная яркости ИСЗ k	4	2
Значение яркости приведено в звездных величинах l	10	5
Итого: m	183	100

- Key:
- a. Qualitative characteristic of brightness
  - b. Number of objects
  - c. % of total 183 objects with this brightness
  - d. Blinding
  - e. Great
  - f. Average
  - g. Low
  - h. Like brightness of Moon
  - i. Like brightness of sun
  - j. Like brightness of Milky Way
  - k. Like brightness of artificial earth satellite
  - l. Brightness given in star magnitudes
  - m. Total

For 249 objects, the observers presented data on the nature of the change in brightness. The brightness of 157 of the objects remained constant during the entire time of observation. A decrease in brightness of 56 objects was observed and, for 8 objects, an increase. Variations of brightness (flickering) of 18 objects was noted, and abrupt changes of the brightness of 10 objects, of the flash or explosion type, were noted. /29

### 8.3.1. Object Color

For 184 cases (for 295 objects), data on the color are presented. These data are lacking for 162 objects. According to the indications of the eyewitnesses, the range of colors turned out to be extremely wide. The data are summarized in Table 13. We note that, for 53 objects, a mixed, complicated color was observed (for example, yellow-green). Twelve objects had multicolored surfaces. In all these cases, each color was counted separately. The corresponding objects are counted more than once in Table 13.

### 8.3.2. Color Change

In 23 cases, a pattern of the color of the luminosity was observed (changes both toward a decrease in wavelength and towards an increase in wavelength; pulsations, overflows; color changes from /30

TABLE 13. OBJECT COLOR

Цвет a	b	c
	число объектов	% от общего числа /295/ объектов с уясн. цветом
Красный, розовый d	74	25
Оранжевый, "огненный" e	74	25
Желтый, "золотистый" f	57	19
Зеленый g	12	4
Голубой h	33	11
Синий i	2	1
Фиолетовый j	4	1,5
Черный k	6	2,5
Серый l	3	1
Белый m	73	25
Перламутровый n	4	1,5
Серебристый o	9	3
С металлическим оттенком p	7	2

- Key:
- |   |                      |
|---|----------------------|
| a. Color                                | i. Blue              |
| b. Number of objects                    | j. Violet            |
| c. % of total 295 objects of this color | k. Black             |
| d. Red, pink                            | l. Gray              |
| e. Orange, "flame"                      | m. White             |
| f. Yellow, "goldish"                    | n. Pearl             |
| g. Green                                | o. Silver            |
| h. Azure                                | p. With metallic hue |

section to section over the surface of the object). Color changes were observed in a total of 28 objects. In 61 cases for 162 objects, the absence of changes in the color of the luminosity was noted. In the remaining cases, there are no indications of a color pattern.

## 9. Angular Dimensions of Objects

### 9.1. Estimates of Angular Dimensions by Eyewitnesses

Estimation of angular dimensions by unprepared observers obviously involves great difficulties. Descriptions such as the following frequently are found in the reports: "the object was the size of an orange," "of an apple," "like a watermelon," "the size of a tennis ball," etc., and without indications of the distance at which the object was compared. Such estimates cannot reasonably be used.

For 244 objects (of 457), an attempt is made in the reports to give a qualitative or quantitative estimate of the angular dimensions. Of them, 94 objects were evaluated as starlike (angular dimension 0), 7 objects were characterized by a "small" angular size, and 31 objects, by "large" size. For the remaining 112 objects, a quantitative estimate is given. It should be considered that the matter concerns visual estimates made by poorly trained observers. Although the moon or the



sun frequently are used in the estimates of angular dimensions for comparison, in the majority of cases, such comparisons were made from memory (the moon or the sun not observed simultaneously with the object described). Therefore, the estimates presented give an extremely rough idea of the actual angular dimensions of the objects.

The results of the estimates are presented in Table 14. For 8 objects of 206 (112 + 94), two different angular dimensions are presented in the reports (in cases of change in angular dimension or in cases of observation of an asymmetrical object). The corresponding objects are counted twice in the table.

TABLE 14. ANGULAR DIMENSIONS OF OBJECTS

а/угловой размер /приблизительн/	Число объектов b
0 /звездообразный объект/ c	94
15' и менее d	41
30'	21
45'	2
1°	11
2° и более e	5
f Итого:	214

Key: a. Angular dimension (approximate)      d. 15' or less  
 b. Number of objects      e. 2° or more  
 c. 0 (starlike object)      f. Total

### 9.2. Change of Angular Dimensions

For the majority of objects, nothing is stated of changes in angular dimensions in the reports. For 150 objects, it was noted that the angular dimensions remained constant. An increase in angular dimensions was noted for 36 objects and a decrease, for 22 objects. Nine objects initially had constant angular dimensions but, then, they began to change.

The change in apparent angular dimensions of the objects may be a consequence of changes in distance to the object as it moved or a consequence of change in linear dimensions (for example, expansion of a cloud like object). In analysis of the available reports, it is difficult to make a distinction between these two cases, the more so that the superposition of both reasons is possible. No distinction was made in the data presented. /32

### 10. Characteristics of Motion of Objects

The data on motion of the objects presented in the reports include qualitative characteristics of velocity and its changes and data on the nature of the flight path and the flight direction.

## 10.1. Velocity and Acceleration

Data on the qualitative nature of the velocity was presented in 80 cases for 176 objects. In 69 cases for 111 objects, the motion was characterized as uniform. In 36 cases for 65 objects, the eyewitnesses noted irregularities in motion, including:

- onefold change of velocity, 29 cases for 53 objects;
- twofold change in velocity, 2 cases for 2 objects;
- threefold change in velocity, 2 cases for 2 objects;
- manifold changes in velocity, 1 case for 4 objects;
- jerking motion, 2 cases for 4 objects.

Here, accelerated motion was noted in 21 cases (for 36 objects), motion with slowing, in 9 cases (for 18 objects), and change in sign of the acceleration (alternation of acceleration and slowing down), in 6 cases for 11 objects.

In 18 cases (for 21 objects), an abrupt change in velocity was noted (great acceleration), a smooth change in velocity in 15 cases (41 objects), and acceleration characteristics were not presented in 3 cases (3 objects).

Data on the angular velocities of the objects are presented below. In 152 cases for 242 objects, an attempt was made to characterize the angular velocity. In the majority of cases, qualitative velocity characteristics were given: "high" (47 cases); "low" (33 cases); "average" (2 cases); "like an aircraft" (41 cases); "like a satellite" (15 cases). In 13 cases, the velocity was estimated as close to zero. Numerical estimates of the angular velocity are presented for 14 cases. These data are presented in Table 15. /33

## 10.2. Flight Path of Objects

For 51 objects of the 457, the nature of motion of the objects was not indicated or was not clear. Data on motion are presented in the reports for 406 objects. Among them, 8 rotating objects were noted. Data on the flight paths of all 406 objects are presented in Table 16.

Of them, two different flight paths of 24 objects were observed, 3 flight paths for 11 objects, 4 flight paths for 2 objects and 6 flight paths for 1 object. These objects were counted 2, 3, 4 and 6 times, respectively, in Table 16. This should be kept in mind in determination of the total number of objects in the second column of Table 16. /34

Further, as is evident from Table 16, in the majority of cases (284 of 406), motion along a smooth flight path was observed. However, for 122 objects (30% of the total number of objects with the flight path indicated), significant peculiarities were noted: abrupt course changes, hovering and maneuvering of the objects, rotation, unusual flight paths.

TABLE 15. ANGULAR VELOCITY OF OBJECTS

а	Угловая скорость	б	Число случаев
	1 град/мин с		2
	2 град/мин с		1
	3 град/мин с		1
	40 град/мин с		1
	1 град/с d		2
	1,5 град/с d		2
	2 град/с d		1
	4 град/с d		1
	5 град/с d		1
	9 град/с d		1
	20 град/с d		1

Key: a. Angular velocity                      c. Degree/min  
 b. Number of cases                          d. Degree/sec

TABLE 16. OBJECT MOTION TRACK

а	б	в
тип траектории, характер движения	число объектов	% от 406 объектов с углов. скоростью
Главная траектория, характер движения не меняется d	284	70
Изменение направления полета один или несколько раз e	45	11
Маневрирование объектов/взаимное или относительно самолетов/ f	17	4
g Объект висит неподвижно/зависание/	45	11
h Наблюдается вход в зависание или выход из него	61	15
i Необычные траектории/покачивание, спираль, синусоида, отгибание предметов, полет по окружности/	11	3
ж Итого:	403	114

Key: a. Type of track, nature of motion                      g. Object hangs still (hovering)  
 b. Number of objects    h. Start and end of hovering observed  
 c. % of 406 objects with this track                                      i. Unusual tracks (swinging, spiral, sinusoid, rounding objects, flight around perimeter)  
 d. Smooth track, nature of motion does not change                      j. Total  
 e. Change of flight direction once or more  
 f. Maneuvers of objects (mutual or relative to aircraft)

10.3. Flight Direction

In visual observations, it is possible to determine the actual direction of motion of a remote object, only in the event it passes through the zenith. In the remaining cases, we obtain the projection

of the apparent direction of motion on the celestial sphere. Reduction to the actual direction in the absence of additional information is quite uncertain. However, the errors are not over 90°. Therefore, these data only can be used for rough statistical determination of the prevalent directions of movement. As to errors in estimation of the direction by the observers themselves, they are of a random nature and, consequently, have little effect on determination of the prevalent directions in a large body of data.

To simplify the pattern, we considered only objects moving away, and we only allowed for the velocity of departure, disregarding the direction from which the object appeared. For objects, the direction of motion of which changed during the observation, only the direction of final departure of the object was considered. This procedure permits a rough distribution of objects by direction of motion to be obtained.

In 99 cases of 256, the direction of departure was not indicated. In 157 cases, the direction of departure of 220 objects was reported. The distribution by direction was determined by two different methods. In the first method, those cases were selected, when all simultaneously observed objects departed in a single direction and, for them, a distribution of the number of cases vs. departure direction was plotted. In the second method, all departing objects were taken into account (both objects moving in a single direction, and moving in different directions) and, for them, a distribution of the number of objects vs. direction was plotted. The results are presented in Table 17 and Fig. 18. /35

TABLE 17. DISTRIBUTION BY DIRECTION

Направление отъезда/ухода объекта a	b число случаев			c число объектов		
	d всего	e		d всего	e	
		1967г.	кроме 1967г.		1967г.	кроме 1967г.
юг f	8	3	5	10	4	6
юго-восток g	14	12	2	20	18	2
восток h	64	59	5	95	84	11
северо-восток i	33	28	4	55	50	5
север j	15	9	6	20	13	7
северо-запад k	5	3	2	6	4	2
запад l	5	2	3	6	2	4
юго-запад m	5	1	4	8	1	7
Итого: n	149	118	31	220	176	44

Key: a. Departure direction (withdrawal) of objects  
 b. Number of cases  
 c. Number of objects  
 d. Total  
 e. Except 1967  
 f. South  
 g. Southeast  
 h. East  
 i. Northeast  
 j. North  
 k. Northwest  
 l. West  
 m. Southwest  
 n. Total

As is evident, the average distribution for all years but 1967 is quite symmetrical. Isolated deviations are not statistically significant, and they probably are of a random nature. However, the 1967 distribution is clearly asymmetrical. Movement in an easterly direction is prevalent. This can be seen particularly graphically in Fig. 18. On the whole, the distribution by number of cases and number of objects is similar.

