

UFO'S: A History
1949:

January — June

UFOs: A HISTORY

JANUARY - JUNE 1949

A minor catalogue of UFO reports and notations on various unofficial inquiries by individuals and privately funded organizations, as well as commentary on military investigations and governmental policies. Presented in chronological order.

By

Loren E. Gross

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Comments on the "green fireballs."

Donald Keyhoe: "I know one astrophysicist who says they may be warnings for us to lay off making A bombs -that's because most of them came in over New Mexico."

Dr. Donald Menzël: "I regret to say that some of the scientists working on the problem have frighten one another to the point where some of them are willing to accept the spaceship identification."

E.J. Ruppelt: "What the devil are green fireballs? I'd like to know. So would a lot of other people."

Dr. Edward Teller: "If I can just believe everything I have heard and put it together with what I theoretically believe in, it ought to be a material body --might be an electron phenomenon."

Dr. Lincoln La Paz: "I think they are defensive maneuvers of some higher U.S. command and they are practicing in the neighborhood of the regions they are going to defend, so naturally your localization of lights near the atomic bomb installations, but boy, am I scolded for that."

U.S. Army memo: "Agencies in New Mexico are greatly concerned... [one] theory advanced as possibly acceptable lies in the belief that the phenomena are the result of radiological warfare experiments by a foreign power, further. that the rays may be lethal or might be attributed to the cause of some of the plane crashes that have occurred recently."

The "Condon Report": --(no comment)

Some important preliminary remarks to the second edition.

The Winter of 1948-49 was much more important to the UFO mystery than most students of UFO history realize. Although there are many gaps to our story, it is hoped that some discussion of certain salient points will aid in the understanding of the more detailed text. Also, this is an opportunity to include some new information and speculation. We will address three questions:

- 1.) Why did strange aerial lights appear over the U.S. Southwest in the Winter of 1948-49?
- 2.) Why was President Truman worried about the Russians and what did this worry have to do with the UFO riddle?
- 3.) Why did project SIGN become project GRUDGE?

Question #1: Why the aerial lights?

--The two-week flap of the summer of 47 was discribed by skeptics as a psychological phenomenon that suddenly appeared and then ran its course.

--On the other hand, persons like Donald Keyhoe, a believer in visitors from space, interpreted the same 47 flap as a nation-wide reconnaissance.

Whichever explanation one chooses, one has to explain the pattern of reports that took place for the next 2½ years. The skeptics would have to be puzzled by the persistence of sporadic reports, and the "believers" would have be wondering what the visitors were going to do. No striking pattern to UFO activity was evident with one exception --some marked activity in the U.S. southwest in late 1948 on through 1949. What was so special about that area?

After World War II President Truman was determined to use the atomic bomb to safeguard the nation and to strengthen the hand of American negotiators during that turbulent period. On December 31, 1946, Truman authorized the establishment of the Atomic Energy Commission to manage the nuclear weapons program. Several months later the AEC submitted a status report to the Chief Executive on what the group found after assuming control. Truman was shocked by what the commission discovered. The test explosions of nuclear devices at Bikini the previous summer had been a show for "strategic purposes" and the advanced bombs meant for warfare remained untested and were not even assembled. What's more, the number of bombs was trifling. Nuclear bombs were put together by highly skilled civilians and most had scattered after the war, leaving low paying government service for lucrative positions with private industry. Military personnel were urgently needed to do the bomb assembly, and these people had to be trained and the bombs simplified so it would not take a Ph.D. to do the job. Also, another headache was serious questions about the supply of raw uranium. A drastic increase in the amount of the material was needed to build a realistic bomb stockpile. It seems that the vast majority of raw uranium came from mines in the Elisabethville District of the Belgian Congo in Africa* and production was shared with Great Britain on a 50/50 basis by treaty. The arrangement was clearly inadequate in view of American plans so

* There was a remarkable UFO sighting at the mines in March, 1952.

late in 1947 discussions were begun with London with the aim of making the treaty more advantageous. By January 1948 talks resulted in the U.S. getting all of the uranium from the Congo for the next two years, 1948-49, plus an option on uncommitted ore that had already been shipped to Britain. This generous settlement was achieved by allowing British scientists access to a number of nuclear secrets.

Sandia National Laboratories in New Mexico, which provided the engineering expertise for the Los Alamos theorists, geared up to build bombs in earnest as the people, designs, and raw material became available. The Joint Chiefs of Staff ordered that 400 bombs be built by 1951. After becoming a true bomb factory, Sandia shipped assembled bombs to Fort Hood, Texas, where there was a secure storage site guarded by the 12th Armored Infantry Battalion under the command of the Fourth Army.

Due to the difficulties previously mentioned, it wasn't until the spring of 1949 that the U.S. manufactured enough bombs to have a "stockpile." It is suggested that the "green fireballs" that appeared over Sandia in late 1948 bear a direct relationship to a sudden ramp-up of American nuclear weapon production. Also, later, in March, 1949, when strange "flares" appeared around the "Q" area at Fort Hood, it is suggested that this interest by the UFOs was triggered by the recent arrival of the first shipment of atomic bombs which was stored as America's first nuclear bomb stockpile.

Question #2: Why worry about the Russians?

To explore this question there is some references to the year 1948. Page numbers given refer to pages in the booklet: UFOs A History:1948.

Trouble with the Russians.

The last thing President Truman wanted in the year 1948 was any kind of showdown with Russia. Did the Russians have any inkling the Americans were bluffing about having a nuclear deterrent?

In Europe, the critical part of the world, there was political turmoil, economic chaos, and disruptive masses of displaced persons. The battle-tested divisions of the Kremlin were poised in mid Europe and Moscow's propaganda machine was in high gear. The Communists were pushing hard and their agents were everywhere. Hungary, Poland, and Czechoslovakia, yielded to the pressure. Even a country not occupied by the Red Army, Finland, gave in after being "invited" to sign a "pact of friendship," a document that crippled its independence. Winston Churchill, surveying the dismal scene,, remarked:"Only the bomb keeps the Russians back."

In January 1948, as previously mentioned, an all-out effort to create an American nuclear bomb stockpile was underway.

In this same month U.S. Air Force Intelligence learned of some sightings of mysterious missiles with "green tails" over Scandinavia, reportedly coming from Russian-occupied Peenemunde on the north German Baltic coast. (Remember this mention of the color green) U.S. Air Force Intelligence felt that the sightings signaled:"...a revival of another series of alledged flying phenomena." (See pp.5-6) The reference here was to the Swedish "ghost rockets" of 1946-47 some believed were Russian flying bombs but were never proved to be a Moscow device.

The future of Europe hinged on Germany and the focus of the East-West struggle was Germany's capital, the city of Berlin. The city was under joint occupation of the four war-time allies, France, Britain, Russia, and the United States. The country of Germany was itself divided in zones, each occupied by one of the forementioned powers. The rub was that Berlin was deep inside the Russian zone and thus at the mercy of Moscow.

The end of March, 1948, the Russian authorities progressively became less tractable in their relationship over the occupation of the German capital. The Communists began to harass traffic and personnel moving through their zone going to great lengths to inspect freight and personal baggage on its way to Berlin. Anyone who complained was turned back.

April 5, 1948, some UFOs exhibiting violent maneuvers appeared very high above Holloman AFB, New Mexico. It was an impressive case and received a lot of attention by Air Force Intelligence. (See pp.24-27)

Lt. Col. James Beam and civilian advisor Alfred Loedding, made a special visit to the home of saucer photographer William Rhodes in early April because the military had a high opinion of the man's pictures taken back in the Summer of 1947. Questioning the fellow, Beam and Loedding learned something new. Rhodes claimed he saw a "vent" across the trailing edge of the horseshoe-shaped object. This detail helped the theory that the Air Force was dealing with a kind of conventional aircraft. (See p.24)

This same month highway, rail, and river traffic to Berlin was choked off by Russian authorities because of what they called "technical difficulties." Only the airplanes remained open.

A U.S. military Intelligence agent reported from Moscow on June 10th that the Soviet Central Party Committee was conducting a "secret study of American flying saucer and Swedish ghost rocket reports." (See p.107)

By June 25th the city of Berlin was effectively blockaded putting the Western powers in a precarious position. Truman had to acknowledge the unpleasant fact that if the U.S. desired to stay in the city it had to show the firm resolve to do so. but that meant a risk of war. The President sent General Clay to Europe to size up the situation and when the General returned on July 22th and reported to Truman and the National Security Council, he said that if Berlin was abandoned it would be a calamity for American security. After conferring about the matter, the President and the NSC authorized a massive airlift to supply Berlin, but did so over the objections of Air Force General Hoyt Vandenberg who pointed out that if war did break out most of the allied and American air transport, vital to Western defense, would be in an exposed position and would be caught and destroyed.

Two days after the important airlift decision, the Chiles-Whitted "sky monster" UFO encounter rocked Air Force Intelligence. Many at project SIGN were convinced by this case that UFOs were real machines. (See pp.34-45) The main question then was: "whose machine?"

To ease tensions, Truman sent representatives to Moscow on August 2nd to have face-to-face talks with Molotov and Stalin about Berlin.

On August 3rd a Western military agent reported seeing a strange cigar-like UFO flying over Moscow. (See p.48)

On August 5th a top secret "Estimate of the Situation" by project SIGN was circulated in Air Force Intelligence and rejected by Air Force Chief of Staff Hoyt Vandenberg. The "Estimate" suggested that the UFOs were inter-planetary visitors. Unknown to researchers of UFO history was the General's

opinion of the Russian secret weapon theory. (See p.50)

During the Summer of 1948 the Air Force's "Nuclear Energy for the Propulsion of Aircraft Project" (NEAP) came under review. Some 45 engineers, metallurgists, aeronautics specialists, and physicists, gathered at Lexington, Massachusetts, for a secret brainstorming session. Some of the experts wanted to terminate the project as being impractical but the U.S. Air Force pushed for a continuation and won a narrow vote. Months later, a military engineer, who had an interest in the success of the NEAP project, played a role in the UFO story in early 1949 by generating rumors that the Russians were experimenting with atomic-powered craft.

The same day General Vandenberg rejected the "Estimate," August 5th, a routine UFO report from Columbia, South Carolina, carried the following official remark on the military paperwork: "...in the interest of national defense, all publicity surrounding this investigation is to be stringently avoided." (See p.51)

In the transcript of the February 16, 1949, fireball conference (detailed in this booklet) Dr. La Paz, civilian meteor expert, confirms that it was he that helped investigate the Four Corners meteor fall back on October 30, 1947. He states that within hours of the fall he and a government search team arrived in the Four Corners region and tried to locate the object. Exhaustive ground searches were conducted. According to Dr. La Paz this was the first time he: "...detected a bit of interest on the part of the military [in meteor falls]." The team found nothing so they went back time and again. Apparently it was La Paz and this search team that visited the C. Weafer's homestead on the Navajo Reservation in August, 1948 (See p.107 of the booklet: UFOs A History: 1948) and made careful transit measurements. Mr. Weafer claims that the scientists and military men on the team were agreed that the object that fell was not a meteor but a "...guided object, probably from the military establishment of a foreign power." (Again see p.107)

The ninth of September the National Security Council, chaired by Truman, was informed that the Berlin airlift was succeeding but that negotiations with the Russians were failing. Tension reached a new high level. Communist-led riots rocked the western sectors of Berlin and the Russian Air Force announced that its jet fighters would be conducting "air exercises" in the same airplanes used by the Berlin airlift transports. In the days following there were a number of close encounters between the transports and the jets. Some people in the U.S. urged Truman to break diplomatic relations with the Russians but the President felt that the only alternative to negotiations was war.

October 1st the impressive George Gorman UFO case took place. Gorman's plane was checked for radiation that might have come from the UFO. Gorman's Commanding Officer talked too freely to the press and was threatened with court-martial. (See p.52)

That Fall, in another example of being security conscious, the U.S. Air Force's Office of Special Investigations (OSI), consulted the "Harper-Knowles" file, a civilian subversive list, during the investigation of a San Francisco, California, UFO case. (See p.52)

A second report by General Clay to Truman and the NSC on October 22nd was more hopeful than his first. The Berlin airlift continued to be successful and the German people were closing ranks behind the Western powers. The struggle over the city had become one of endurance.