The distribution for separate types of objects is presented in Fig. 19. This distribution was normalized by number of objects (the total number of objects of a given type, summed over all directions, is taken as one). Starlike objects associated with crescent like objects, spheres and discs were not included in the "objects of other types" category. As can be seen, the asymmetry is determined primarily by the crescent like objects, as well as by the spheres and discs. However, the crescent like objects make the primary contribution to the total statistics, since their number is larger.

136

#### 11. Estimates of Linear Quantities (Distance, Altitude, Size, Velocity)

In observations of anomalous objects at great distance from the surface of the earth, when the binocular nature of vision does not permit perception of the bulk of an object or estimation of the distance to it and, consequently, the altitude above the surface of the earth, dimensions or velocity, visual observations only permit determination of angular quantities, such as angular altitude of the object above the horizon, its angular dimensions and its angular velocity.

In some extremely rare cases, estimates of linear quantities were successful. This becomes possible in close observations (within the limits of binocular vision), as well as in those cases, when the observed objects can be compared with known objects or phenomena at a known distance (for example, the object is observed against a background of mountains, below the clouds, etc.). Distance data also can be obtained from analysis of cases of simultaneous observation of objects at different points. In these cases, an estimate of the linear quantities (altitude, size, velocity of the object) can be given, if the corresponding angular quantities are known.

##### Distance

In the sample under consideration, the distance to the objects was estimated in 20 cases. In the majority of these cases, the estimates presented are extremely arbitrary. The numerical values of the distances according to these estimates are as follows:

137

100 meters, 3 cases;

from 100 meters to 1 km, 2 cases;

from 1 kilometer to 10 km, 11 cases;

from 10 km to 100 km, 3 cases; 230 km, 1 case.

The last estimate (230 km) was obtained by Z.S. Kadikov, from analysis of simultaneous observations at 2 points, with tie in of the observed position of the object to the stars (GC-0075).

### Linear Dimensions of Objects

The linear dimensions were estimated in 10 cases. For the most part, these estimates also are extremely arbitrary. The minimum estimate was 4 meters and the maximum, 600 m (Z.S. Kadikov). The distribution for intermediate cases is as follows:

from 10 m to 100 m, 4 cases; from 100 m to 300 m, 4 cases.

In a number of cases, eyewitnesses give a completely unsubstantiated estimate of the linear dimensions of a remote object, when it is impossible to determine the actual dimensions. Such estimates were not taken into account in the statistics.

### Altitude Above Surface of Earth

It was estimated in 27 cases, included a few estimates made aboard an aircraft. The minimum estimate was 35 m and the maximum, 100 km (Z.S. Kadikov). The distribution of intermediate cases is as follows:

from 100 m to 1 km, 7 cases;

from 1 km to 10 km, 14 cases;

from 10 km to 100 km, 3 cases.

The data on the nature of change in altitude are more reliable. These data were presented in 68 cases. Of them:

in 30 cases, altitude of the object did not change;

in 12 cases, a gradual decrease in altitude of the object was observed;

in 10 cases, the altitude gradually increased;

in 6 cases, a vertical rise of the object was observed;

in 9 cases, vertical descent;

1 case of fluctuation of altitude was noted.

### Linear Velocity

It was estimated in 10 cases. The minimum estimate was 5 m/sec and the maximum, 5 km/sec.

/38

### 12. Associated Effects and Phenomena

In a number of cases, the anomalous atmospheric phenomena had a definite effect on the environment.

In the majority of cases they apparently occurred silently. The eyewitnesses did not note any acoustical effects and, in a considerable number of cases, the absence of sound was specially emphasized. The rare cases when the phenomenon was accompanied by sound require special analysis. This may be connected with observations of specific non-anomalous objects, for example, bolides, or be because the phenomenon occurred near the observer. In this case, the presence of sound may be an indirect indication for the estimation of distance.

Cases of effects on technical means and the human nervous system were noted. These cases are extremely rare. However, they are of very great importance. Here, careful verification and further accumulation of data are required.

A summary of the observed associated effects is presented in Table 18. The numbers of the cases from the preliminary General Catalog are shown in brackets.

### 13. Dates with Large Number of Observations

/39

Section 5.2 notes independent observations, made during one day at approximately the same time from different points. As an example, a brief description of observations of anomalous objects for three dates in 1967 are presented in Tables 19, 20 and 21. The objects were observed over a quite substantial area. The locations of the observation points are presented in Figs. 20, 21 and 22.

Independent observations at different points are supplementary evidence of the reality of the observed phenomenon.

Theoretically, the following possibilities are permitted:

- simultaneous observations of one object at different points;
- sequential observations of one object;
- observations of different objects.

To choose between these possibilities, detailed analysis must be carried out. Evidently, some of the cases described are observations of one object. If they were simultaneous and not sequential observations, altitude should be on the order of hundreds of kilometers and the linear dimensions, on the order of a kilometer. /43

### 14. Discussion

In conclusion, we discuss the basic outlines of the observed phenomenon, as well as certain conclusions, which flow from the statistical analysis of the observation material.

#### 14.1. Reliability of Initial Observational Material

The analysis was based on written reports of eyewitnesses on the anomalous phenomena they observed. The authors made no verification of the reports.

TABLE 18. ASSOCIATED EFFECTS AND PHENOMENA

a	b
Отсутствующий эффект	Число случаев наблюдения
Звук c	63
отмечено отсутствие звука d	10
явление сопровождается звуком e	
в том числе: f гул	1
g гром	1
h шалест	3
i свист	2
j шипение	2
Изменение условий среды k	
l изменение условий прохождения звука	1 /OK-0177/
m послесвечение неба	1 /OK-0198/
n порывы ветра от движения объекта	2 /OK-0161,0174/
o исчезновение облаков вблизи объекта	2 /OK-0110,0117/
Влияние на машины и оборудование p	
q нарушение освещения	1 /OK-0061/
r нарушение работы двигателей внутреннего сгорания	1 /OK-0253/
s влияние на работу радиоаппаратуры	1 /OK-0219/
t выход из строя электрической части оборудования	2 /OK-0018,0019/
u останов двигателей самолета	1 /OK-0061/
v механические повреждения оборудования	1 /OK-0219/
Воздействие на нервную систему человека w	
x временная потеря зрения	2 /OK-0018,0019/
y подавление /угнетение/ эмоций	2 /OK-0168,0171,0177/
z потеря сознания	1 /OK-0219/

- Key:
- a. Associated effect
  - b. Number of observations
  - c. Sound
  - d. Absence of sound noted
  - e. Phenomenon accompanied by sound, including:
    - f. Roar
    - g. Thunder
    - h. Murmur
    - i. Whistle
    - j. Hissing
  - k. Change of ambient conditions
  - l. Changes of sound passage conditions
  - m. Afterglow in sky
  - n. Wind gusts from movement of object
  - o. Disappearance of clouds near object
  - p. Effect on machinery and equipment
  - q. Lighting disruption
  - r. Disruption of internal combustion engine operation
  - s. Effect on radio operation
  - t. Electrical portion of equipment out of order
  - u. Aircraft engines stop
  - v. Mechanical damage to equipment
  - w. Effect on human nervous system
  - x. Temporary loss of vision
  - y. Mind overwhelmed (depressed)
  - z. Loss of consciousness
  - OK. GC [General Catalog]



TABLE 19. OBSERVATION OF ANOMALOUS PHENOMENA 17 July 1967

GC No.	Observation point	Universal time	Shape	Track	Flight direction
0224	Putivl, UkrSSR	17.45	Angled bands	Not shown	-
0229	Yasinovataya, Donets Distr., UkrSSR	18.00	Crescent- and star-like objects	Smooth track	W-E
0012	Krasnogorskaya station, Stavropol Terr., RSFSR	18.00	Crescent-like object	Smooth track	W-E
0015	Novo-Amvrosiyevskiy, Donetsk Distr., UkrSSR	18.15	Asymmetric crescent, dark body, stars	Smooth track w/ small angle turn	W-E
0013	Nevinnomyssk, Stavropol Terr., RSFSR	18.15	Crescent-like object	Smooth track	SW-NE
0222	Krasnyy Luch, Voroshilovgrad Distr., UkrSSR	18.15	Crescent-like object changed to star	Not shown	SW-E
0226	Lazorevskaya, Krasnodar Terr., RSFSR	18.20	Crescent-semi-disc	Smooth track	?-NE
0014	Molodogvardeysk, Voroshilovgrad Distr., UkrSSR	18.30	Crescent-like object and 2 stars	Smooth track	SW-NE
0221	Zhdanov, Donetsk Distr., UkrSSR	18.30	Symmetrical crescent	Smooth track, hovering, jerky movement, smooth track	SW-NE ?-E
0010	Agudzery, near Sukhimi, Georgian SSR	19.00	Disc visible from edge	Smooth track	W-E

The relatively low fraction of solitary observations should be noted. In two thirds of the cases, more than one eyewitness participated in the observations. In this case, there is a highly substantial percentage of mass observations. Besides, in a considerable number of cases, there were independent observations, made at the same time at different points.

In the majority of the cases, the observers had quite high qualifications. This also raises the reliability of the initial material.

The time characteristics of the phenomena (daily distribution of events and distribution of events by duration) are highly consistent with foreign data. This indicates that we are concerned with a specific class of phenomena, which have definite, stable statistical properties. In this respect, it is important that, according to Vallee and Poher [1], the distribution of events by duration for anomalous (unidentified) phenomena differs significantly from the distribution for known (identified) phenomena and objects.

TABLE 20. OBSERVATION OF ANOMALOUS PHENOMENA 19 SEPTEMBER 1967

GC No.	Observation point	Universal time	Shape	Track	Flight direction
0059	Svatovsk Terr., Voroshilovgrad Distr., UkrSSR	16.20	Crescent- and star-like objects	Smooth track	SW-NE
0056	Zimnik farm, Serafimovich Terr., Voroshilovgrad Distr., UkrSSR	16.20	Spherical body	Smooth track	NW-SE
0063 (c)	Voroshilovgrad-Volgo-grad aircraft flight No. 404	16.30	Crescent-like object, then elongated object	Hovering, maneuvering around aircraft, smooth track	W-E
0064	Volzhskiy, Vologograd Distr., RFSFR	16.30	Crescent-like object	Not shown	-
0057	Novooskol'sk Terr., Belgorod Distr.	16.40	Crescent-semi-disc, then crescent-like object	Smooth track, hovering	-
0058	Severodonetsk, Voroshilovgrad Distr., UkrSSR	16.--	Crescent- and star-like objects, then single star	-	W-E
0053	Donetsk, UkrSSR	17.20	Crescent-like object, then band	Smooth track	S-NE
0054	Zhdanov, UkrSSR	17.20	Spherical body	-	S-N
0061	State farm im. Gor'kogo, Mariinskiy Terr., Donetsk Distr., UkrSSR	17.--	Crescent- and star-like objects	Maneuvers around aircraft	-
0060	Roy Station, Donetsk Distr., UkrSSR	17.--	Asymmetrical crescent and star-like object	Smooth track	SW-NE
0062	Donetsk, UkrSSR	-	Asymmetrical crescent and star, then crescent changed to "irregular" spot	Smooth track	W-E

All this permits the following conclusion. Observations of actual phenomena are described in the reports. If there are hallucinations or false reports, their percentage is small, so that they have little effect on the statistical properties of the sample under consideration.