Two days after General Clay's report, a strange green fireball was visible for 75 minutes in the sky over Phoenix, Arizona. Air Force Intelligence was convinced the phenomenon was not a meteor due to the time factor. (See p.68)

Another secret activity at this time was the use of the big 100-foot Skyhook balloons by the Americans to spy on the Russians. The balloons were supposed to drift over Russia and snap pictures of areas unreachable by any other means. A UFO report in Air Force files dated November 3, 1948, states that a long, plastic-like "intestine" was seen floating high over the U.S. East Coast, clearly a Skyhook not yet fully inflated. A notation on the report said the report was "secret" and suggested that the message be destroyed. One is tempted to ask: "If the Americans were doing secret aerial reconnaissance, why not the Russians?" (See p.69)

And then, on December 5th, a number of strange green fireballs flashed over New Mexico. In the days following more of the fireballs were seen. Air Force OSI agents questioned CAA officials stationed at the Las Vegas, New Mexico, Municipal Airport about the fireballs and then warned the civilians about the: "...confidential classification of the investigation." (See p.76)

In a letter to the local Air Force OSI unit, Dr. La Paz mentioned that requests from the newsmedia concerning the December 5th manifestations were not disseminated due to: "...pressure from other agencies also investigating this occurrence." (See p.79)

On December 12th, Dr. La Paz, in the company of Air Force Intelligence officers and Atomic Energy Commission security agents, personally witnessed the appearance of a green fireball that: "...passed almost centrally across the Los Alamos reservation." (See p.80)

Due to the quality of the witnesses to the December 12th incident, it seems to be much more than a coincidence that project SIGN got a new name on December 16th. The new name was "GRUDGE."

In mid December the "visitors from space" theory got a strong vote of no confidence from an Air Force advisor, a RAND Corporation expert, Dr. J.E. Lipp. His view was probably the basis of General Vandenberg's August 5th rejection of the "Estimate of the Situation." A few, more or less "pro-extraterrestrial" opinions by him, were outweighed by the negative ones. One should read his "guesses" carefully and ponder their validity. (See pp. 91-92) On December 10th an official report on UFOs was issued. See below.

In contrast, one should notice the big play given in the Top Secret Air Intelligence Report No. 100-203-79 to the Russian secret weapon theory. In that section titled: "facts and discussion" the Air Force even suggested a possible aircraft, a Model Horten XIII, with a regiment of the planes superimposed based near the city of Irkutsk to guard an atomic plant there. (See pp.98-99) The most fascinating thing about the document is that it is so ready to accept evidence that points to the material existence of an aerial intruder in the skies of America.

An Atomic Energy Commission security agent observed a green fireball passage on December 20th and when he reported his experience he hastened to add: "It might damage some of our Atomic Installations eventually if it is not a natural thing and man-controlled." (See p.82)

Dr. La Paz wrote Dr. H.E. Landsberg, executive director of the RDB committee on geophysics and geography, on December 28 that in regards to the green fireballs New Mexico authorities: "...are deeply concerned." (See p.87)

The year ended with a December 29th message being put on file that discussed the reappearance of "ghost rockets" over Scandinavia of which: "...no

proof has been obtained to confirm such flights." (See p.89) In other words, these "rockets" which were thought by some to be Russian and akin to aerial objects being seen in the U.S., were proving a disappointing source of evidence for the Russian theory.

1949 January-June

During the first six months of 1949 covered by this booklet, trouble with the Russians dissipated, while the mystery of unexplained aerial phenomena appearing over the U.S. Southwest became stranger than ever. In odd contrast, project GRUDGE's actions do not reflect the growing strangeness of the UFO riddle.

A diamond-shaped white light swept over Kirtland AFB, New Mexico, Ordance area on January 6th. (See p.5)

Four days later FBI chief J. Edgar Hoover received a dispatch from one of his agents stationed at Knoxville, Tennessee, which detailed the claims of an Army engineer only identified as a "Mr.E" who asserted that the Air Force regarded the aerial objects that were reported over Oak Ridge atomic facility in 1947 as man-made missiles and not natural phenomena. The Army engineer suggested that the objects were "atomic energy missiles" of possible Russian manufacture. (See pp.6-10)

After January 30th a big effort to investigate the meteors was contemplated and we learn:"...local commanders were perturbed by implications of the phenomena." (See p.15)

The next day the FBI issued a document, entitled:"Protection of Vital Installations" and stated in the paper that the Army and the Air Force considered flying discs and "balls of fire" top secret subject matter and it suggested that the Swedish ghost rockets might have been of Russian origin. The paper also told about the Chiles-Whitted report terming the object seen by the pilots a "windowed aircraft of an unconventional type." Furthermore, the green fireballs were mentioned and described as "unexplained phenomena." (See pp.16-17)

Apparently to head off this surge of interest, on February 11th the change from SIGN to GRUDGE became official. One of the first bit of business by GRUDGE was to advise the FBI that the Air Force felt that UFOs "ultimately would be determined to have a natural explanation." (See p.21)

In spite of GRUDGE, a conference on the green fireballs was convened at Los Alamos on February 16th. No Air Force Intelligence people were present.

With Dr. La Paz as the principle speaker, there was considerable discussion about meteors and how the green fireballs were a different type of phenomenon. There was talk about light intensity, velocity, kinetic energy, color, trajectory, shock waves, composition, periodicities, etc. (This conference laid the groundwork for project TWINKLE) (See pp.23-53)

March 1, 1949 the Russians indicated they were sincere about ending the Berlin problem and it looked like the crisis would be over in the near future.

In contrast to the good news in Europe, a very ominous development took place in the U.S. Truman now had his nuclear bomb stockpile, in storage at Fort Hood, Texas, but the "Q" area was being visited by some mysterious aerial "flares." These strange lights seemed to be smaller cousins of the fireballs zooming over New Mexico. (See pp.56-59,66-67,82)

Reports of "flares" around the "Q" area at Fort Hood peaked between April 27th-28th. (See p.66)

Project GRUDGE was busy all this time but evidently it wasn't busy checking out the green fireballs and mysterious "flares." A big two-part UFO debunking article written with GRUDGE cooperation appeared in the April 29th and May 7th issues of the Saturday Evening Post. The prime message was that UFOs were not Russian or visitors from the stars and that a wave of UFO hysteria could hit the U.S. at the same time as an international crisis overloading the Air Force's Intelligence channels.

On May 12th the Russians finally ended the Berlin blockade. Truman hailed the event as a victory for the Western powers.

On May 18th the Air Force issues Air Force Regulation 205-6 prohibiting the: "...disclosure of the nature, sources, or existence of investigative information to unauthorized persons." (See p.75)

Reuters newsservice report more strange flying bodies over Scandinavia, this time eastern Finland near the border with Russia. (See p.75)

May 21st a UFO is seen and detected on radar over the Hanford, Washington, atomic works (apparently now operating at capacity to refine raw uranium) (See p.76)

The army unit guarding the "Q" area at Fort Hood request scientific help, equipment, to investigate the "flares" on June 15th. (See p.82)

On June 22nd a strange UFO sailed over the center of Oak Ridge, Tennessee, atomic works (which was, one assumes, also now operating at capacity to refine raw uranium) (See p.83)

Question #3: Why did SIGN become GRUDGE ?

If the reader has studied this writer's UFO history booklet covering the year 1948, he would have noted that a "big change" was taking place within Wright Field's UFO investigation during the Winter of 1948-49. It is suggested by this writer that the change had to do with the High Command's concern about the security of America's ramp-up production of nuclear bombs. The "seeming inquisitiveness" of the green fireballs about Sandia, and the phenomena's seeming ability to detect the increase in bomb manufacturing, was seen as a potential threat, the first such indication that there was something unexplained in the heavens that might pose a real danger.

Those in New Mexico responsible for the security of the atomic labs: the FBI, the Army, and Atomic Energy Security agents, were of course very worried about the sky lights and took steps to understand them, but it is quite possible no one in those organizations knew the significance of the timing of the "sky spies" appearance. Top secret documents available to President Truman, that had figures relating to the quantity of atomic bombs, had the numbers deleted. These numbers were converted into code, put on another piece of paper, and kept in a separate room.

The first indication of a change in project SIGN was a notification that the project's name would be changed from SIGN to "GRUDGE." This occurred on December 16, 1948. Speculation about GRUDGE has centered on its "debunking" but another reason for the existence of GRUDGE is the fact that it came into being just weeks after the green fireballs began to zoom over New Mexico. The series of December 5th sightings was particularly impressive. A Fourth Army source gives us an interesting clue to the origin and the reason for GRUDGE when he mentioned that GRUDGE replaced SIGN because GRUDGE was to cover both UFOs

and the fireballs. To make this plain, evidently, the Air Force informed the Army on February 11, 1949, that the Air Force would be the "gathering and reporting agency of the fireball incidents"(This didn't stop the Army, however, from conducting inquiries into the mystery). There was a good reason to do this because up to that time UFOs more or less implied physical machines but the green fireballs were thought by some to be possible "geomagnetic manifestations." As Dr. Lincoln La Paz put it, the fireball phenomenon:"...apparently ignores air resistance and gravity and goes blissfully on its way." (See p.42) This explanation seems to have been a favorite with the scientists advising the military although they had trouble dealing with the localized nature of the phenomenon's appearances. In fact, when the FBI began to nose around after being urged to take UFOs seriously by a "Mr. E," the Air Force dissuaded Hoover by an unjustified flat declaration that:"...it was believed that ultimately it would be found that the phenomena in question has a natural explanation." (See p.21)

If the green fireballs caused concern, it can be surmised that the "flares" startled more than a few people. When the flares appeared around the "Q" area at Fort Hood, the bomb stockpile site, it would be asking too much to consider the "flares" a natural phenomenon that happened appear in a "circular pattern around the storage area." (See p.57) After the Fort Hood manifestations, some people in the High Command must have been convinced of something.

Once GRUDGE had assumed official jurisdiction over both UFOs and the fireballs, the result was a continuous debunking. Why this was is explained by the Air Force. Major General C.P. Cabell, USAF, Director of Intelligence, Office of Deputy Chief of Staff, Operations, wrote a Brig. General Moore of the Directorate of Intelligence, DCS/O, on November 30, 1948, just prior to the establishment of GRUDGE, that the Air Force was having difficulties with the newsmedia and was concerned about reactions by the public to the UFO subject:

"At the present time evaluation of these reports has progressed only to the extent that we must accept that some type of flying objects have been observed although their identification and origin are not yet discernible. We therefore conclude that insufficient data is available to date to warrant any further action except continuing attempts to determine the nature and origin of these objects.

"There is increasing pressure on the part of the U.S. Press to publicize 'flying saucer' incidents. The Director of Intelligence, USAF, has attempted to dissuade the Press from publishing articles of this nature. It has been pointed out to the Press that these articles would necessarily be speculative in nature and would probably result in a flood of reports, making the problem of analysis and evaluation...increasingly difficult....

"RECOMMENDATION

"(1) That inquiring agencies be informed that the Air Force is investigating carefully all valid reports of flying objects.

"(2) That the attached memorandum to Mr. Forrestal...requesting authority to assist the Press, upon request, in the preparation of such articles, be signed." 1.

The policies of GRUDGE would be carried over to a later Air Force UFO investigative effort, project BLUE BOOK. BLUE BOOK would last until 1969. A secret Air Force document, obtained through the Freedom of Information Act, said of BLUE BOOK that the project was a "program" which had a certain "primary purpose." The document stated:

"...the primary purpose of the program was to allay hysteria by systematically squelching rumors and illusions. Reassuring the public mind that no tangible evidence existed to support fears of an 'invasion from outer space,' or that 'radical technological advances and developments by the enemy' do not exist, was imperative." 2.

As the reader will see in this booklet, the unusual (unprecedented?) move by the Air Force of requesting the Secretary of Defense Forrester to authorize military intelligence to "assist the press" was evidently approved because it wasn't long before a big two-part article appeared in the Saturday Evening Post, telling the UFO story in a manner acceptable to official policy.

This "guidance of the press," however, backfired. Ken Purdy, editor of True magazine, developed a notion something was terribly wrong with the Post article and the Air Force's attitude. Purdy then got investigator-journalist Donald Keyhoe interested. For Keyhoe it marked the beginning of a decades long struggle between him and the military and a safe bet is that when the last word is written about the UFO mystery, historians will agree: "Keyhoe was right."

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1. "Highlights of Air Force Intelligence Files." Focus, The Monthly Newsletter of the Fair-Witness Project, Inc., Ed. William Moore. 4219 West Olive St., Suite 247, Burbank, CA, 91505. Vol.I, No.6, August 31, 1985. p.4.
 2. "Blue Book's Purpose: 'To Allay Hysteria By...Squelching Rumors And Illusions.'" Focus, The Monthly Newsletter of the Fair-Witness Project, Inc., Ed. Jimmy Ward & William Moore. 4219 West Olive St., Suite 247, Burbank, CA, 91505. Vol.I, No.11, January 31, 1986. pp.1,4.