/44

#### 14.2. Observational Characteristics of Phenomena

1. The spatial distribution of the phenomena covers the entire area of the USSR. In individual periods, increased activity apparently is observed in certain regions, and the areas of increased activity

TABLE 21. OBSERVATION OF ANOMALOUS PHENOMENA 18 OCTOBER 1967

GC No.	Observation point	Universal time	Shape	Track	Flight direction
0078	Novyy Afon, Abkhaz ASSR, Georgian SSR	14.50	Round body (disc)	-	-
0076	Pyatigorsk, Stavropol Terr.	14.59	Crescent-semi-disc	Smooth track	-
0075	Pyatigorsk, Stavropol Terr.	15.00	Crescent-like object	Smooth track	
0079	Yessentuki, Stavropol Terr.	15.00	Object of "irregular shape and stars of distinct volume	Smooth track	NW-SE
0077	Tkvarcheli, Abkhaz ASSR, Georgian SSR	15.05	Crescent-like object	Smooth track	NW-SE
0082	Volgograd	15.05	Crescent-like object	2 abrupt direction changes	-
0080	Rostov-on-Don	15.15	Crescent- and star-like objects	Smooth track	-
0022	Molodogvardeysk, Voroshilovgrad Distr., UkrSSR	15.45	Crescent- and star-like objects, then 1 more star-like object	-	SW-NE SW-S
0081	Novyy Afon, Abkhaz ASSR, Georgian SSR	16.—	Crescent-like object	Smooth track	NW-NE
0106	Armavir, Krasnodar Terr.	-	Crescent-like object	Smooth track	-

change over time. On the global scale, this was pointed out by Saunders [6]. The regularities of this process still are not completely clear, and they need further study.

2. The monthly distribution of events also apparently changes over time. In particular, 1967 was characterized by considerable spring-fall asymmetry.

3. The time of day distribution has a distinctly expressed maximum in the evening, around 9 p.m. local time. The observed curve apparently is a superposition of several effects: actual distribution of phenomena, daily occupation of the population, as well as the time of twilight. In any case, the available data show a seasonal relationship in the observed distribution. This effect requires more detailed study. It is desirable to make a comparison of the times of observation of the phenomena with the time of twilight. The distribution by local star time brings out a secondary maximum, shifted by approximately 6 hours from the principal maximum. The reality of this must be verified with more extensive statistical material.

4. The observed shapes of the anomalous objects are extremely diverse. This can be explained, either by diversity of the phenomenon itself, or by the fact that we are concerned with phenomena of varied natures. Both factors possibly are effective. A considerable fraction of the usually extremely rare crescent-like objects should be noted. This is associated with the peculiarities of 1967, which makes the main contribution to the sample under consideration. /45

5. The average duration of the phenomena is on the order of a few minutes. However, different types of objects are characterized by different durations. Thus, a substantial fraction of the crescent-like objects has a duration on the order of a few seconds, and objects of regular "exotic" shapes (squares, triangles, etc.) have durations on the order of one hour.

6. In a substantial number of cases (22.5%), different phases of the phenomena were observed, which are connected with changes in shape: change in shape of the object (transition from one shape to another); separation of one object from another; connection of one object to another; extinction of a shining object; gradual dissipation of an object; the origination of a new object, etc.

7. In 94 cases of 256 (37%), several objects were observed simultaneously. Associations of objects of different shapes with star-like objects is observed particularly often.

8. Various external details of a considerable portion of the objects (168 of 467) were observed: shining tails, sparks, light beams, arcs, glow around objects, shells of different shapes. "Internal" details of 82 objects (18%) were noted (surface irregularities): dark and light bands, fires, shining spots, streams, as well as details similar to "structural" details.

9. The overwhelming majority of the objects are luminous (apparently self-luminous) bodies, observed against a background of the dark sky; however, in a number of cases, the object was seen against a background of a bright sky and, probably, it shone by reflected light. Finally, in a number of cases, a dark object was observed (a total of 32 dark objects were observed).

10. The color of the luminosity was extremely diverse. The observers noted all the colors of the rainbow from red to violet. Red, orange (fire), yellow and white are named most often. In a number of cases, a silvery color or a color with a metallic hue was noted. Mixed colors (for example, yellow-green) and objects with varicolored surfaces also were observed. In the majority of the cases, the color of the luminosity did not change. However, a color change of 23 objects of 184 was noted. /46

11. The angular dimensions of the objects were estimated with great error. A significant portion of the objects (94 of 457) were point objects (star-like objects); a substantial fraction (61 objects) had dimensions on the order of the full moon, i.e., about 30'; a negligible portion (16 objects) were larger than 1 degree.

12. The angular velocity of the objects, according to the estimates of the observers, were from 1 degree per minute to 20 degrees per second. In the majority of cases, the movement was uniform. However, in 36 cases (for 65 objects), irregularity of movement was noted: single or multiple changes in velocity; jerky movements. Here, abrupt changes of velocity are emphasized in 18 cases (for 21 objects).

The flight paths basically are smooth. However, for 122 objects (30% of the total number of objects with the flight path specified), significant peculiarities were noted: abrupt change of direction, hovering and maneuvering of objects, rotation, unusual flight paths (swinging, spiral, sinusoid, rounding obstacles, etc.).

A clear asymmetry is observed in the flight directions of the objects. Movements in an easterly direction are prevalent. This feature also is primarily characteristic of 1967. The directional distribution for other years except 1967 is quite symmetrical.

13. Data on the linear parameters of the objects is extremely unreliable. The minimum distance, according to the estimates of eye-witnesses, is 100 m and the minimum altitude, 35 m. Some cases can be classified as close observations from indirect indications, when the observer distinguishes details with the naked eye, feels some effect or when a dark object is observed at night. /47

The linear dimensions of the objects are estimated from 4 m to 600 m.

From analysis of simultaneous observations at different points, a flight altitude on the order of several hundred kilometers and linear dimensions on the order of 1 km can be estimated.

The linear velocity is estimated from 5 m/sec to 5 km/sec.

14. In the majority of cases, the anomalous phenomena evidently occur silently. Cases of effects on technical means and the human nervous system have been noted. These cases are extremely rare. However, they are of very great importance. Careful verification and further accumulation of data are required here.

#### 14.3. Nature of Objects and Further Research

A conclusion as to the nature of the observed phenomena can be drawn from available data. Some of them possibly can be due to atmospheric optics effects. However, in the overwhelming majority of cases, they evidently are of a completely different nature. The large percentage of independent observations, made simultaneously at different points hundreds of kilometers apart indicates this, in particular.

A certain portion of the observations may be due to various technical experiments in the atmosphere and space near the earth, to observations of space technology objects, in particular. However, the kinematic characteristics exclude the possibility of such an explanation for at least one third of the cases. It also is difficult to match data on the

shapes of the objects and other characteristics noted above with such an explanation. Finally, observations made long before 1957, i.e., before the start of the space age, must be considered.

Obviously, the question of the nature of the anomalous phenomena still should be considered open.

To obtain more definite conclusions, more reliable data must be available. Reports on observations of anomalous phenomena have to be well documented. The production of such reports must be organized through the existing network of meteorological, geophysical and astronomical observation stations, as well as through other official channels.

Here, a mechanism for the verification of incoming reports, both from the point of view of their adequacy with respect to the phenomena actually observed, and from the point of view of determination of the possible nature of the phenomena (astronomical and geophysical phenomena or engineering experiments in the atmosphere and space near the earth), must be provided.

The question of setting up special instrument observations must be carefully thought out.

In our opinion, the Soviet and foreign data accumulated so far justifies setting up such studies.

Continuation of statistical analysis of the available material, as well as study of the physical parameters of the anomalous phenomena is proposed.

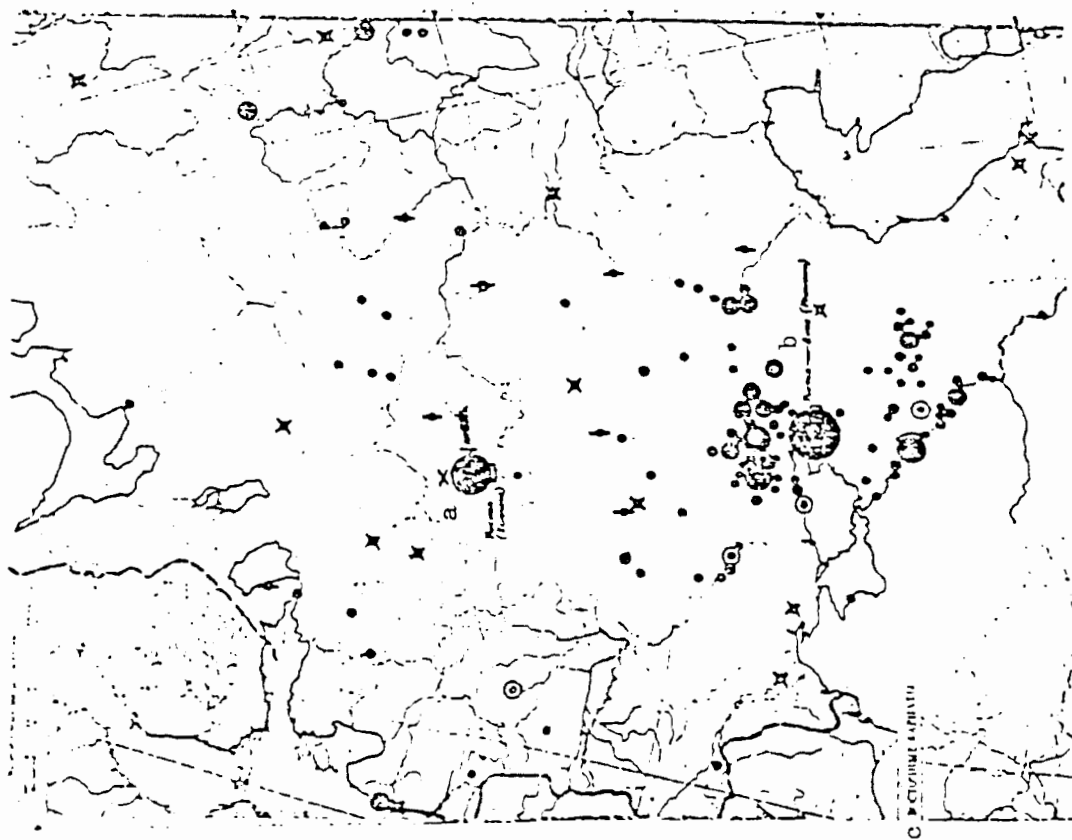


Fig. 1. Observation points, European USSR

- ↑ pre 1957 observations
  - ✕ 1957-1966 observations
  - 1967 observations
  - 1968-1974 observations
- Key: a. Moscow ([illegible])  
 b. Rostov-on-Don ([illegible])  
 c. eastern Carpathians