UFOs: A HISTORY. JANUARY - JUNE 1949

The year 1949 was not even a day old before the Air Force's Project SIGN received word of yet another "flying tube" incident in the snowballing saucer story. The biggest UFO excitement of the previous year, it should be remembered, had been the fantastic Chiles-Whitted "rocket ship" report in the month of July that had given considerable impetus to the extraterrestrial theory to explain UFO reports, an idea fended off by the Air Force Chief of Staff because of its improbability and the lack of alien artifacts to lend credence to it.

The latest case took place in the same general region as its famous predecessor. Upon the receipt of a TWX sent in the name of the Commanding General, Wright Field Intelligence, displaying an interest, the Commanding Officer of Jackson Air Force Base, Mississippi, conducted an investigation which produced some interesting testimony from the pilot witness:

"...my wife and I were flying from Gulfport to North Jackson Airpark and were approaching the airport and our altitude was about 1,800 feet when I saw something go in front of us. I assumed that it was another plane since it was headed toward the Municipal Airport in Jackson and was on the eastern leg of the airways.

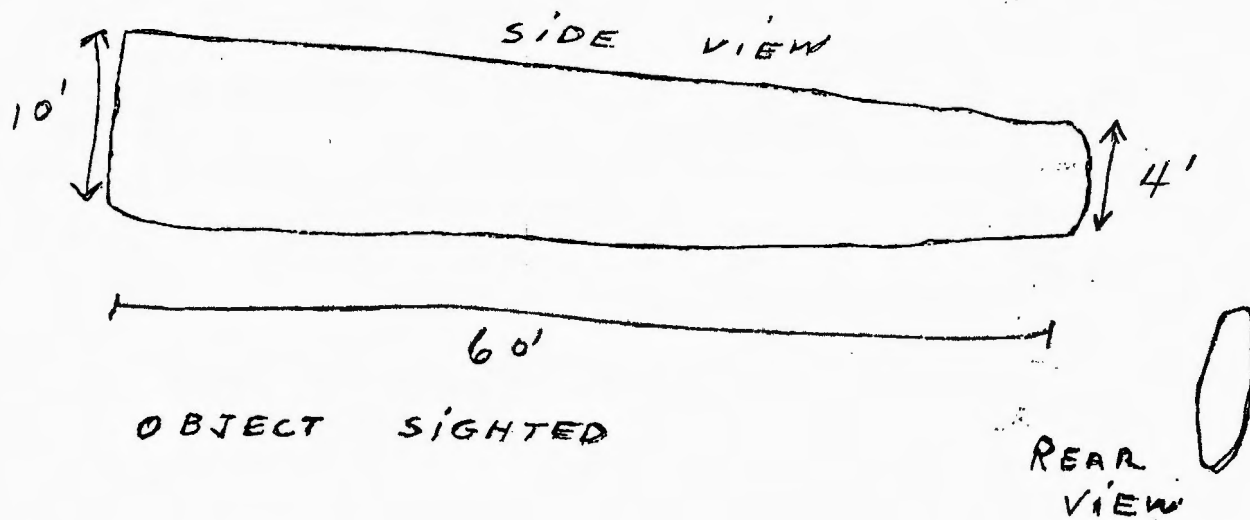
"I watched the object to try to recognize the type of plane. After it passed, it made a turn of about 50 degrees and headed southwest. The time was 17:00 as we had just made a comment on the time and I had checked our ground speed. As the object made its turn, it was then that I noticed the object didn't have wings. At that time, my wife saw the object and became excited. She is a private pilot and is familiar with plane identification from the air.

"The sun had not set and the weather was clear to the southwest as the object went away from us. When it crossed in front of us, I estimated the speed to be about 200 mph and about 500 feet in front of us. We tried to point out the object to the pilot, but he thought we were trying to show him something else.

"As the object turned and went to the southwest, with a sudden burst of speed, it was out of sight. In all, I saw the object 10 or 12 seconds."¹

Listed as case number 233 in Air Force files the official evaluation of the report went:

"There is nothing in this incident that can be said to have an astronomical origin.



The mysterious "flying tube" over Jackson, Mississippi, on January 1, 1949, Sketch by the witness.

"The object sighted is described as resembling a tow target, but no towing plane was seen. No one else reported seeing the object after this one sighting by several persons."²

The pilot did mention a "tow target" in his report but he did not feel that such an object was the explanation:

"At first, I thought the object was a large tow target about 60 feet long and about 10 feet in diameter at one end and about 4 feet at the trailing end. The tail even fluttered like a target but there was nothing towing it and it moved at a greater speed than tow targets I've seen before."³

Four days later a "classic" flying saucer sighting was forwarded to Wright Field from Hickam Field in Hawaii. The case was impressive enough to merit a careful review decades later by Dr. J. Allen Hynek. In compliance with military directives a report was filed. It read:

"In the words of Capt. --- (deleted) the object appeared to be a large round piece of flat white cardboard, oscillating continually. The object sighted was the only one seen and appeared to approximate the size of an AT-6. Capt. --- (deleted) stated that the object seemed to be extremely white on the underside, while the topside portion of the object seemed to have a dark, non-reflecting surface. The speed of the object was approximated at 85 miles per hour. Capt. --- (deleted) further stated that the object circled the area, making right circles and left circles at approximately 3,000 feet, continually gaining altitude and then suddenly departed, still climbing on a straight course of 25 degrees magnetic. It is the opinion of the witness that the object had limited maneuverability, and that no audible sound emanated from the object. There was no exhaust trail visible.

"The witness was much impressed by the brilliance of the whiteness of the underside of the object and stated that prior to the disappearance of the object at a distance of 40 to 50 miles from Hickam Field, the object still seemed to give off a blinking whitish reflection and, according to the witness, this blinking seemed to go on and off with decided regularity."⁴

Furthermore:

"Capt. --- (deleted) reported that, at all times and during the departure of the object, the undulation of the object was extremely rhythmical and that this rhythmical cycle was completed approximately once every second.

"When the object ultimately departed on a straight course, it appeared to increase speed and also to increase the angle of climb so that the angle of climb approximated 25 degrees. Witness stated that it was extremely difficult to approximate the rate of speed during departure due to the distance involved and the intermittency of the reflection. Witness stated that it was his opinion that this object was under absolute control at all times and that definite gyrations were being executed. The turns were extremely wide and decisive."⁵

The Air Material Command experts expressed the following opinion:

"The evidence does not lead to an explanation. It should be noted, however, that if the object were actually the size of a T-6 at 3,000 feet a greater amount of detail should have been observed."⁶

Moreover:

"There is clearly no astronomical explanation for this incident.

"The account given seems trustworthy, even though one person saw the circular disc. This report differs from many others in that the description of maneuvers executed by the object is definite, rather than hazy."⁷

During the "green flare/meteor" investigation late in 1948, the Forest Supervisor of the Santa Fe National Forest was approached and questioned about possible previous reports concerning unusual aerial phenomena. He shook his head when the year 1948 was discussed but brought up something about the summer of 1947. The Supervisor, a Mr. Flock, related a story that seemed to have leads to some useful information. He told of a Santa Fe woman that:

"had reported unusual aerial manifestations to him (during the summer of 1947) on numerous occasions. Mrs. --- (deleted), a writer, and her husband were prospecting throughout the State of New Mexico, and on at least five different occasions, during a period of five to six weeks, Mrs. --- (deleted) had visited him and reported having observed objects which she described as being 'cigar-shaped with a glowing tip' in the sky. No information was available as to the altitude, size, speed, or frequency of these objects. Mrs. --- (deleted) stated that she had personally observed these objects from Tierra Amarilla, New Mexico, to Los Alamos, New Mexico. Mrs. --- (deleted) is believed to have contacted the military security personnel at Los Alamos Atomic Energy Commission (LEAD) installation, and also to have contacted the Governor of New Mexico reference her observations.

It is not believed that Mrs. --- (deleted) is now residing at Santa Fe."⁸

A routine check of the files of G-2 Section, Fourth Army, revealed something unprecedented in regards to UFO witnesses. Instead of the usual negative results, the Santa Fe woman was found to be the subject of an extensive file. The essence of the file went: "--- (deleted) is known to correspond with Communist Front organizations and is considered dangerous."⁹

Subsequently the woman became well known to Air Force investigators, turning out to be more of a nuisance than a dangerous threat, although in the beginning she was regarded with considerable suspicion.

That the Pentagon was attentive to the "green flare" problem and relied on some sort of study of the strange events, is indicated by the following:

"Captain James C. Biddle, Executive Officer, Fourth Army CIC Detachment, Fort Sam Houston, Texas, interviewed 3 January 1949, stated in substance that the Fourth Army is in receipt of a letter from the Director of Intelligence, Headquarters, General Staff, Washington, D.C., advising them to expect reports of aerial phenomena during this period of the year and to report same to AMC, Wright-Patterson Air Force Base."¹⁰

For some reason, Project SIGN made a renewed effort to figure out an answer to the Lt. Gorman-UFO incident of October 1, 1948. A long letter to the Commanding General of the North Dakota Air National Guard sent by Colonel McCoy of Wright Field asked that all witnesses be interviewed again to clarify certain points that remained vague:

"As to the exact shape of the object seen. Did the object appear symmetrical and what was its shape as seen from various angles--in turns, from head-on, from the rear, from either side, above and below? Did the shape appear to vary while being viewed from any one aspect? Give details of shape as it appeared from all angles. Include three dimensional sketches by each witness.

"As to the size and range of the object as viewed from Gorman's plane and from the ground. Lt. Gorman states object appeared to be six to eight inches in diameter and that its closest proximity to his aircraft was apparently five hundred feet. There is great difficulty in estimating size and distance of an object when neither the normal size is known, and where there is no object of known size at equal range to the unknown object for comparison. Was the object estimated to be actually six to eight inches in diameter or was this area of space it occupied

on Lt. Gorman's windshield? Did the size of the object (in respect to area occupied on windshield) vary in proportion to apparent variance in range, or did it appear to the eye in constant dimensions? Was object only seen through the windshield, or was it seen also through the canopy, to the side and rear of the F-51?

"As to luminosity of the object, Lt. Gorman states there were no visible projections or unlighted sections to the object, and that he observed the object while it passed between him and the lights of Fargo. How intense was the light of the object, in comparison to city lights? Was the object lost to view for instantaneous periods while it eclipsed bright city lights?"¹¹

The only result publicly known of this inquiry was a statement made on January 24, 1949, which said: "... the Air Weather Service provided ATIC with an analysis which indicated that Gorman had been chasing a lighted balloon."¹²

One could easily disagree with the balloon explanation, but instead let's explore something else. Why the vigorous attempt to clarify the details on the object pursued by Gorman? Since there is no definite official reason, we are free to speculate. It could be that it was guessed the strange lights alarming New Mexico were the same thing Gorman had chased. What is known is that one of the top scientists studying the UFO mystery believed that reports of machines; i.e., flying saucer craft and rocket-like objects, were the results of hoaxes and illusions but that sightings of strange lights, or foo fighters as they were called in World War II, were the real mystery.

As if on cue, Wright Field received word of yet another "flare" over New Mexico. Air Force records tell us:

"... on 6 January 1949, while guarding an aircraft near the Ordnance Area, Kirtland Air Force Base, he (the witness) had observed a bright object traveling across the sky. The time was approximately 1730, and the sky was clear, providing a light blue background. The object was diamond shaped, about two feet long, bright white in color, and moving at a high rate of speed. Altitude was estimated at 1500 to 2000 feet, and distance traveled was estimated at 500 feet. There was no smoke or trail. Two other persons with --- (deleted) did not see the object."¹³

"Firmly of the opinion:"

Speaking on behalf of Air Force Headquarters in Washington, D.C., Lt. Col. Doyle Rees notified the C/O of Kirtland AFB on January 11th that:

"Investigations to date have not produced any positive information regarding the source or nature of the unidentified aerial phenomena, additional sightings of which continue to be reported. Dr. Lincoln La Paz, Director of the Institute of Meteoritics, University of New Mexico, is firmly of the opinion that the reported phenomena are not of meteoritic origin."14

Official evaluators remarked:

"If it were not for the fact that the incident appears to belong in the family of New Mexico 'green flashes,' the object could be considered to have been a slow meteor, even though the time of night of the sighting does not favor that hypothesis. It is much more probable, however, that this incident falls into the pattern of those dealt with in detail in the report on incident #223. See that report for further discussion."15

"Atomic Energy Missiles?"