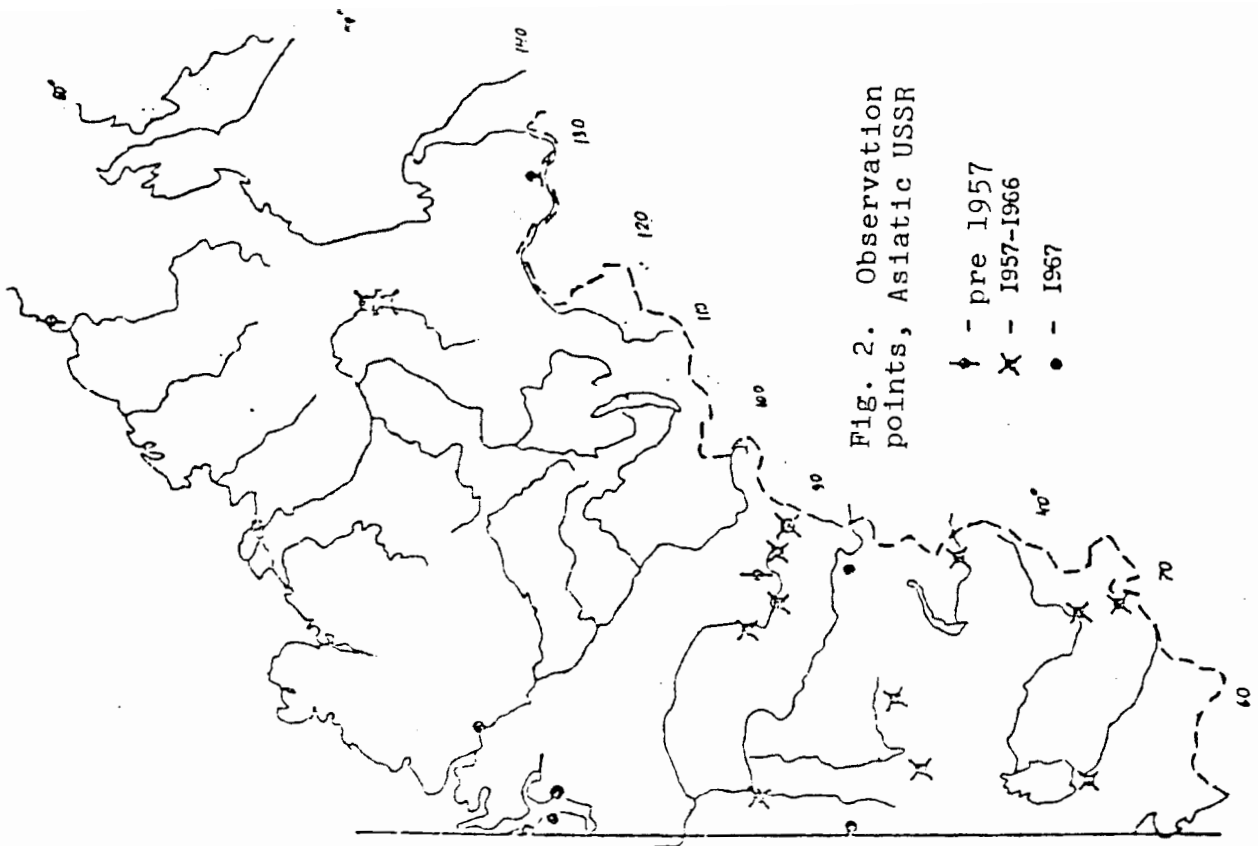








Fig. 2. Observation points, Asiatic USSR

- ↑ pre 1957
- ✕ 1957-1966
- 1967

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-  1 case
-  2 cases
-  3 cases
-  5-10 cases
-  10-20 cases
-  over 20 cases

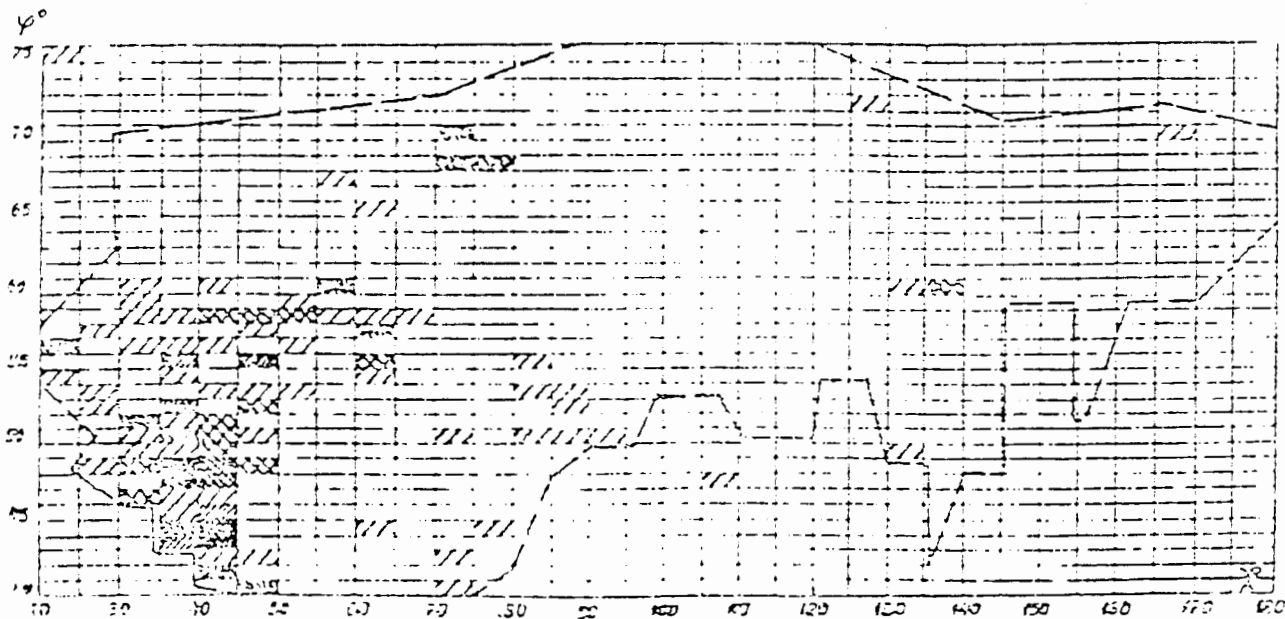


Fig. 3. Two dimensional distribution of number of cases by latitude and longitude for entire sample. USSR boundaries shown approximately by outline.





Fig. 4. Longitudinal distribution of numbers of cases.

Key: a. number of cases                      c. without allowance for duplication  
 b. with allowance for duplication        c. without allowance for duplication

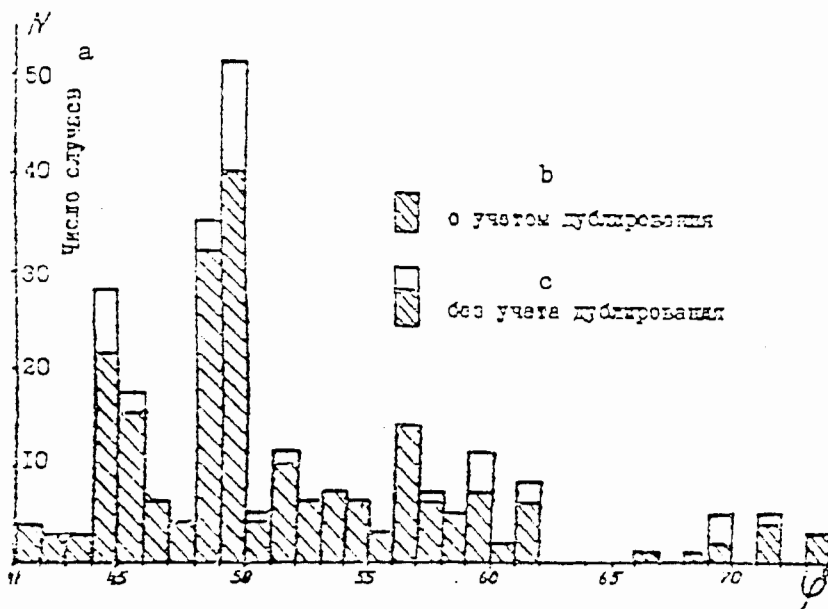


Fig. 5. Latitudinal distribution of number of cases.

Key: a. number of cases                      c. without allowance for duplication  
 b. with allowance for duplication        c. without allowance for duplication

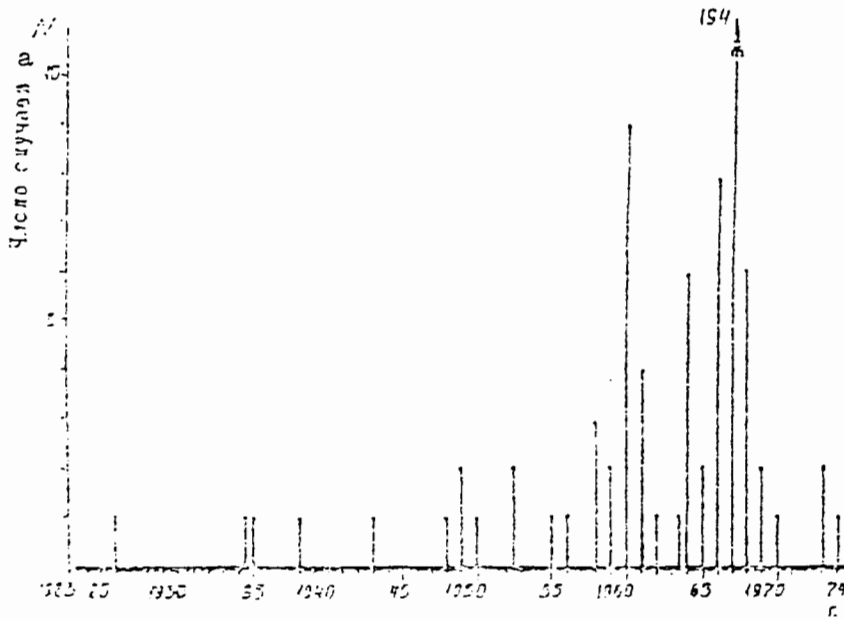


Fig. 6. Distribution of number of cases by year.

Key: a. number of cases

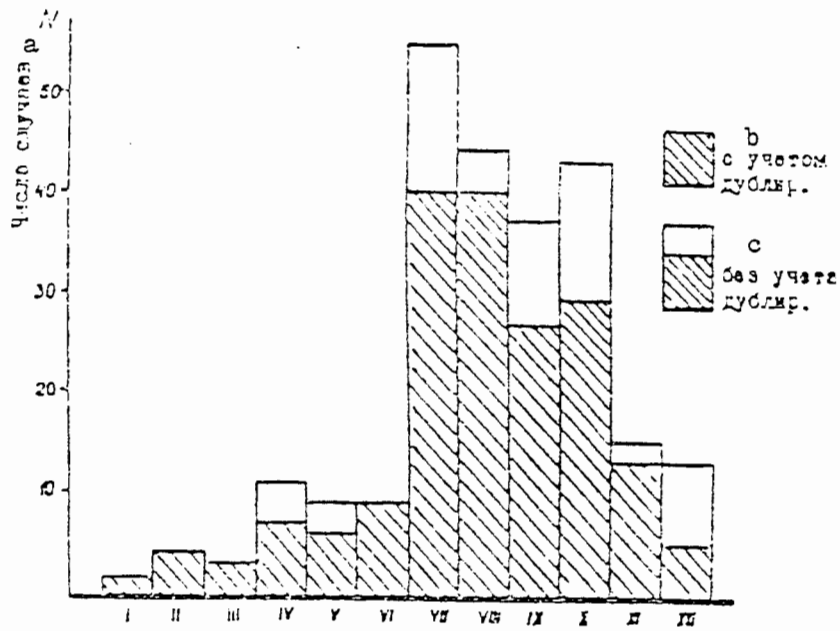


Fig. 7. Monthly distribution of number of cases for entire sample.

Key: a. number of cases

b. with allowance for duplication

c. without allowance for duplication

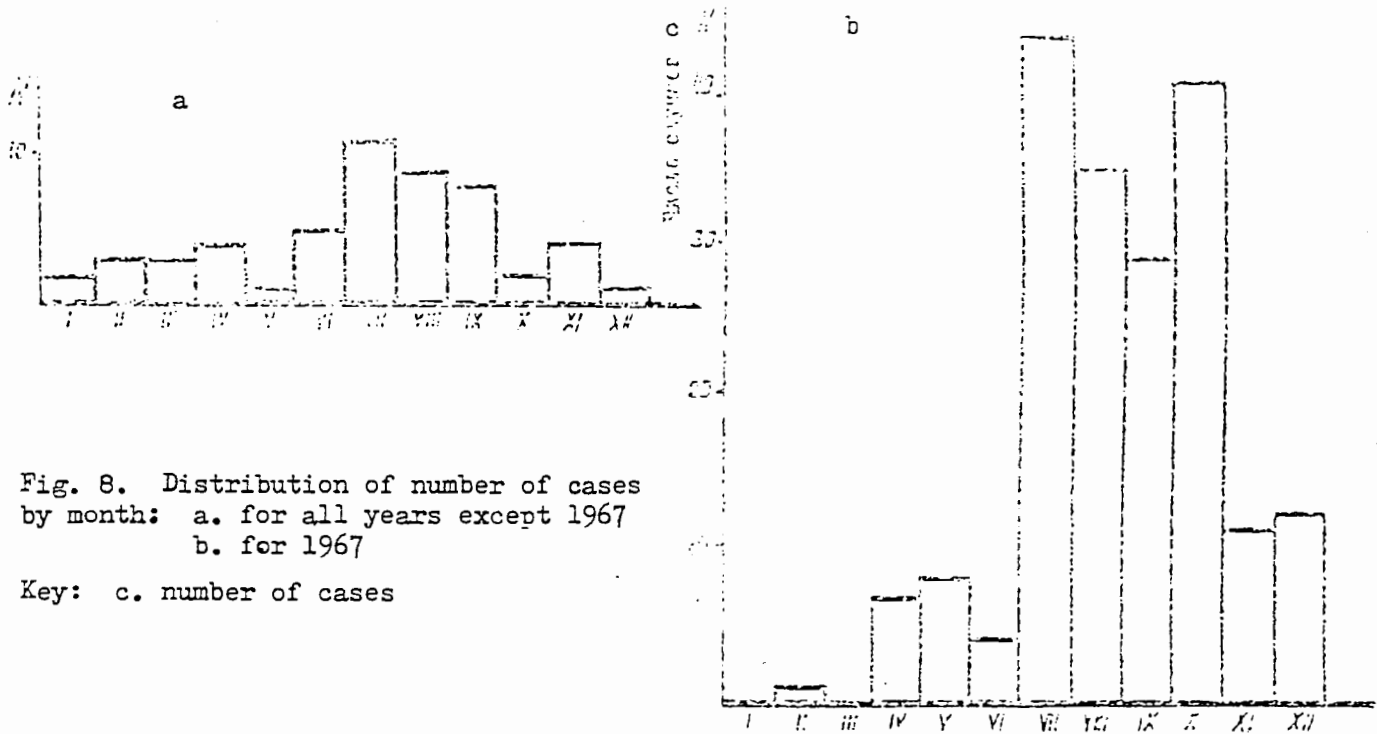


Fig. 8. Distribution of number of cases by month: a. for all years except 1967  
b. for 1967

Key: c. number of cases

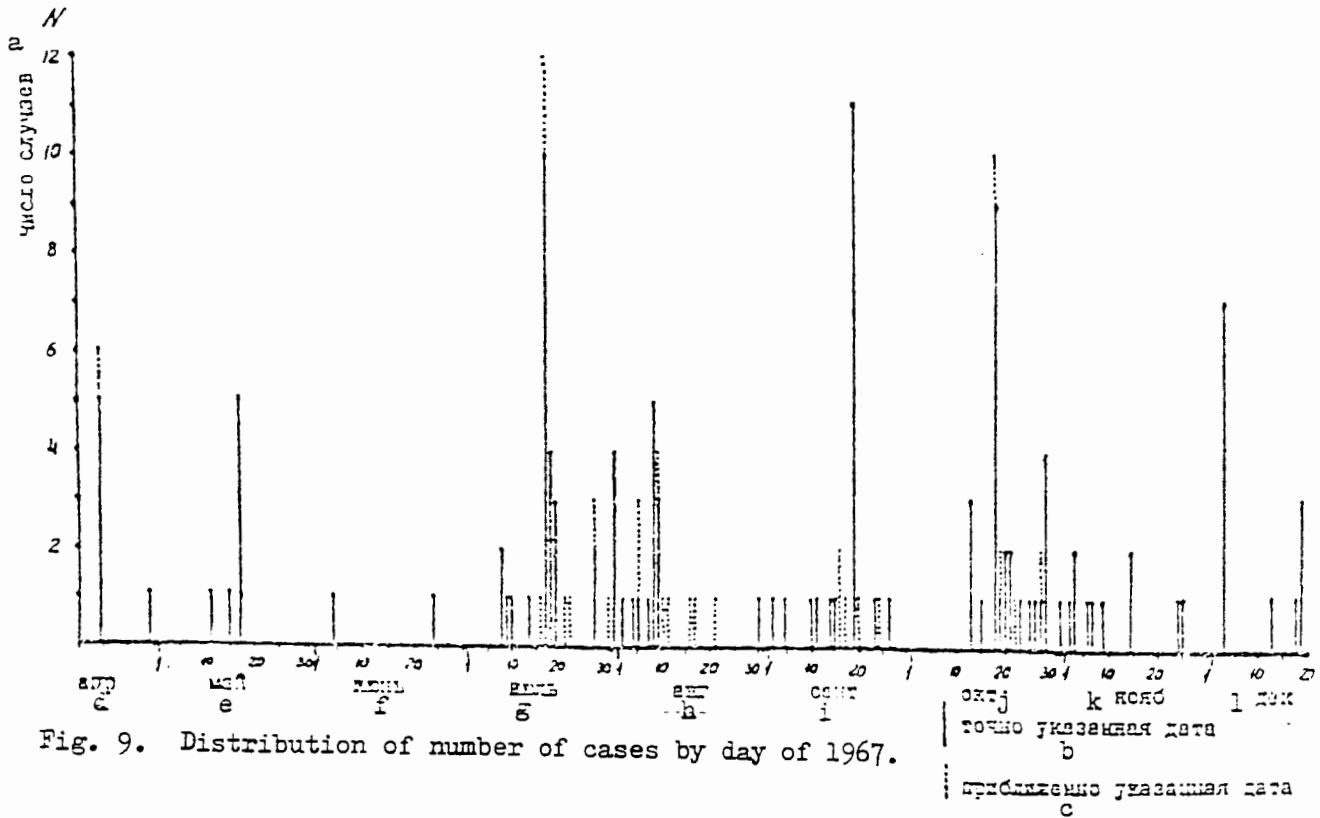


Fig. 9. Distribution of number of cases by day of 1967.

Key: a. number of cases  
b. precisely indicated date  
c. approximately indicated date  
d. April  
e. May  
f. June  
g. July  
h. August  
i. September  
j. October  
k. November  
l. December

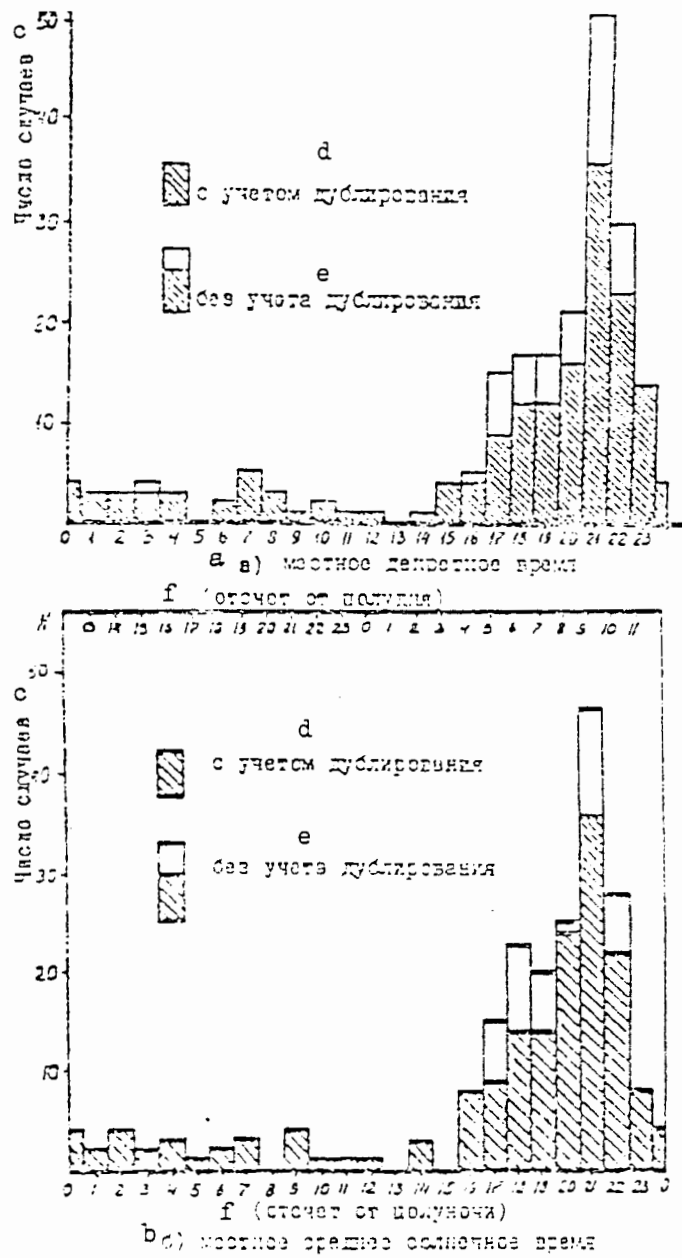


Fig. 10. Time of day distribution of number of cases.

- Key:
- a. local legal time
  - b. local mean solar time
  - c. number of cases
  - d. with duplication taken into account
  - e. without duplication taken into account
  - f. reckoned from noon

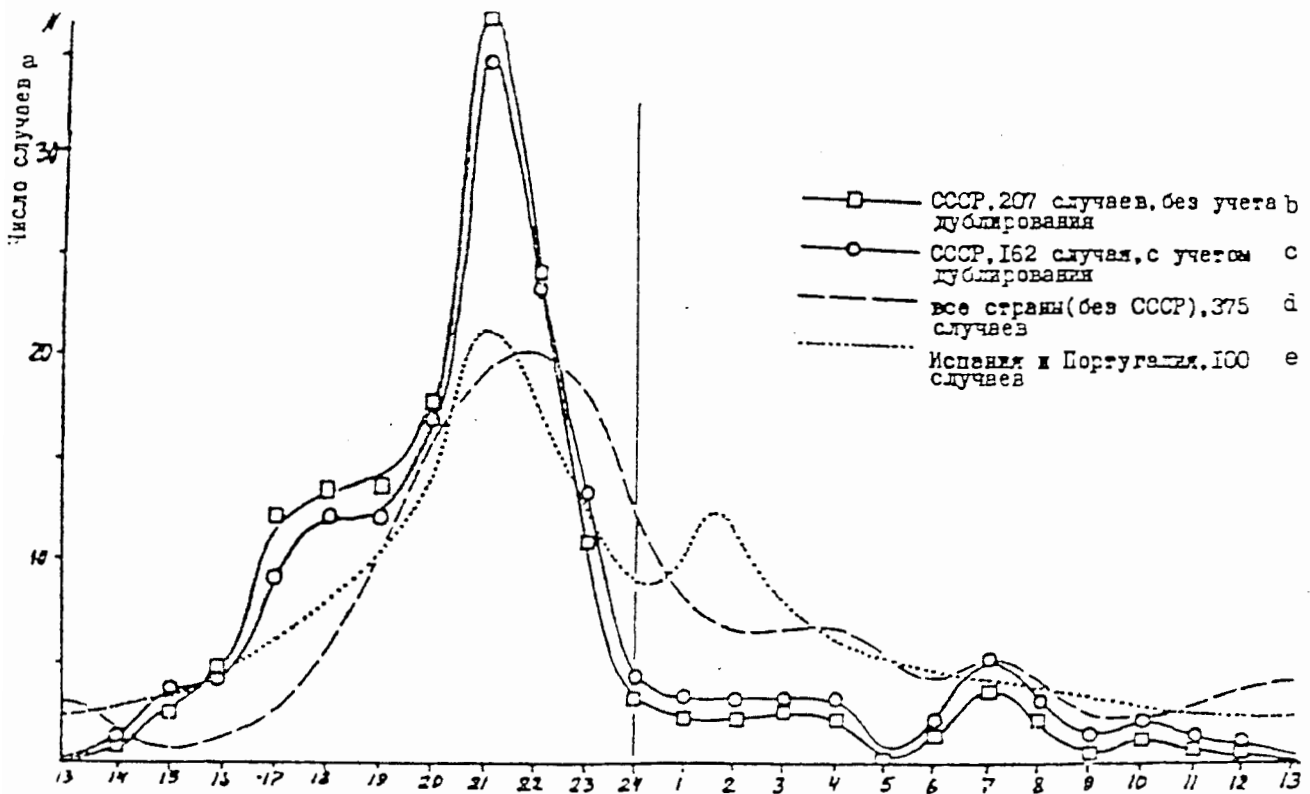


Fig. 11. Time of day distribution of number of cases. Comparison with foreign data.