Special Agent in Charge, the FBI, at the Knoxville, Tennessee, office, a Mr. C. C. McSwain, sent a dispatch to J. Edgar Hoover on January 10th with the heading: "Flying Saucers Observed Over Oak Ridge Area, Internal Security -X." McSwain discussed some reports of reputed UFO activity over the super-secret atomic installation that were made in July 1947. The data had been given to McSwain by a John Rathman, Chief Investigator, Security Division, Atomic Energy Commission; and a person identified only as a Mr. "E" who was Resident Engineer, AMC, U.S. Army. This Mr. "E" also did special work for the "Nuclear Energy for the Propulsion of Aircraft Research Center" at Oak Ridge. With renewed fears of Soviet aerial intrusions, which also meant renewed FBI interest in UFOs, Mr. "E" felt compelled to approach the Bureau with his opinions. Special Agent McSwain, after listening to Mr. "E" expound at some length, wrote down what he felt was important and submitted a report to Hoover. McSwain penned:

"Mr. 'E' predicated his remarks concerning 'flying saucers' or 'mystery missiles' by stating that he knew nothing of an official nature concerning them, other than the fact that they were believed by Air Force Intelligence officials to be man-made missiles, rather than some natural phenomenon. It was his further belief that a great deal of information had been compiled concerning these missiles by Air Force Intelligence, and that research on the matter was being done extensively at Wright Field, Dayton, Ohio. He also expressed the opinion that information at the disposal of the United States Army Air Force Intelligence had, in all probability, been made available to the Bureau at Washington, D.C.

"Mr. 'E' then continued with his own ideas as to what might be the nature of these discs, which were ideas he had formulated through review of known facts and theoretical conjectures of himself and other scientists concerning the nature of flying discs and methods of propulsion for such type of aerial mechanism. According to him, flying discs have long been a theoretical possibility and, in fact, a possibility which would indicate one of the best means by which to break through the barriers of the supersonic area. Scientists have, for many years, been attempting to develop this kind of aircraft. Some experimentation has been done even in the United States, but insofar as is known in the United States at the present time, there have never been any practical developments. As a second factor of consideration, Mr. 'E' stated that insofar as is known to U.S. scientists at this time, there is no chemical fuel which would make possible tremendous range of flight such as is ascribed to the reported 'flying saucers.' There is only one possible fuel which could be utilized which is in accord with present theory, and that is the utilization of atomic energy. As further evidence of this possible means of propulsion, Mr. 'E' called attention to the vapor trail and gaseous corona described as a ball of fire, which he states might give some evidence to the fact that a radioactive field is present. He explained that the corona, or exhaust, has what appears to be layers of intensity which are circular rather than elongated and have no tendency to trail at the extremities, as would be the case if a normal type of exhaust from a combustion engine was being utilized in the propulsion of these aircraft. He continued that the vapor trail left by the missile appears to be one single line of uniform intensity which is extremely slow in dissipating. It was pointed out by him that in the case of a normal vapor trail being left by an aircraft moving at extremely high speeds or extremely high altitudes, the vapor trail usually will be from the wing tips and/or the exhaust of the engines, thus presenting several lines. But, in any event, even though only one line were visible, it would be rather quick to dissipate. This indicated to him that the vapor trail represents some atmospheric change along the path of the missile, which would not be the case were it any presently known type of aircraft.

"He continued that the information furnished by him should be treated with the upmost confidence, in that he was not speaking officially, but as a matter of personal cooperation. He stated that the matter was being given absolutely no dissemination by the Air Force or other military personnel, and that they had not deemed it advisable to advise him of all information pertaining to the missile. He continued,

however, that in his conversation with representatives at Wright Field and in reading reports returned to this country by foreign agents, he had gathered together certain information which might be of assistance in determining whether or not these so-called missiles were authentic, usable, and of danger to the United States. First, he pointed out that knowledge of such a possible aircraft is not by any means new, it having been known as early as four years ago that some type of flying disc was being experimented with by the Russians. In addition thereto, he stated that more recent reports have been received from representatives of the Central Intelligence Agency in Southern Europe and Southern Asia to the effect that the Russians were experimenting with some type of radical aircraft or guided missile which could be dispatched for great distances out over the sea, made to turn in flight and return to the base from which it was launched. This fact was extremely worthy of notice as experiments in this country have so far only developed to the point where we are concerned with delivering a missile to the required point of impact, and no consideration has been given to imparting to that missile the ability to return. Secondly, he stated that it is a known fact that the Russians are attempting to develop some type of nuclear energy, that they received a wealth of information concerning nuclear energy at the time of their occupation in Germany, and that they too have at their disposal the limited supply of the necessary fissionable materials. He stated that insofar as any opinion as to whether or not they have the ability and scientific knowledge to create such a nuclear powered missile is strictly a matter of conjecture, and that he would hesitate to make any definite statement. He pointed out, however, that the Russians have some very capable scientists in the field of atomic energy and that, in addition thereto, they took into their custody some of the most advanced and capable scientists of the German Nation.

"He also stated that a peculiar fact concerning missiles exists from reports he has received which is worthy of notice, and that is that from all appearances they have usually approached the United States from a northerly direction and have been reported as returning in a northerly direction. None have ever been known to crash, collide, or disintegrate over American soil, but it would appear that they come to the United States, cruise around, and go back over the North Pole. He states that insofar as is known to him, there has never been any piece of one recovered from any source whatever in order that analytical study of its nature could be made. Insofar as it was known to him, the only actual material

which would be of any value in determining its nature are telephoto photographs which are now in the possession of engineers at Wright Field, Dayton, Ohio. How detailed and how clear these photographs are, he was unable to state. He stated that one report has been received concerning a collision of these missiles with another aircraft. This report, according to him, took place a short time prior to the report of numerous discs over the United States, and the report emanated from Czechoslovakia. This report was that a Czechoslovakian transport had collided with some unidentified missile while in mid-air over the ocean, and that said missile and said transport had been completely disintegrated without recovery of parts or survivors from either. It was the belief of Mr. 'E' that this undescribed missile was perhaps the same type of thing as the flying saucer. Another factor of notice, according to Mr. 'E' and as is portrayed by the photographs it would appear that the missiles can be maintained at a certain altitude above the contour of the ground. This could be done by means of some type of radio altimeter or radio control. Naturally, the path of the missile is not in exact parallel to the contour, as its purported great speed would create considerable lag in its flight. Another factor worthy of note, according to Mr. 'E' is that it is normally reported as being seen at tremendously high altitudes and always traveling in a straight line. He stated that he himself observed, on one occasion, a single vapor trail coming from some type of aircraft at unbelievably high altitude, which vapor trail extended from horizon to horizon in a perfectly straight line. He observed the vapor trail while it was in the process of formation and states that it was completely unlike any vapor trail he had ever observed before in all his experience with the Air Force. It was his judgment that whatever created the vapor trail was traveling at an unbelievably tremendous speed. This, together with reports that when close to the ground, the missile travels at speeds which make possible visual observation of its actions, would reflect that there is some ability to control the speed of these missile as well as the altitude.

"Mr 'E' concluded that this matter, while still purely a matter of great concern to the military establishment of this country. Great efforts have been expended by the service to determine just what the nature of these missile might be and, upon so determining, decide whether or not an adequate defense can be established. He also stated that it has given impetus to the

research being done by the Air Force in their own program of nuclear energy for the propulsion of aircraft to develop guided missiles. He also advised that insofar as was known to him, there absolutely was no connection between these missiles and the fact that they were observed close to Oak Ridge, Tennessee. He stated that this was perhaps, and probably, a matter of coincidence and they were seen in this area merely as they were seen in forty-six of the forty-eight states of the United States during the month of July when so many reports were being received."¹⁶

Special Agent McSwain added:

"This information is being submitted to the Bureau for whatever value it may be, and no further action in the matter is being contemplated by this office, unless advised to the contrary."¹⁷

Although Mr. "E" was denied access to all available UFO evidence, his view of things no doubt was a fairly accurate picture of what Air Force Intelligence knew and believed.

D. M. Ladd, an important official with the FBI, perused with care the document detailing the thoughts of Mr. "E" and summarized the contents for J. Edgar Hoover's inspection. On January 24th Ladd's summary with various sentences underlined by hand, came back from Hoover's desk.¹⁸ Apparently the Chief was becoming amenable to renewed Bureau involvement.

The "bouncing" meteor:

The arrival of a letter from a former pilot of the Transport Command on January 4th at the University of New Mexico office of Dr. Lincoln La Paz initiated some discussion about unusual meteors. It seems that the pilot had observed a strange meteor back in January 1946, while flying over France. Sitting in his cockpit he glanced at the horizon and happened to see a meteor streak by. To his astonishment the meteor passed over the horizon and then reappeared because, as best as he could tell, it described a tiny hyperbola of perhaps one degree altitudue and then fell again from sight.¹⁹

Dr. La Paz consulted with Dr. H. E. Landsberg about the "meteor that ricocheted." Landsberg did not buy the idea the meteor in question "bounced." He favored instead the idea the meteor had merely been following a "wave-like path," nonetheless he urged:

"in view of the fact that --- (deleted) important observation came to attention only by accident, it seems to me that immediate steps should be taken to interrogate all former and present ATC pilots (especially all pilots now flying in Germany or

elsewhere in Europe) in order to determine whether additional observations similar to that made by --- (deleted) have been made. Would it not be possible to require all pilots and co-pilots to report in detail on any fire-balls they may observe which they have any reason to believe are definitely or possibly non-meteoritic?"²⁰

The UFO story up to 1949 was certainly strange to say the least, and as the years passed things would get downright eerie at times. While the more sensational interpretations of the "eerie" events are of course open to rigorous challenge, there can be little debate about the effect "eerie" events had on various people, be they scientist or layman. And, one has to also admit, even after a close scrutiny of the evidence there often was no way to reduce to zero the chance of a startling interpretation of being true. (This writer will let others explore such ideas however.)

The hoodoo in the Bermuda skies:

On January 29, 1948, a British Tudor airliner "Star Tiger" with 40 passengers and crew vanished off Bermuda. What made the vanishment even more unusual was the fate of its sister ship almost exactly a year later.

On January 18, 1949, a British Tudor airliner, the "Star Ariel" with 13 passengers and a crew of seven, vanished without a trace 200 miles off Bermuda. A B-29 was dispatched on a special search mission on January 24th. At midnight while cruising at 15,000 feet altitude and at a position of 29 degrees 30 minutes north, 67 degrees 29 minutes west, and on a course of 050 degrees, the pilot of the B-29 perceived a red glow off the left wing. At first the Aircraft Commander, Captain Mattatall, thought that the Moon was peeking over the horizon, but after several minutes he was convinced the glow must be something other than the Moon, perhaps even a ship on fire. Intrigued, Captain Mattatall banked in the direction of the red light mass until he brought his plane around to a course heading straight at the crimson patch on the ocean. The pilot later told his superiors:

"On approaching the red light it was observed as a dark red glow, 1 to 1½ miles wide, based on the water, resembling burning oil with a phosphorescent red light rising to 2,500 to 3,000 feet altitude. Also from heading of 350 degrees and 180 degrees two columns of white light, ½ to 1 miles apart, resembling searchlight beams and extending upward through approximately ¾ of the red light mass. The beams were at a slight angle toward each other. Captain Mattatall estimates that if the white light beams had extended above the red light mass to an altitude of 10,000 feet, they would have intersected. It was also observed that the red light mass gave off enough light

to illuminate the surface of the water and the bases of surrounding clouds with a dull red glow."²¹

The manifestation caused a stir within Air Force Intelligence. The Cambridge Electronic Field Station was called in by the Air Force's Engineering Division, and even more important, some other people and organizations were mentioned as possible sources of consultation.²²

The "Von Karman Advisory Group and H. P. Robertson:"

Besides Cambridge, Air Force records state that it was suggested:

"... that the data available be handcarried to Dr. Hynek of the Ohio State Research Foundation. In the event that no opinion can be obtained from that organization, the incident should be coordinated with Dr. H. P. Robertson of the Norman Bridge Laboratory of Physics, California Institute of Technology. Dr. Robertson is chairman of the Committee on Technical Intelligence of the Von Karman Advisory Group. Another possibility would be Dr. George Valley of M.I.T.²³ (Dr. Valley was a member of the Scientific Advisory Board of the Chief of Staff, U.S.A.F.)."