- Key:
- a. number of cases
  - b. USSR, 207 cases without allowance for duplication
  - c. USSR, 162 cases with allowance for duplication
  - d. all countries (without USSR), 375 cases
  - e. Spain and Portugal, 100 cases

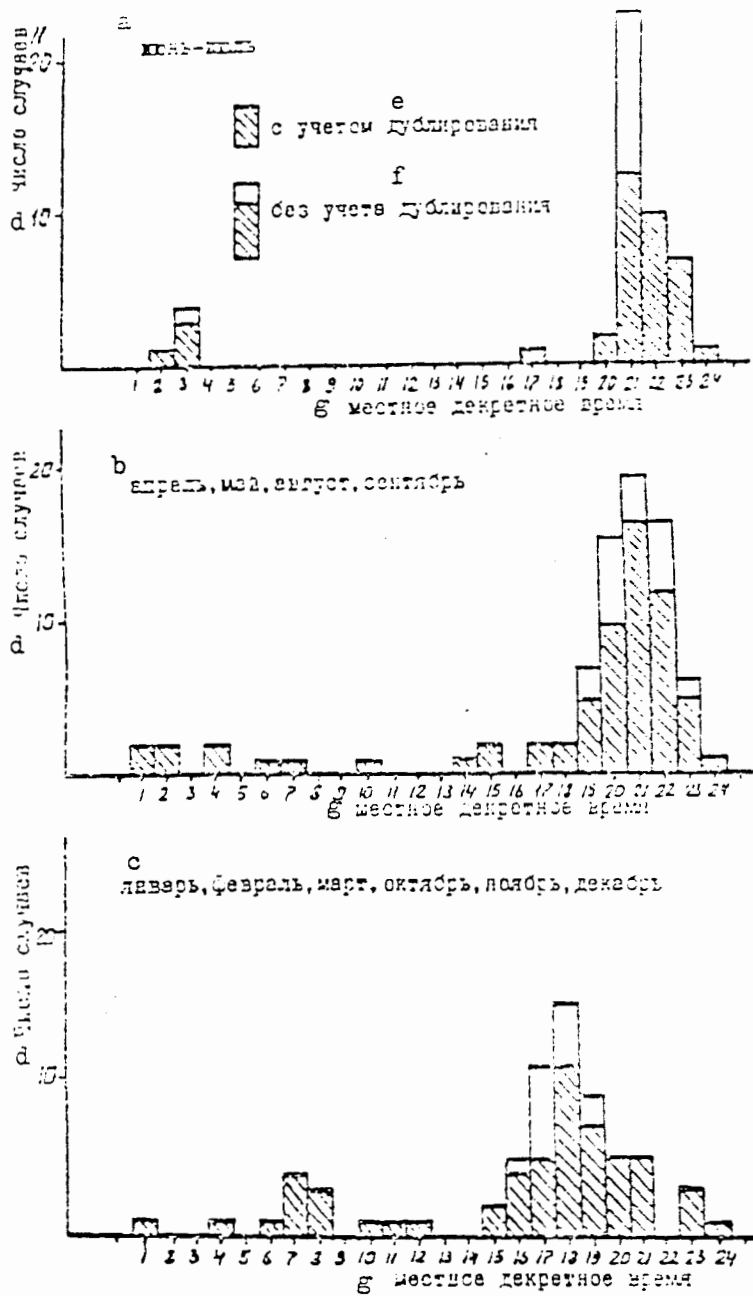


Fig. 12. Time of day distribution of number of cases for different seasons of year.

- Key:
- a. June-July
  - b. April, May, August, September
  - c. January, February, March, October, November, December
  - d. number of cases
  - e. with allowance for duplication
  - f. without allowance for duplication
  - g. local legal time

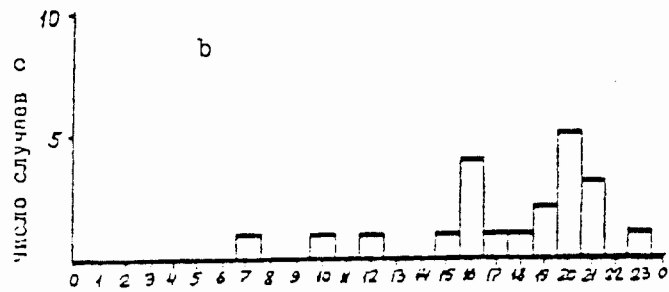
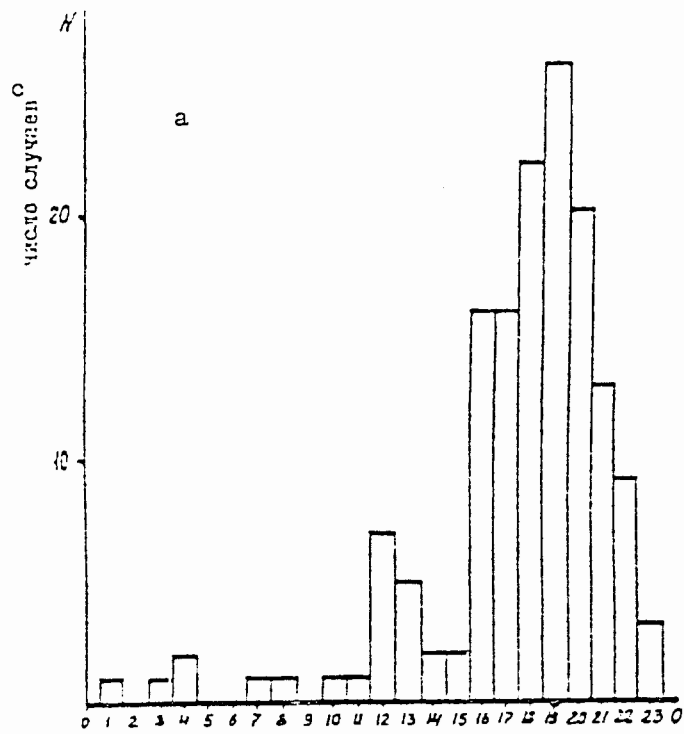


Fig. 15. Distribution of number of cases by time of day, local star time: a. for entire sample; b. except 1967.

Key: c. number of cases

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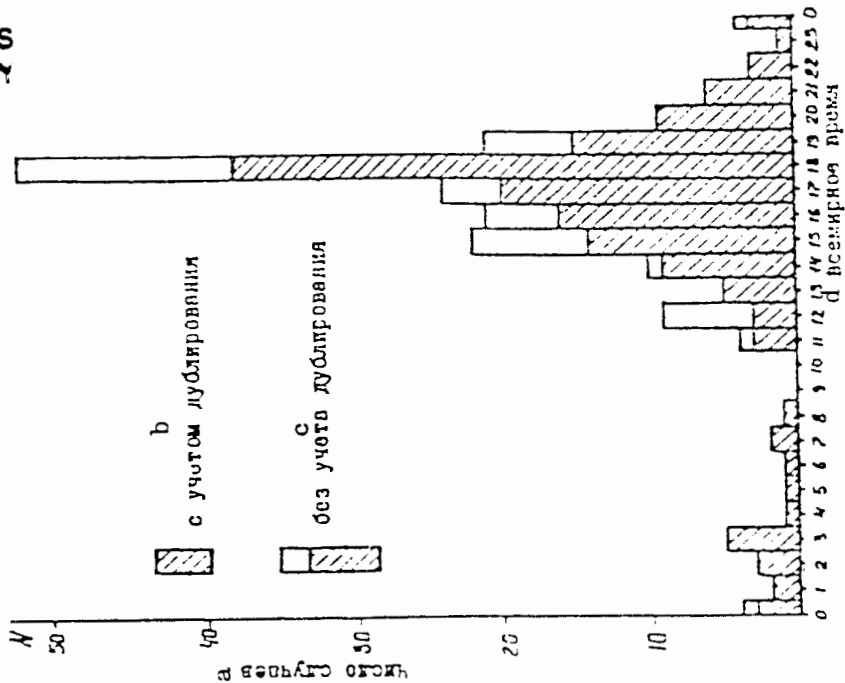


Fig. 14. Distribution of number of cases by time of day, universal time.

Key: a. number of cases  
b. with duplication taken into account  
c. without duplication taken into account  
d. universal time

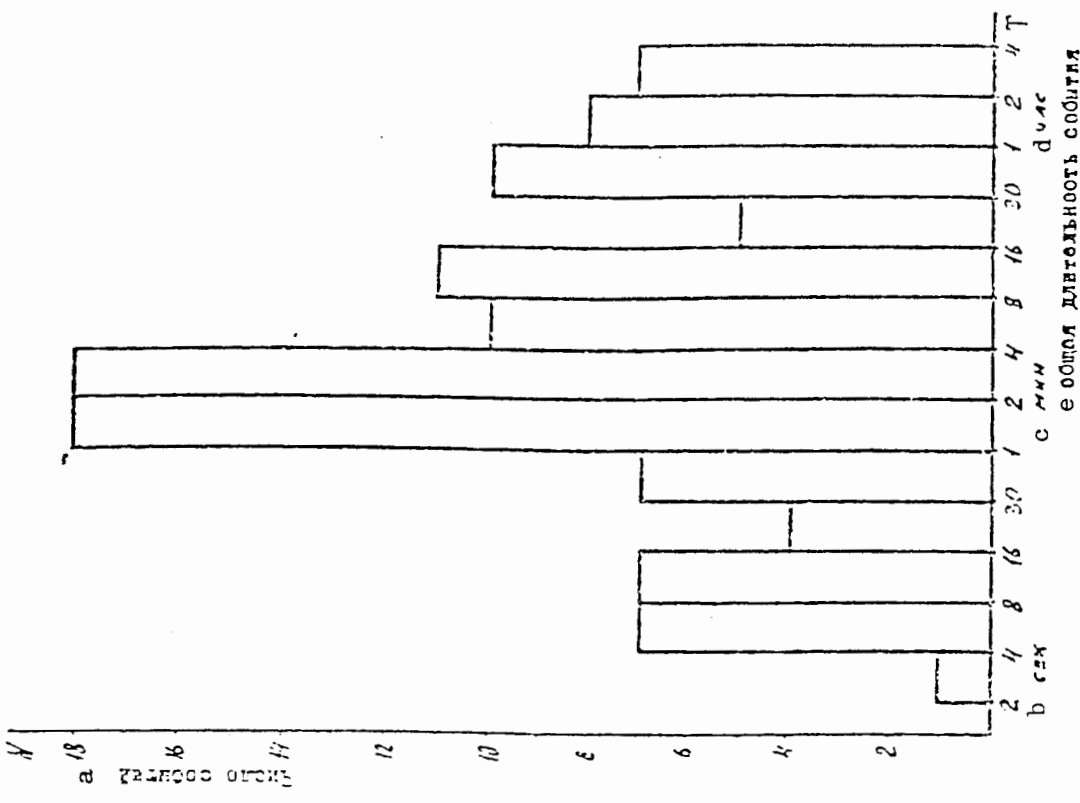
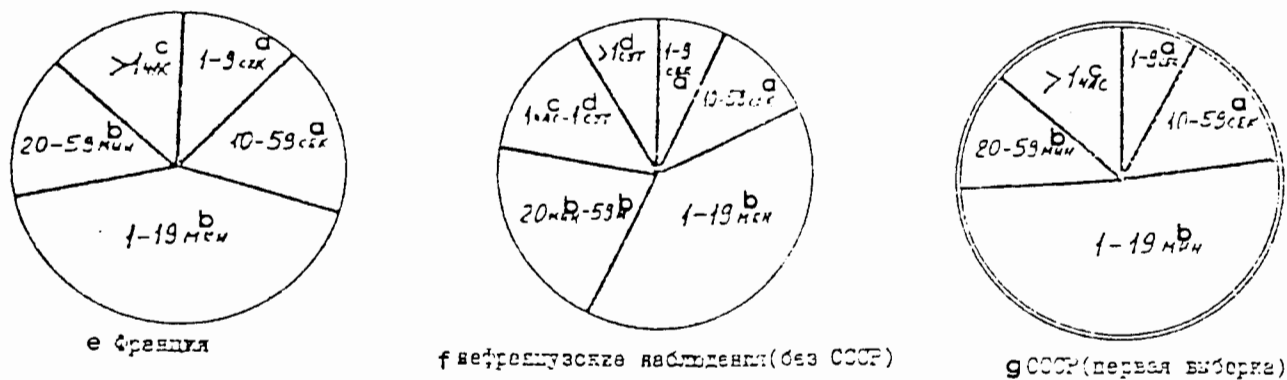


Fig. 15. Distribution of number of events by duration.

Key: a. number of events  
b. sec  
c. min  
d. hours  
e. total duration of event





h длительность наблюдений	i французские сообщения, % из 135 случаев	j нефранцузские сообщения, % из 375 случаев	к СССР, % из 114 случаев
1-9 сек а	13	7	8
10-59 сек а	18	12	15
1-19 мин б	43	39	51
20-59 мин б	14	20	13
с 1 час-1 сутки д	12	14	13
более 1 сутка л	-	8	-

Fig. 16. Distribution of number of events by duration. Comparison with foreign data.

Key: a. sec  
 b. min  
 c. hours  
 d. days  
 e. France  
 f. Nonfrench observations (without USSR)  
 g. USSR (first sample)  
 h. duration of observations  
 i. French reports, % of 135 cases  
 j. Nonfrench reports, % of 375 cases  
 k. USSR, % of 114 cases  
 l. more than 1 day

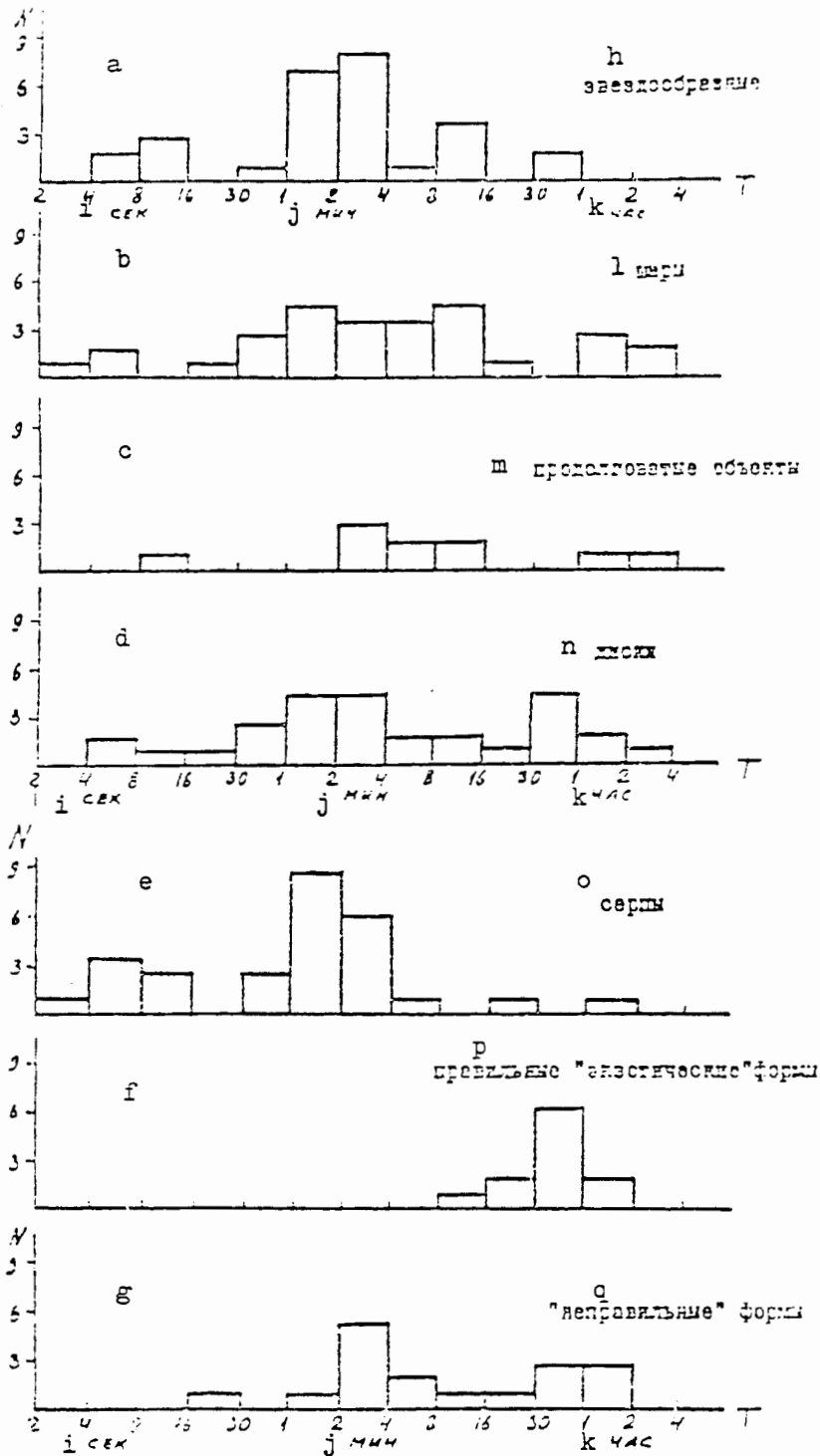
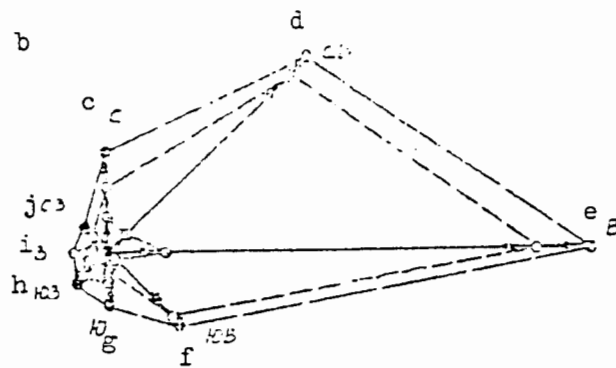
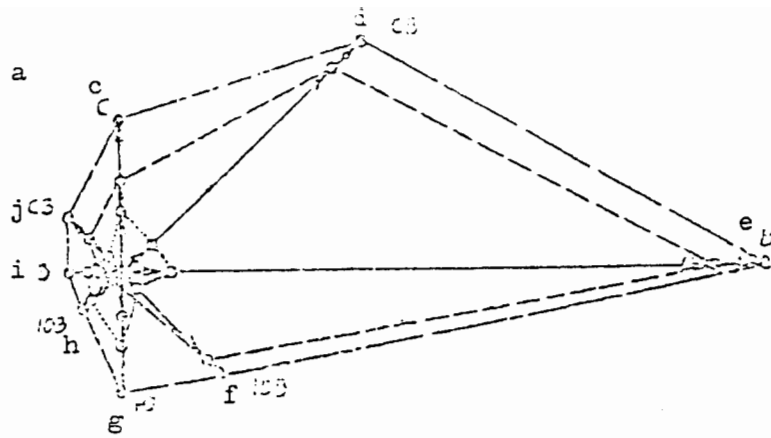


Fig. 17. Distribution of number of objects by duration of observation of different types of objects. N. number of objects.

Key: h. star-like  
 i. sec  
 j. min  
 k. hours  
 l. spheres  
 m. elongated objects  
 n. discs  
 o. crescents  
 p. regular "exotic" shapes  
 q. "irregular" shapes



————— полная выборка k  
 - - - - - данные 1967г. l  
 ..... по всем годам, кроме 1967г. m

Fig. 18. Distribution by direction of motion: a. number of cases, allowing only for cases of departure of objects in one direction (1 case, 2 mm); b. number of objects, allowing for all departing objects (1 case, 1 mm).

Key: c. north  
       d. northeast  
       e. east  
       f. southeast  
       g. south  
       h. southwest  
       i. west  
       j. northwest  
       k. total sample  
       l. 1967 data  
       m. all years except 1967

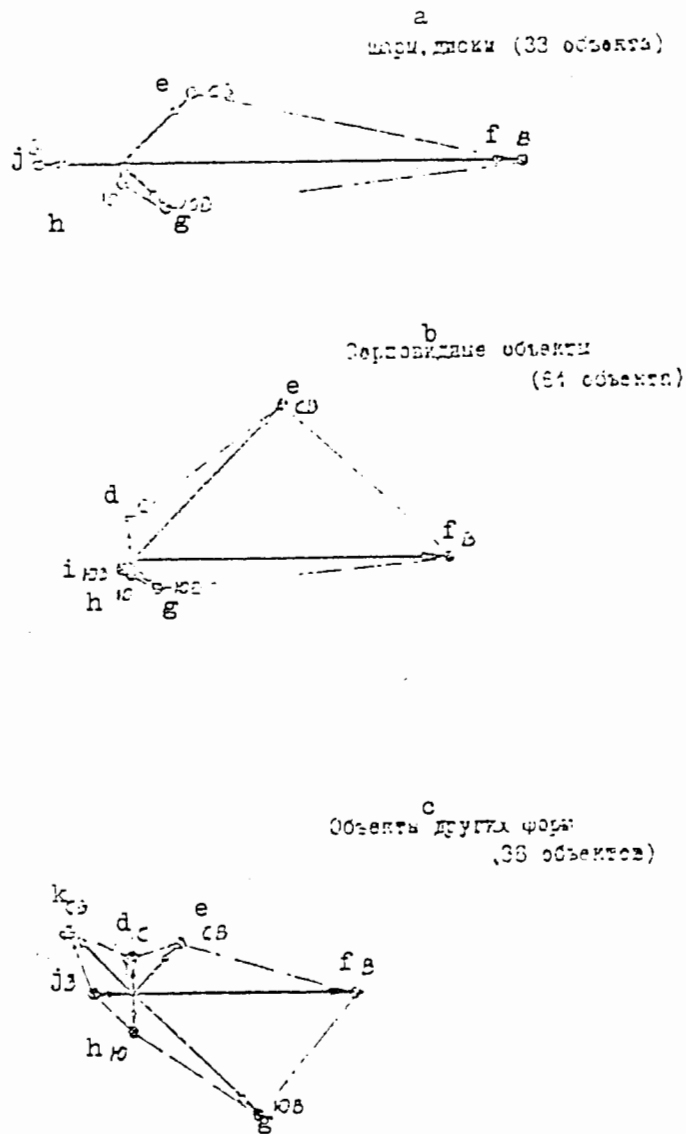


Fig. 19. Distribution of objects of different types by direction of motion (1967) (distribution normalized by number of objects).