Also:

"Log of the Meteorological station at Hamilton, Bermuda, could not be obtained without causing undue comment. It was, however, viewed by Major Savage, Station Weather Officer..."²⁴

At first the experts felt there was a close relationship between the red light mass and aurora glows and it was requested that: "Captain Mattatall and his crew be interviewed to determine whether the appearance of the nearness of the light mass could have been illusory caused, possibly, by a combination of cloud and water reflection and the intensity of the aurora."²⁵

Interviews with the officers and airmen of the B-29 aircrew revealed:

"All crew members who observed this phenomenon stated that it was no illusory and did not seem to be a reflection. It seems hardly feasible that it was an illusory condition caused by the Northern Lights as there was no visible display of them at that time."²⁶

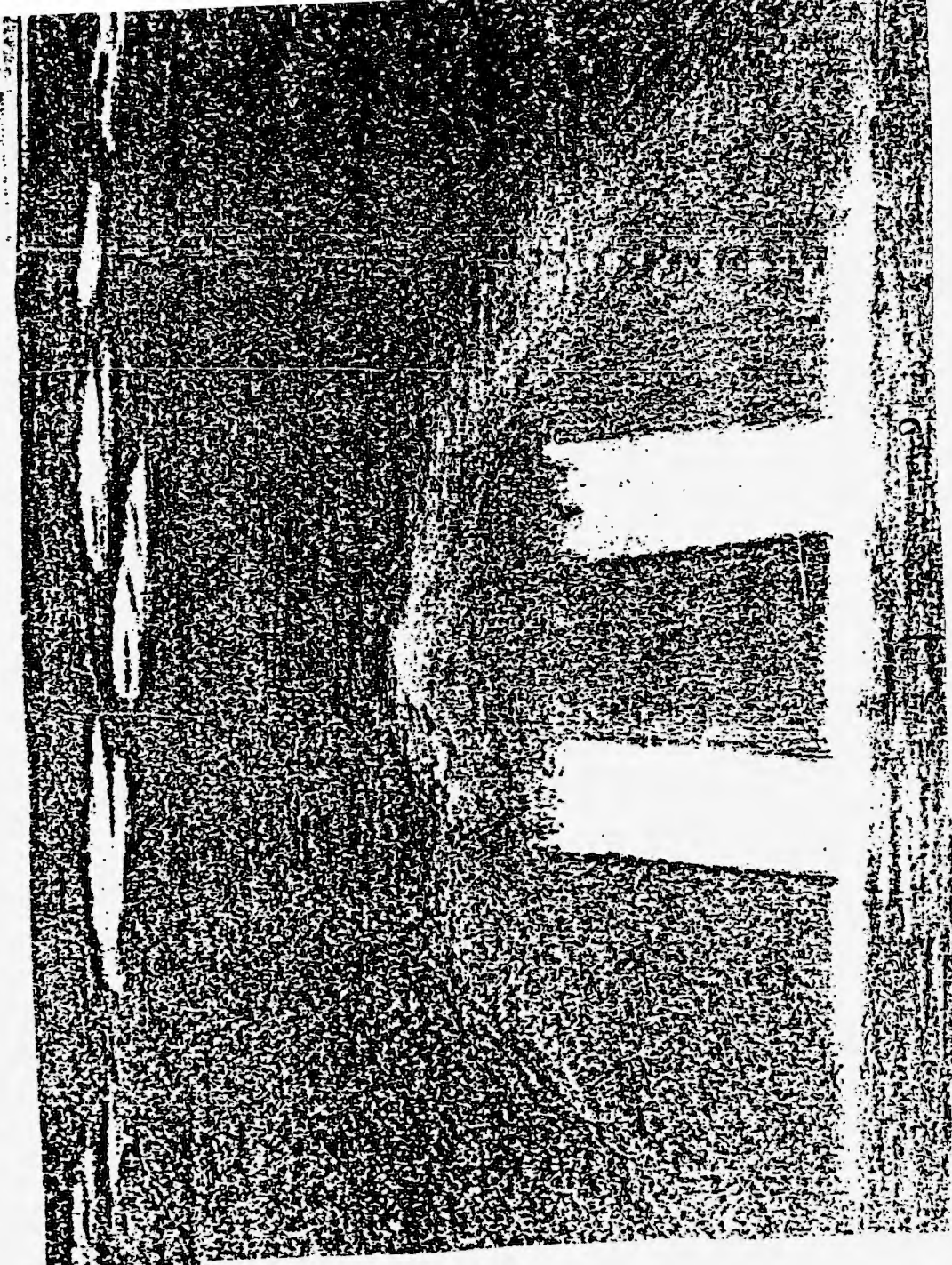
"No valid explanation, either natural or man made."

The Cambridge Electronics Station had some extensive comments for Air Force Intelligence:

"In reference to the phenomenon reported in subject letter, no glow of the size described has ever been reported previously to the knowledge of the scientific personnel of this Directorate at such low altitude. Due to the auroral activity in the area at the time it is natural to assume that the phenomenon is in some way related to the aurora, however the fact that this has been observed on the surface of the water rather than high in the atmosphere is difficult to explain. The orange color seems to indicate an excited state of oxygen, however, with the small mean free path which exists at the earth's surface, a terrific electrostatic field would be required which is not likely. If such a field existed due to some freak condition, static charges should have been noted by the B-29 personnel when approaching the glow. This would have produced corona from propeller tips and wing tips which should have interfered with radio communication.

"At the present time no nuclear reaction is known to the personnel of this Directorate which would produce ionizing particles of sufficient energy to excite the oxygen line in such a manner. The highest decay energy known is that resulting from nuclear fission of U-235 and Pu-239 which is in the neighborhood of 200 MEV. It is estimated that several thousand MEV should be required to produce this effect, and to date this has only been observed in cosmic rays which are not sufficiently dense enough nor localized enough to produce the effect. Even a controlled rate of fission would liberate heat which should have been readily detectable by the crew of the B-29 through heat radiation effects.

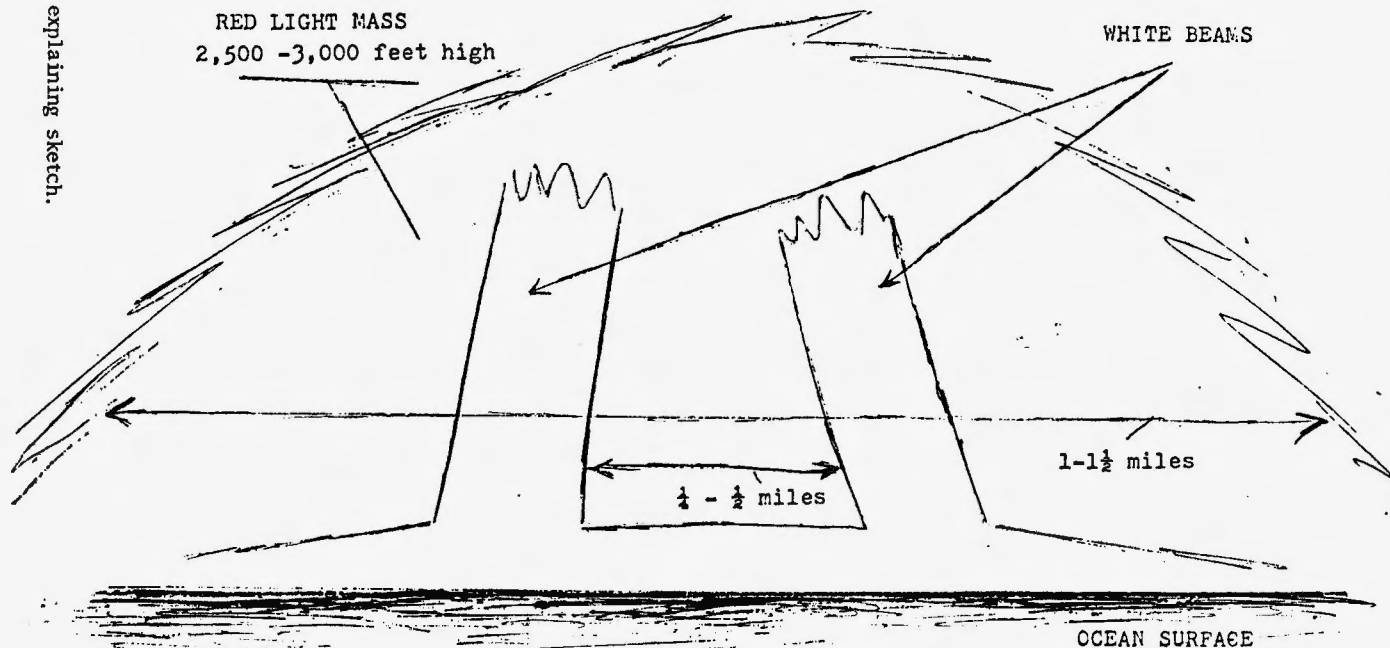
"The two white 'searchlights' beams seem to indicate higher excitation states of oxygen, nitrogen, and other atmospheric elements which are apparently in the zones of maximum potential gradient. It would be natural to assume that there is a possibility of the effect being man made, however, again the voltage required to produce a discharge between two antenna masts of a surface craft should cause breakdown of the air rather than a glow discharge at atmospheric pressure. There is a possibility of exciting the gyro-magnetic frequency of electrons in the earth's magnetic field which should not be overlooked. By establishing a strong electromagnetic field at approximately 1.5 mega cycles, and using the earth's magnetic field in much the same manner as a cyclotron magnet, it is theoretically possible to establish electron orbits in the atmosphere which would accelerate the electrons to the point where ionization of the air (and consequently glow) would take place. This has been proposed as a means of exciting the upper atmosphere on high altitude rocket flights in order to obtain atmospheric composition by spectrographic



The Atlantic manifestation.
a. Official sketch by witnesses.

CLOUD LAYER

b. Diagram explaining sketch.



plates. The possibility of doing this at sea level pressure has not been considered to be possible, however, due to the short mean free path of the electrons at low altitude.

"The fact that various atmospheric gases have absorption bands in the microwave region is also well known, but no known cases have been reported of exciting such molecules to the point of ionization at sea level pressures. Hydrogen in water has been resonated at relatively low frequencies due to their magnetic moment, however, a magnetic field of several thousand gauss is required for resonance.

"In conclusion, no valid explanation, either natural or man made, can be found for a logical explanation of this phenomenon. A copy of the sketch and descriptive material will be placed on file in this Directorate in the hope that some valid explanation of further observations may be found."²⁷

A number of government experts assisting the Air Force at this time seemed to be very interested in geomagnetic phenomena as it affects atmospheric physics.* They may have been on to something, but just what is not clear in Air Force records. While there may be no significance to the Atlantic manifestation, the phenomenon did help to bring out the forementioned official interest.

Perhaps of great importance is the mention of Dr. H. P. Robertson and Dr. George Valley in the case records, which gives some clues to what their relationship was to the Air Force's UFO investigation. Dr. Robertson, it appears, was not a disinterested scientist picked at random in January 1953 to chair an important UFO review panel. Evidently he had been advising the Air Force on the UFO problem for years.

Anyway, a Dr. R. Penndorf of the Atmospheric Physics Lab. Base Directorate for Geophysical Research, expanded a bit on the suspicion that the manifestation seen by the B-29 aircrew was somehow connected with aurora glows witnessed in the Bermuda region (which were the same colors: red-orange and white) by calling attention to the fact that sunspot activity of the bipolar type had been prominent January 16 - 20 on the solar disk, and that a severe geomagnetic storm commenced abruptly on January 24th, building up to a climax the night of the 25th.²⁸

*Claude Poher, a scientist that was a member of a UFO study group established by the French government in May 1977, believes there may be a statistical correlation between the vertical component of the geomagnetic field and UFO events in France. He used data from France's Chambon-la-Forêt Geophysical Station. Similarly, a J. Accetta suggests that perturbations of solar winds and the ionosphere may correlate with UFO activity.

Shades of Chiles-Whitted!

On January 27th at a location between Cortez and Braderton, Florida, something akin to the famous Chiles-Whitted "sky monster" of July 1948 was spotted by an Air Force officer and his wife. The officer had an engineering background and had been assigned to the Air Material Command, Intelligence Department, Air Documents, from December 1945 to September 1948.

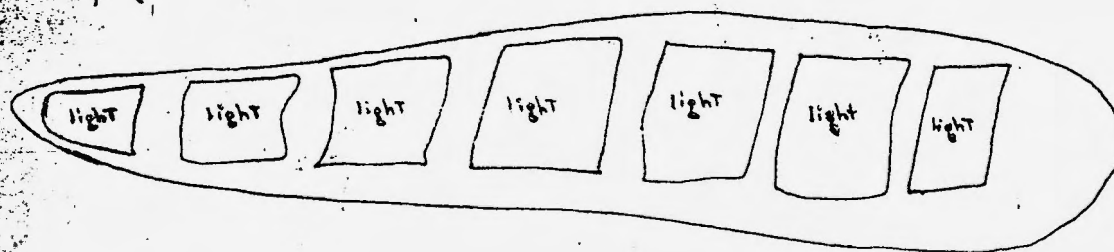
For a half hour the night of January 27th, the forementioned witnesses watched something strange moving about in the sky to the northwest about eight miles away. It was nearly midnight but the heavens were clear and the shape vaguely discernible, it resembling a "cucumber" in shape and having a "double row of lights" which had the appearance of a "row of lighted windows but brighter." The object apparently was also rocket propelled, because as it diminished in size as it receded into the distance, it looked like a ball of fire "with sparks flying from it." This exhaust looked like: "sparks from a burning log but appearing in a rhythmic pattern."²⁹

The Air Force's narrative summary said the pale red thing became: "... exceptionally bright at split-second intervals... (and that)... during the second sighting the sparks appeared more pronounced and were apparently pulsating at approximately one quarter second intervals. Sparks appeared to be in an irregular pattern after turning to the final course of approximately 270 degrees but were in mainly an inverted 'V' with sides at a 30 degree angle."³⁰ Also: "Bouncing appeared to start after turn to final 270 degree course. Object climbed erratically in 'bounces of approximately 2,000 feet' with occasional rapid losses of altitude of approximately 4,000 feet..."³¹ This fantastic dance, not a rare occurrence in UFO reports, resulted: "... in an overall climb till lost to view at an altitude of the order of 40,000 feet."³²

More emerald enigmas:

A massive effort was launched immediately after January 30th to ascertain the identity of a "green meteor" spotted that day. Unlike the "green meteor" reports of the fall and winter of 1948, however, there was a great number of witnesses of which over a hundred were personally questioned by Dr. Lincoln La Paz and/or military agents. The latest "green meteor" came out of the northwest and disappeared in the sky to the southwest of Roswell, New Mexico. A priority teletype report flashed to Wright-Patterson from Kirtland Air Force Base via Washington, D.C., right after the aerial object's passage, stated that its personnel would investigate the possible impact point, if any. Kirtland felt compelled and added to its message to Wright Field: "...local commanders perturbed by implications of phenomena."³³

Dr. La Paz's comments on the phenomena after many inquiries went:



Direction of Travel →

UNCLASSIFIED

The "bouncing cucumber" over Florida on January 27, 1949.

a. Sketch by witnesses showing the "cucumber with windows."

"In this report the descriptions of the object agree with those given for previous sightings, except that as the ground track of the object is approached, the color shifts from green to red or orange."³⁴

The January 30th case was Dr. La Paz's last field investigation, for he added a paragraph to his report on the incident that said:

"With the present report, the writer's participation in the OSI's investigation of the puzzling fireball question must, to his regret, terminate. During the time I was on leave of absence from the University of New Mexico, I was glad to donate my time and services to this investigation. Now that I am again serving as Head of the Department of Mathematics with a full-time teaching load, it is impossible for me to continue co-operating with the OSI."³⁵

Dr. La Paz's departure was not total; occasionally he sat in on meetings to discuss the latest developments in the meteor mystery.

With so many UFO sightings near highly sensitive scientific/military installations, the idea that spying was going on was not so far fetched. This meant the FBI was again thinking of entering the picture.

Renewed FBI interest called for an update on the status of the Air Force's UFO investigation. After making a number of inquiries, a FBI official authored a review of the UFO problem for the top men in the Bureau.

"Protection of Vital Installations."

J. Edgar Hoover's FBI produced a document dated January 31st, titled: "Protection of Vital Installations." Designated Bureau file #65-58300, the document dealt with an overview of the UFO problem as it related to installations engaged in secret work for the Pentagon. Prepared by an official in the FBI, the document says some interesting things. One is the definite mention of the UFO mystery being a "top secret" matter, an assertion underlined by the document's author. The document read:

"At recent Weekly Intelligence Conferences of G-2, ONI, OSI, and F.B.I., in the Fourth Army Area, Officers of G-2, Fourth Army have discussed the matter of 'Unidentified Aerial Phenomena' otherwise known as 'Flying Discs,' 'Flying Saucers' and 'Balls of Fire.' This matter is considered top secret by Intelligence Officers of both the Army and the Air Force.

"It is well known that there have been during the past two years reports from the various parts of the country of the sighting of unidentified aerial objects which have been called in newspaper parlance 'flying discs' and 'flying saucers.' The first such were reported from Sweden, and it was thought that the objects, the nature of which was unknown, might have originated in Russia.

"In July 1948 an unidentified aircraft was 'seen' by an Eastern Airlines Pilot and Co-pilot and one or more passengers of the Eastern Airlines plane over Montgomery, Alabama. This aircraft was reported to be of unconventional type without wings and resembled generally a 'rocket ship' of the type depicted in comic strips. It was reported to have had windows; to have been larger than the Eastern Airlines plane; and to have been traveling at an estimated speed of 2,700 miles per hour. It appeared out of a thunder-head ahead of the Eastern Airlines plane and immediately disappeared in another cloud narrowly missing a collision with the Eastern Airlines plane. No sound or air disturbance was noted in connection with this appearance.

"During the past two months various sightings of unexplained phenomena have been reported in the vicinity of the A.E.C. installation at Los Alamos, New Mexico, where these phenomena now appear to be concentrated. During December 1948, on the 5th, 6th, 7th, 8th, 11th, 13th, 14th, 20th and 28th, sightings of unexplained phenomena were made near Los Alamos by Special Agents of the Office of Special Investigation; Airline Pilots; Military Pilots; Los Alamos Security Inspectors; and private citizens. On January 6, 1949, another similar object was sighted in the same area.

"Dr. Lincoln La Paz, a Meteorologist of some note, has been generally in charge of the observations near Los Alamos, attempting to learn characteristics of the unexplained phenomena. Up to this time little concrete information has been obtained. There have been day time sightings which are tentatively considered to possibly resemble the exhaust of some type of jet propelled object. Night-time sightings have taken the form of lights usually described as brilliant green, similar to a green traffic signal or green neon light. Some reports indicated that the light began and ended with a red or orange flash. Other reports have given the color as red, white, blue-white, and yellowish green. Trailing lights sometimes observed are said to be red. The spectrum analysis of one light indicates that it may be a copper compound of the type known to be used in rocket experiments and which completely disintegrate upon explosion, leaving no debris.

It is noted that no debris has ever been known to be located anywhere resulting from the unexplained phenomena.

"Recent observations have indicated that the unidentified phenomena travel at a rate of speed estimated at a minimum of three miles per second and a maximum of twelve miles per second, or a mean calculated speed of seven and one-half miles a second, or 27,000 miles an hour. Their reported course indicates that they travel on an East-West line with probability that they approach from the Northern quadrant, which would be the last stage of the great circle route if they originated in Russia. When observed they seem to be in level flight at a height of six to ten miles and thus traveling on a tangent to the earth's surface. They occasionally dip at the end of the path and on two occasions a definite vertical change in path was indicated. These phenomena have not been known to have been sighted, however, at any intermediate point between Russia and Los Alamos, but only at the end of the flight toward the apparent 'target,' namely, Los Alamos.

"In every case but one, the shape of the objects has been reported as round in a point of light with a definite area to the light's source. One report gives a diamond shape; another indicated that trailing lights are elongated. The size is usually compared to one-fourth the diameter of the full moon, and they have also been compared in size to a basketball, with trailing lights the size of a baseball. On no occasion has sound been associated directly with the phenomena, but unexplained sounds have been reported from Los Alamos. On two occasions reports have been received of the sighting of multiple units. Some nine scientific reasons are stated to exist which indicated that the phenomena observed are not due to meteorites. The only conclusions reached thus far are that they are either hitherto unobserved natural phenomena or that they are man made. No scientific experiments are known to exist in this country which could give rise to such phenomena."³⁶

David Z. Beckler, Chief, Technical Intelligence Branch, composed a memorandum to Project SIGN investigators regarding the reported passage of some unusual meteors over Tennessee the year before:

"It is requested that all pertinent details of the so-called Memphis incident, of May 7, 1948, 2:00 to 5:00 p.m., be furnished the Research and Development Board for use by the RDB Committee on Geophysical Geographical Sciences."³⁷

From "SIGN" to "GRUDGE."

Nine days later a code name change of Wright Field's UFO investigation was made. Project "SIGN" became Project "GRUDGE." There were other changes too, changes not officially documented. February 11th marked the day when a "new view" became prevalent at Wright Field headquarters. The "new view" was that people were just "seeing things," thus efforts were to be directed toward dealing with a "psychological phenomenon."

UFO expert Edward Ruppelt asserts that many of those working for Project SIGN were not transferred to project GRUDGE, a project that was just supposed to do recording and evaluating and in general keep things down to a "minimum level." Most of the personnel transferred, he made clear, were those that had become committed to one theory or another to explain UFO's. Such people were "purged" and replaced by more "objective" Intelligence Officers. Others left in due course because of the normal rotation of their tour of duty. And some, the civilian experts, like Dr. La Paz, quit of their own accord. With so many fresh faces at Wright Field it wasn't that hard to handle UFO reports in the following way: "Everything (Ruppelt claims) was evaluated on the premise that UFO's couldn't exist. No matter what you see or hear, don't believe it."³⁸

A shuffle of personnel was still not enough. A document reflecting the "results" of Project SIGN was needed, not only for the record, but as Wright Field expressed it, for those: "...higher echelons, and others who are required to assess the possibility of a threat to national security presented by the sighting of such large number of unidentified flying objects."³⁹

Such a document was prepared, from which the foregoing quotation was lifted. It was designated "Unidentified Aerial Objects Project SIGN," Technical Report No. F-TF-2274-1A, and was drawn up by L. H. Truettner and A. B. Deyarmond of the Air Material Command, USAF.⁴⁰

Classified "Secret" like all Project SIGN files, the document was not completely declassified until 1967 but some portions were made public right away, something we will deal with later. Significantly, this document admits on the very first page that Project SIGN collected little data and never obtained "...sufficient information to permit definite, specific conclusions to be made."⁴¹ It stated plainly that there was no "final" project SIGN report.⁴² There was also no mention of the controversial "estimate of the situation" of August 5, 1948.

This lack of anything "final" was offset a bit, however, by an appendix. Before going into that, the reader may recall that a preliminary Air Force inquiry into UFO reports during the summer of 1947 produced a document filed on September 23rd of that year. The document went into some detail as to the apparent characteristics of the unexplained flying objects being reported.

With that in mind we turn to the "appendix C" of the project SIGN Technical Report. Taking into account information gathered by project SIGN since its inception, George E. Valley of MIT, the same gentleman mentioned in regards to the manifestation in the Atlantic, offered a summation of data on file. The summation was given as "appendix C" in the Technical Report. A comparison with the September 23, 1947 document is of interest.

A simplified breakdown of reported UFO characteristics as given in the 1947 inquiry results compared to the 1949 project SIGN Technical Report appendix:

1947	1949
Results of Preliminary studies by Air Force Intelligence and Various Engineering Divisions. Submitted September 23, 1947.	Summary of Project Sign by G. E. Valley, member of the Scientific Advisory Board, Office of the Chief of Staff, United States Air Force.
UFO Characteristics:	UFO Characteristics:
1. Often fly in formation 2. Disc-shaped, flat bottom, domed topped 3. Silent 4. Size of a normal aircraft 5. Metallic appearance 6. High rate of climb 7. High speed 8. Highly maneuverable, possibly remotely or manually controlled 9. React to normal aircraft with evasive action (10.) (No mention of "ghost rocket" type UFO) (11.) (The question of hostility was not considered)	1. Often sighted in groups, formations 2. Asymmetrical, like a turtle shell 3. Silent 4. Various Sizes 5. Metallic appearance 6. High acceleration 7. High velocity (8.) (No comment on maneuverability) (9.) (No comment on reaction to normal aircraft) 10. Rocket-like UFO's 11. Officially no damage attributed to UFO's⁴³

Although there is considerable agreement between the summation of project SIGN and that of the 1947 preliminary inquiry, there are, nevertheless, a few interesting differences.

Valley recognized that there existed reports of "rocket-like" UFO's, but he made no mention of two things given in the 1947 paper. By September 1947 it was recognized that UFO's being reported seemed "highly maneuverable," therefore possibly "remotely or manually controlled," and that UFO's "reacted to normal aircraft with evasive action." The Gorman case would have fit in well here, but as we have seen, it was quickly "explained" just before the end of project SIGN. And while the

Valley summation acknowledged that rocket-like UFO reports existed, it made no comment about this spectacular "space-ship" type of object.