- Key:
- a. spheres, discs (33 objects)
  - b. crescent shaped objects (64 objects)
  - c. objects of other shapes (38 objects)
  - d. north
  - e. northeast
  - f. east
  - g. southeast
  - h. south
  - i. southwest
  - j. west
  - k. northwest

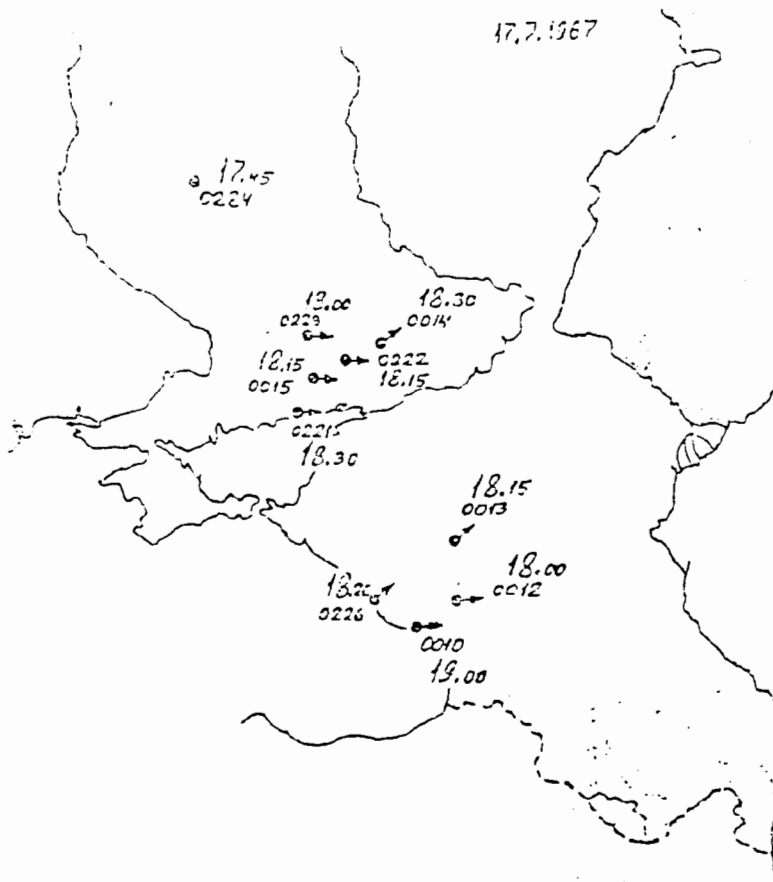


Fig. 20. Observation points 17 July 1967: four digit numbers designate General Catalog number of observation; universal time of start of observations and direction of departure of objects (as indicated by observers) also indicated.

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## CONCLUSIONS

By

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The United States Air Force maintained two UFO investigation programs. Project Blue Book was the only program publicly known to exist. The other program was given a higher classification and its existence was kept from the public and the U.S. Congress.

Project Blue Book's purpose was to act as a public relations unit in that it was to receive UFO reports and answer questions from the general public. The highest classification ever given to Project Blue Book (at the time known as Project Sign in 1948) was "Secret" with an A-2 Priority. Project Blue Book was never meant to be involved in the investigation of UFO reports that could have any possible affect on national security. Project Blue Book was an officially sanctioned deception program to cover up the existence of the more highly classified UFO investigation program of those UFO cases that did have some



bearing on national security.

The more highly classified program was to investigate those UFO cases that hinted at technical intelligence being gained by their closer investigation. These cases were never meant to be part of the Project Blue Book reporting system. Those cases that were considered to have vital technical intelligence were immediately withdrawn from the Project Blue Book system and handled by the agency directed to conduct the higher classified program. This unit was formerly the 4602d Air Intelligence Service Squadron.

Project Blue Book was terminated on December 17, 1969 thus giving the impression that the U.S. Government was out of the business of investigating UFOs and no longer had any interest in the subject. However, the more highly classified program continued to investigate those cases considered to have vital technical intelligence data and continues to do so to this day.

Some type of unidentified aerial objects exist and the U.S. Air Force, among other agencies, is actively gathering information on these objects from around the world. All finalized intelligence on these objects and the data gathered remains classified in the interest of "national security".

The more highly classified UFO investigation program has

been able to conceal its activities by putting it out in the field that they were looking for technical intelligence data on possible new types of Soviet aircraft and later the Soviet space program. This was done in the late 1940's and early 1950's by referring to UFO's and "flying saucers" as possible "unconventional aircraft" of the Soviet's. In the late 1950's on into the present, reference was made to "objects of unknown origin" as being possible Soviet space vehicles that had survived re-entry and impacted with the earth. Much of the material gathered as a result of this continuing investigation has yet to be explained.

The U.S. Air Force officially holds three conclusions concerning UFO's. These are: 1. UFO's are not a threat to national security; 2. UFO's do not represent technological developments or principles beyond the range of present day scientific knowledge; and 3. there has been no evidence indicating that UFO's are of extraterrestrial origin. However, the documentation released under the Freedom of Information Act by the Air Force and other government agencies clearly indicate the first 2 of these conclusions are false by definition alone. While it can not be proven, based on the released documentation, that some UFO's are extraterrestrial, the existing evidence strongly suggest the existence of objects of unknown origin; some of which may have been recovered according the official government documentation that has been released.

The U.S. Air Force, among other government agencies, continues to collect information on certain UFO's reported world-wide and continues to stand ready to go anywhere in the world to recover possible objects of "unknown origin".

The purpose and origin of some UFO's, as reported in FOIA documents, have yet to be ascertained.

The United States Congress has NEVER BEEN BRIEFED on the existence of the classified UFO investigation program or the existence of the recovery program.

## RECOMMENDATIONS

By

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During the existence of Project Blue Book, Congress has held several hearings concerning UFO's. However, these hearings were always limited to the records within the Blue Book files and no member of Congress has ever requested to hear testimony from other agencies or individuals, within these other agencies, who have knowledge of the existence of the more involved investigation or interest in the subject of UFO's. The reason for this is very simple. Congress was not made aware of any agency, outside of the U.S. Air Force, as having any interest in the UFO Phenomena.

The release of classified information or material to Congress by any Department of Defense (DOD) agency is made in accordance with Department of Defense Directive 5400.4. However, Congress must identify the information they are seeking in writing. Also, any DOD employee testifying before a congressional committee in executive session in

relation to a classified matter must obtain the assurance of the committee that individuals present have a security clearance commensurate with the highest classification of the information that may be discussed.

This seems to work well for information up to the top secret level. However, it gets much more involved for information protected under Special Access Programs, such as SCI or ESI material.

Department of Defense employees are briefed that members of Congress, by virtue of their elected positions, are not investigated or cleared by the Department of Defense. They are further cautioned, that while members of Congress might be cleared for information up to the top secret level, they may not be cleared for information protected under certain Special Access Programs; information considered as SCI or ESI material; or other information protected by executive directives. This is particularly true of Congressional aids. Therefore, one can easily see the hesitation on the part of some, testifying before Congress, to be less than candid and at times being less than truthful.

Once again the reason for this is simple. While Congress has passed laws to protect so-called whistleblowers, the Congressional track record on protecting whistleblowers has been poor. Therefore, a person testifying before a Congressional committee is much more hesitant to volunteer

any helpful information not asked for. The rule of thumb is; if not asked, don't volunteer information.

Congress should hold a Congressional Committee in executive session to hear testimony concerning the classified aspects of the information that has and is being gathered by the various defense agencies on reported UFO's, as alluded to by the documentation released under FOIA. This committee should also, inquire into the classified aspects of the recovery of "objects of unknown origin" under Project Moondust and Operation Blue Fly. This action would be of great benefit if for nothing more than to insure Congress is made aware of such actions and their intended purpose. While some of the information gathered by this committee could not be made available to the public, as much as possible should be considered for public disclosure.

In order to insure that Congress can accomplish a fair and just hearing; and to insure that all documentation is made available to Congress for review, the following guidelines should be required:

1. The best government documents gathered under FOIA by private researchers should be made available to the Congressional Committee. From these documents the agencies and agencies' employees involved can be ascertained by the retrieval, by the Congressional Committee, of the complete uncensored documents from the agencies in question as

related within the documents themselves.

2. The Congressional Committee should first meet in open session to explain the reasoning for the hearing and open review of the documentation as released under FIOA. This should be done to remove any thought by the public of possible cover up and to assure the public that this is not a search for "little green men" or "flying saucers" hidden away by the military. It should be made clear from the start that the committee is simply looking for the truth behind the alleged cover up and attempting to determine if various agencies were, in fact, withholding information from Congress and the American Public, concerning the UFO Phenomena, in violation of law.

3. The Congressional Committee should follow up the open session with a closed executive session to hear testimony from witnesses within the various agencies involved. This, of course, should be done to protect legitimate national security concerns. It must be understood that while some information of an intelligence interest might initially be reported as UFO's or flying saucers; and reported in some released FOIA documents as such, they could have legitimate national security concerns having nothing to do with the UFO Phenomena itself.

4. Congress must encourage those government employees, testifying before the committee behind closed

doors, to be open and candid in their testimony. This would have to include both active and retired employees. Remember, these people are well aware of the poor record of Congress as to protecting former whistleblowers. Unless there is full assurance that these people will not find themselves losing their jobs and retirement benefits as a result of some drummed-up charges in the future, they will not be as open or candid as they could be.

5. Because of the various agencies involved, every effort should be made to insure that the members, making up the Congressional Committee, have security clearance commensurate with the highest classification of the information that might be discussed. Remember, some of this information will be compartmented and may be considered extremely sensitive information. Having a top secret clearance will not be enough.

6. A final written report should be made by Congress, after the hearings, with as much public disclosure as possible. Remember, the intent of this committee would not be the proving or disproving of the existence of UFO's; but rather, determining if these various agencies have been completely candid and honest with members of Congress, thus demystifying the alleged cover-up of UFO information once and for all.

7. The intent of the Congressional Committee should



simply be to establish the truth as to the alleged cover-up of UFO information by any governmental agency and the legality of any cover-up should it be established that any such cover-up exist.

## SUGGESTED READING LIST

The Report On Unidentified Flying Objects  
By Edward J. Ruppelt

The Scientific Study Of Unidentified Flying Objects  
By the University of Colorado

The UFO Experience; A Scientific Enquiry  
By J. Allen Hynek

The Hynek UFO Report  
By J. Allen Hynek

UFOS? YES!; Where The Condon Committee Went Wrong  
By David R. Saunders and R. Roger Harkins

Challenge To Science: The UFO Enigma  
By Jacques Vallee

Anatomy Of A Phenomenon  
By Jacques Vallee

UFOS Explained  
By Philip J. Klass

UFO Abductions A Dangerous Game  
By Philip J. Klass

UFOS The Public Deceived  
By Philip J. Klass

The UFO Casebook  
By Kevin D. Randle

The October Scenario  
By Kevin D. Randle

UFO Crash At Roswell  
By Kevin D. Randle and Donald Schmitt

UFO'S: Let The Evidence Speak For Itself  
By Clifford E. Stone

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