The rest of the 1949 document is limited in scope. Under the heading "possible explanations," Valley discussed how certain geometrical calculations might be utilized, such as the reported fluttering of some flying discs which might provide a clue to the object's actual dimensions. Much ado was also made of possible UFO propulsion systems, an emphasis that was not surprising since it was more in line with Valley's academic training, plus the fact that there existed a solid clue to work with, i.e., a 1947 UFO report of a compass twitching while flying discs carvorted overhead. Over the years, Valley would not be the only one to become enamored of the possibility that UFO's made use of the earth's magnetic field. Perhaps this is why there were so many geomagnetic experts associated with the Air Force's UFO study.

Dealt with very briefly are other possible explanations for the UFO's such as: natural terrestrial phenomena, hallucinations, secret devices of either foreign or domestic origin, and even the weird idea that UFO's may be unknown "atmospheric animals!" The most exciting idea he saved for last, that of possible alien visitors, and it turned out that Valley echoed in a condensed form essentially the same views contained in the earlier RAND evaluation; nonetheless he did not end his comments endorsing any particular hypothesis. To his credit he recommended that the Air Force continue to collect data and to make its investigations better by obtaining experts in optics, by conducting studies in mass-psychology, and by being more precise in its interrogations of witnesses.

The February 11th "new view" of Project GRUDGE apparently was felt right away by the FBI. The Bureau learned on February 14th the following: "...higher military authorities advised that it was believed that ultimately it would be found that the phenomena in question has a natural explanation."⁴⁴

Within 48 hours one of the better green fireball reports came in! The official narrative summary of this case read:

"Dr. ---- (deleted) was interviewed on 16 February 1949. ---- (deleted) said that at about 1840 on 14 February 1949, as he and his wife were returning from Gallup (New Mexico), they crossed the long bridge about two miles due east of Ganado. As they came up the hill west of the bridge, where the road heads south, a brilliant white light was observed in the sky directly in front of the car, and somewhat above the horizon. The object appeared to hang stationary, then fell in a slight curve to the west. Mrs. ---- (deleted) said that the object

was slightly greenish color. Both agreed that the object had an orange tinge as it fell, and that sparks appeared to trail off the object, both while stationary and as it fell. Dr. ---- (deleted) said that his first reaction was that it was an airplane on fire, and that he had so reported to the Arizona State Police."⁴⁵

Now that Dr. La Paz had left the green fireball investigation, it left a gap. A teletype message was flashed by New Mexico authorities to Wright Field reflecting that fact while requesting aid:

"Local sensitive installations concerned. Scientific personnel and equipment unavailable this office. Dr. La Paz only consultant engaged full time academically University New Mexico. Request assistance and/or advice. Please reply."⁴⁶

There was no reply!⁴⁷ Kirtland OSI then tried sending data direct to the Pentagon, but Wright Field finally sent a message reminding the boys at Kirtland Field that Project GRUDGE had sole responsibility for the UFO problem. Kirtland authorities got around that by sending reports both to Wright Field and Washington.

"The Requirements Memorandum:"

The office of Major General C. P. Cabell, USAF, Director of Intelligence, Office of the Deputy Chief of Staff, Operations, issued something entitled an "Air Intelligence Requirements Memorandum Number 4" on February 15th. The form was to improve reporting procedures. As for the actual sighting details, the observer was to fill out an "Air Force Form 112." The memorandum was the responsibility of the interviewing agent and urged him to seek answers that might prove to be clues to the type of propulsion of the UFO, the performance, origin, etc. Also, data of the witnesses' background was to be obtained. The memorandum was widely circulated with copies reaching: "...Commanding Generals of the Major Air Commands throughout the world, all U.S. Air Attaches, the Director of the CIA, Special Assistant for Research and Intelligence of the Department of State, Director of GSUSA, the Chief of Naval Intelligence, the Commander of the U.S. Coast Guard, and the Director of the FBI."⁴⁸

Perhaps the key element to this memorandum was the weight given to the term: "Unconventional Aircraft" which helped prompt attention when the document was read by other commands.

About this time the FBI received the latest about the status of the UFO investigation: "G-2, 4th Army, has now advised that the above matter (green fireballs) is now termed 'Unconventional

Aircraft' and investigations concerning such matters have been given the name 'Project GRUDGE.'"⁴⁹

"Conference on aerial phenomena:"

A conference on the green fireball problem was held at Los Alamos on February 16th. In attendance were representatives from the Fourth Army, Armed Forces Special Weapons Project; the University of New Mexico; the Federal Bureau of Investigation; University of California; U.S. Air Force Scientific Advisory Board; Geophysical Research Division, Air Material Command, USAF; and the Office of Special Investigations (IG), USAF. Of these representatives, three names were well known. There was Dr. Lincoln La Paz of the University of New Mexico; Dr. Edward Teller, a scientist who would later become known as the "father of the H-bomb" for his significant contribution to the development of that ghastly weapon; and Dr. Joseph Kaplan, a world renowned authority on the physics of the upper atmosphere.

The conference was convened 1:00 p.m. in conference room P-162 at the Los Alamos Scientific Laboratory, Los Alamos.*

Present at the conference were the following people:

4th Army	:	Major Winn Major Godsoe Captain Neef
AFSWF	:	Commander Mandelkorn
University of New Mexico:		Dr. La Paz
FBI	:	Mr. Maxwell
USAEC, SFCC	:	Mr. Morgan Mr. Newburger
University of California:		Dr. Bradbury Dr. Holloway Dr. Hoyt Dr. Manley Dr. Reines Dr. Teller

The first remarks concerned security:

"Mr. Newburger opened the conference and stated that the subject of Aerial Phenomena was classified

*A sound recording of the proceedings was made for the official record. A 24-page transcript of the conference, quoted in this booklet, is not a perfect document since the government typist could not make out every word.

Secret within the meaning of AF 380-5 and comparable appropriate regulations of the Navy and Air Force, and that all personnel at this meeting were properly cleared. Mr. Newburger then introduced Captain Neef who briefly outlined the purpose of this meeting.

"Captain Neef: It all started back in December 1948, when we first received some reports from some airline pilots that these green fireballs were sighted. At this stage we had no idea what to do with it or what it was. We approached Dr. La Paz who has been assisting us, gratis, since that date. Almost over two months now that he has been assisting us, so in order to have you get the facts as they are to a scientist, I'll let Dr. La Paz explain these things as we have found them. Then you can give us your opinion from there; that is what we are interested in.

"Dr. La Paz: I would like to review what is observed in the case of a conventional meteorite fall. Not that I have any hope of saying anything you don't already know, but because I regard the observational evidence observed by the conventional meteorite falls as providing the necessary background for what is now observed. Meteorite falls (for next minute or two, Dr. La Paz' comments on record drowned out by noise from ditch digger immediately outside conference room) ... Because of sound phenomena primarily, the fall of a large meteorite will cause fright among human beings necessarily but primarily among animals, of all kinds. The fact follows, by a meteorite falling into the earth, is as you would expect, one at random--in azimuth and elevation. If the radiant white (?) is known, you can predict the minimum angle with respect to the plane of the horizon at which the meteorite path has been observed. There is no choice, as far as the for direction when meteorites fall in at random. I'd like to contrast now, at this time, this fact with what has been observed by some individuals here at the conference and by many of the AESS inspectors, UAL pilots, special agents, goodness knows how many other categories of people. I choose to describe the only one of the incidents that I was personally a witness to. It is the only one of the incidents that I am in a position to vouch for on the basis of experience, dating from 1915, as a member of the American Meteor Society, was most certainly not a conventional meteorite fall. It was the so-called Starvation Peak incident on the night of December 12, 1948. Time of observation was around 9:02 p.m., plus or minus 30 seconds. This fireball appeared in full intensity instantly--there was no increase in light.

Its color, estimated to be somewhere around wave length 5200 angstroms, was a blue green, or yellow green, such as I had never observed in meteor falls before. The path was as nearly horizontal as one could determine by visual observation. We have a photograph which might be some liters (?) of departure from horizontal. The trajectory was traverse at, I am inclined to believe, constant angular velocity. Just before the end of the path there was the very slightest dropping of the path, that is the green fireball broke into fragments, still bright green."

"Dr. Teller: And all this time the intensity was approximately constant?

"Dr. La Paz: All the time, as far I could determine. The Eye, of course, is admittedly a very crude photographer.

"Dr. Teller: How long did the phenomenon last?

"Dr. La Paz: Almost exactly two seconds. We have in the reports here, I brought the complete file with me and would be glad to circulate them, duration measures in relation to all observations. Few of these, however, I believe, were determined under as favorable circumstances as the duration of the Starvation Peak incident. Possibly I should go back and review the situation a little bit. Because some report, issued by the AESS, would certainly suggest that I was primarily responsible for starting this whole matter. I am glad that Captain Neef corrected that impression. Actually, I was on an investigation in regard to the green fireball observed on the night of December 5th at the time the December 12th incident occurred. As a result I was keyed up; I was watching; I had a stop watch with me and a transit. We got into position and made measures, transit measures, on azimuths and elevation readings; that is, we made a duration check, certainly within not more than two or three minutes after the incident occurred. To that extent, I believe, it is possibly the best observed of any incident up to the time of the January 30th fall.

"Dr. Manley: How did you have time to use the transit?

"Dr. La Paz: The transit was in the back of the car. The moment the car was parked at the side of the road, we yanked the transit out and set it up and began measurements. We were in motion at the time but we were able to get a very good check of what we observed at the time on the road near Starvation Peak. We had a

clear view of the sky to the Northwest and the West, and the object was so low over the horizon it was possible to compare it not only to the stars with which I am familiar, but with respect to mountain peaks that were also visible. To continue, that duration was about two seconds. This is when I say that 90% of the duration determinations have been made in the case of the green fireballs have given durations right in that vicinity. Whereas you take, say, 100 ordinary meteor observations you will find the widest diversions in durations. You could take the same lesson as observed by 100 people--possibly that's a better example--and there would be wide variations in the estimates of duration.

"Dr. Manley: Did you correlate the azimuths with...?"

"Dr. La Paz: No. There is an azimuth factor here which I am going to talk to you about, that relates to the choice of direction. Both our observations are single station observations, so that it becomes impossible from the observation measure to determine the real path of the fireball in the atmosphere. There have been only three cases where that path was determinable. One, as I recall it, was that of December 12, another December 20, and finally, of course, the very large fall on January 30, 1949. I'll give you some particulars on the paths. I do want to observe, however, that even our station observations present a puzzling characteristic to the meteorists. If you plot what are called, by meteorists, the admissible protozons for a green fireball that has been observed, you will find that they give, on the average, an approach almost to the North, come down from the North, they are restricted to (?). Now what about the real paths? I gave some indications as to the lowest...of the path. The green fireballs are unusual in this respect: probably that they are horizontal or nearly so, or that their horizontal path is traversed very low down in the atmosphere. In the case of the real paths for which we have been able to make determinations so far, those are graphical determinations, as we have not taken the trouble to use Chablis (?) methods or... because the observations are regarded as necessarily too rough for mathematical niceties. Those paths are traversed at elevations between 8 and 10 miles. I defy you to find anywhere among meteorists, examples of conventional meteorites that move over long horizontal paths reserving nearly constant angular velocities and therefore, on the average, constant linear velocities, at elevations of the order of 8 to 10 miles. There is a good deal of evidence that may be of value I would like to summarize at this stage:

the fireball which I personally witnessed on the night of December 12, 1948, was not, in my opinion, a conventional meteor fall. Since the majority of the green fireballs have been reported to me, both before and after this December 12th occurrence, possess almost all the properties which I personally observed on the night of December 12th, I feel that in all probability they are not themselves conventional meteor falls. Now, the easy way out of this is to conjure up an unconventional type of....meteorite, which comes in practically parallel to the great atmospheric resistance that is experienced on a level, it reserves nearly constant velocity over paths say of the order of 25 to over 100 miles, as in the case of the green fireball on January 30th. It should also have the property that it is a very remarkable hue of green, not heretofore observed, to my knowledge, in the case of any conventional meteor falls. And finally, and this possibly is the most implausible feature of all, that although it produces light visible at distances of the order of 400 miles, it doesn't make a sound. In the case of January 30th fall, due to the fact that there had been observations within a minute after the fall occurred and pursued the investigation over a distance of 1,600 miles--Texas mud primarily!--in some ten day's time interviewing literally hundreds of people, we saw not one substantiated account of noise produced by the meteorite fall.

"Dr. Teller: May I ask how many people have seen this one big meteorite?

"Dr. La Paz: This is difficult to say. (Record blank for short period)... Finally, in the interrogation of such persons, we invariably interview them as individuals. We tried a family of eight the first night as Major Gedsoe will recall, interviewing.... and it became apparent at once that there was some sympathetic influence and we broke it off after I think the third or fourth observation and thereafter interviewed separately. If you were to search, however, the independent observations of those who were widely separated, possibly stations of the order of 100, there were probably 100 different stations reporting.

"Dr. Teller: What area did that cover?

"Dr. La Paz: All of New Mexico, all the Western half of Texas. I have a map here with some indications of possibly the extent of that.

"Hoyt and Bradbury: Wasn't that Sunday the 24th?

"Dr. La Paz: No, it was definitely Sunday the 30th. The newspapers have very helpfully concealed most of the relevant facts relating to this fireball. First, they described it as a fireball, second, they ... (record blank for few seconds) ... interfered with OSI and wasn't able to do that this time. This is the field map and will give in various colors, dots and pencil dashes, etc. all of the observations obtained on the Texas search.

"Dr. Teller: All relate to one fall?

"Dr. La Paz: Yes. These lines are drawn from points of observation. The center, as you see, of points of appearance is somewhere Southwest of Amarillo or South-southwest of Lubbock, Texas. At the time this was drawn, before I was able to make out transit measures in the vicinity of Albuquerque, this was the best apparent path of the fireballs. These other ink lines are independent, made by other groups of observers working on the same problem. (record blank again for a short time) This transit, unfortunately, had a needle with a bent piston and it was not discovered until much later that we were getting faulty records. Independently, I have redetermined, using the best equipment available at the University, the lines of sight at all points where the faulty transit had been used. I have plotted on this map only observations that I made personally or such observations as I have every reason to believe were made by experienced personnel, for example UAL flyers, who took the trouble to make measures, or possibly civil engineers.

"Dr. Teller: You mean these people right afterwards or shortly afterwards took an instrument and tried to measure it?

"Dr. La Paz: That's right.

"Dr. Teller: This is the point where it disappeared?

"Dr. La Paz: And normally, all you will get is the point where it disappears because the average man is aware of the fact that when he is not warned, he makes a very inaccurate observation. Having been warned by the appearance of the fireball, his attention is fixed and he watches where it bursts, where it explodes, where it disappears. So I say this is a much better determination. This beginning point, although you notice the...of line here, is reasonably satisfactory.

"Dr. Teller: Are these points here observers of the test, locations of those observations?"

"Dr. La Paz: Usually a dotted circle like that indicates a reported sound observation. We use this symbol: a circle is a report, whether or not the observation includes azimuth of elevation, light appearances, is indicated by the presence of a cross. If it is blacked out, both light and sound were heard. Now every one of those things has been disproved. In the area where the end point was located, oil well drilling was underway, dynamite blasting in connection with setting up of rigs, some nitro being used apparently to shatter....in every case we were able to exclude the possibility that the noises reported actually were tied in with the meteorite fall. At least let me say, in my opinion, those noises were excluded. In certain cases, independently, that was confirmed by a visit of Lt. Ryan of the Roswell Group of the OSI. For instance, the best case of all, near Amherst (?), or noise--the observer, it's true, was only a ten year old boy, but he wrote a very intelligent letter, and it is well known that children, like animals, are more sensitive to sound than people who have listened for too many years, say, to the radio. It appeared conceivable that he had actually made a sound observation, but Lt. Ryan went to Amherst (?) found that even three members of the family were not able to confirm his observation of noise and no one in the town, some 300 or 400 persons I think in all were estimated to have been visited, no one at all had heard a sound, so I think that Mike probably heard the same dynamite blast as had been reported by Miss Winson Didpasture--I didn't take that name out of the funny papers, it actually exists.

(Continued examination of the maps with minor interrogations concerning markings.)

"Dr. La Paz: With one exception, in the case of Roswell, there are two types of sound associated with meteorite falls and, I assume, associated with the motion of any very high velocity projectiles or missile through the air. There are what physicists would call reasonable sounds, and while he would not acknowledge it, simultaneously will the appearance of a meteorite, you hear a meteorite, the physicist will refuse to believe the observation. Nevertheless, there is a tremendous volume of evidence indicating that these anomalous sounds occurred. Anyone who does field work in the search for meteorites will come across possibly 10% of the observers who say that, although my attention was attracted by hearing, a whining noise, a whistling noise, I looked up and there was the fireball. In other words, this anomalous sound apparently

attracts attention to the occurrence. I have an article by Brandon...one of the sons of the man who first investigated the great crater out in Arizona, and a chap by the name of Hart (?) with whom I am not personally acquainted by a physicist apparently at Princeton, in which they attempt to justify the occurrence of anomalous sound. They express it roughly in this fashion. Electromagnetic radiation is set up by....

(Dr. Teller excused to answer the phone.)

"Dr. La Paz: You wouldn't believe it anyway. However, electromagnetic radiation is rectified somehow by the...changed into sound that can be heard and, therefore, you can hear the meteorite at the same time you see it fall. In the case of the Roswell observation apparently that occurred. We have a group of five men--they were near a steel smokestack--and everlast one of them swears that they heard at the same time they were watching the green fireball go by, a noise like, say, a gasoline blowtorch. This is certainly not an ordinary explosive sound. One more thing in connection with the noises. In every other meteorite fall, any one meteorite fall that I have investigated--that covers many years--I have never yet found an occasion of a detonating fireball, without meteorites coming down at all, in which there was not some evidence of alarm of animals. Chickens will fly around to try to get under cover. Dogs will howl and try to get into the house. Horses will run away. In the case of the Texas fall, in spite of the tremendous area in which the light was observed, we found not a single case in which the animals were disturbed. We knew of the case of a farmer who had, in sunny Texas, a pond with a five-inch layer of ice, who reported that a meteorite had fallen through the ice on that pond, had broken a hole. Captain Neef here put on a pair of rubber boots and very thoroughly searched the pond without finding a meteorite. Even in that case there was no evidence of alarm by the animals. I believe with that summary, I'd better cease operations and have you ask questions.

"Question (source not identified): How many observed falls?

"Dr. La Paz: I'd like to classify those into three groups. I would say that there are ten instances that definitely merit the most serious consideration. They are strictly analogous to the green fireballs of the night of December 12th. On top of that, there must be something of the order of twenty more

which are so well reported, from Los Alamos for example, that although the green fireballs observed showed small....the nature of the fireball.... many observations of observers who paid practically no attention to the sky at any other time in their lives and now when they see a really bright light, they report it. You will find a great many instances of bluish-white fireballs. In my opinion, those falling vertically and leaving trails, are simply ordinary shooting stars. Of high intensity, that is, what we call fireballs, a blue light, are not in any sense to be associated with the green lights. Those three categories then.

"Dr. Manley (?)

"Dr. La Paz: In the case of the two green fireball paths, determined from Los Alamos observations, in one case the Starvation Peak incident, we have an East-West motion, and then also a motion exactly parallel to...In other words, these two real paths show, I think they are the only two of the first category that show any real departure from the.... It is possible to explain that. It is quite evident that we have no case of assurance that both groups of observers, the observers at Starvation Peak and the observers at Los Alamos, saw the same point ofso that if we were to merely ask what are the limits within which such real paths might fall, it turns out that it might be as short as 12 miles instead of being 25 miles long, and in that case it would be directed almost directly to the North; it would come down very nearly within 2 degrees, 5 degrees say, of the North. In the case of the Texas observations, whereas I have indicated and the maps show, we have many observations by trained observers, motion is clearly almost directly North to South. I have been informed that there are reasons for regarding the....out there (ditch digger)....and you notice that this passes reasonably close to Lubbock. The same is true of the two earlier fireballs, those of December 12th and December 20th. They both passed--one passed centrally over Los Alamos and the other about six miles North of the center, but this would not be true....(ditch digger). One point that possibly should have been mentioned earlier in this: I was the more interested when Captain Neef came to my office and brought the December 5th incident to my mind because very much earlier I had been contacted first by....White, Director of Texas Observers, from a Dr. Pruitt, Director of Northwestern Section, City Section, of the Meteor Society. I had been informed that earlier occurrences of bright green fireballs, not too far from the Hanford area. When Captain Neef

came in with reports of green fireballs near Las Vegas and particularly when he disclosed that there was a Los Alamos near Las Vegas--the real Los Alamos--it had much interest.

"Dr. Holloway: Are there any reports of these from other installations, such as Troy, New York, or places like that?

"Dr. La Paz: I raised that question and I know of no other cases. I mean to say the areas from which these reports come, as in one, for such evidence as....they do not relate to the daylight occurrence of horizontal moving, bright white objects--some in Memphis, Tennessee in May 1948--that is not too far from Oak Ridge. They relate to the Hanford area as far as the Pruitt observation go, and to the observations that I've mentioned here in the Las Vegas-Los Alamos area....A very curious thing has come to light during these investigations. I published not long ago an article in Science Illustrated on the recovery of the....Norton, Kansas, meteorite. The time of that fall, February 18, 1948, the rumor got around somehow in Northern Kansas and Southern Kansas that it was a Russian bomb, and it was aimed at the geographical center of the United States which is not very far from....Apparently, a great many people gave credence to that rumor and were delighted when we finally recovered meteorites up there and proved it wasn't anything but an ordinary meteorite fall. Incidentally, it did not have the characteristics of the green fireball we're talking about here. There was an air transport pilot who made a most curious observation while flying near Cherbourg on January 16, 1946. His observation was the observation of a bouncing meteor. After what I've been telling you about the green fireballs, you probably think it not unreasonable that a meteorite should bounce but to the meteorological mind that seems very hard to swallow. The interest is that one of your own persons here at Los Alamos, and confirmed at least in part by four other persons, saw one of the green fireballs come down and then glide off horizontally. The bouncing meteorite is manually explained by having it form, say sinusoidal (?) motion lying in about the plane at which the observer was looking so that he first saw the high point of the curve or the peak. The next time it was at the peak, it was so far away that the altitude was very low, which will give you the appearance of a bouncing meteorite. I offer that as a possible explanation. Of course, he may have landed in Paris before he made the Cherbourg flight and then we should disregard the testimony entirely!

"Mr. Newburger: Dr. La Paz, you mentioned, I believe, at one of our other meetings that they had compared the color of this with certain metals?

"Dr. La Paz: That's right. Initially we could only ask them what they thought it looked like. And we got such interesting responses that we eventually carried around a spectrum chart and allowed everybody to make his own choice. Of course, the use of the spectrum chart was unnecessary if they have a color like one lady who had around her neck a green scarf which corresponds to something between 4900 and possibly 5300. Most of them will fall very close to 5218 which is about the color you get when you have copper salts in the Bunsen burner. I checked with Dr. Regener on that and asked him if an alloy had been used, like, say, copper beryllium, if there would be any change in that hue, and he has assured me there would not. He said it would still give approximate appearance of beryllium copper....You will find in probably 1350 of the 1500 only the merest trace of copper occurrence. There are a few meteorites like....in South Dakota, where little veins of copper have been found, making up possibly .4 of 1%.

"Dr. Bradbury: Is this true of all meteorites?

"Dr. La Paz: It's true in any category. Even in the irons, the presence of copper is very hard to detect, very little...(ditch digger). I don't know whether you gentlemen could suggest an easy way to obtain green fireball spectra or not.

"Dr. Teller: What is the geographical solution of this?

"Dr. La Paz: Another man would probably answer that best of all.

(Looked at more maps with some talk that was not audible.)

(Mr. Hoyt confirmed the green hue of the green fireball he had seen on the night of December 30, 1948.)

(Record dead for a minute or two.)

"Mr. Hoyt: I would have said approximately as far above the mountain as the floor of the valley was below the top of the mountain. I felt that would give me somewhere in the neighborhood of 20,000 feet or thereabouts. It was about 5 minutes to 6

on my way up here. I have a feeling that it had a downward path. I mean it was going South.

"Dr. La Paz: But it was not strictly horizontal?

"Mr. Hoyt: No.

"Dr. La Paz: We have some discrepancies in that regard. Some 95% of the observations indicate a very nearly horizontal path. One from Forth Worth, Texas, which was not made by....but measured by them, indicates an elevation of 6 degrees at the beginning and $2\frac{1}{2}$ to 3 degrees at the end.

"Mr. Hoyt: That's what I would have said, but remember that the ridge would give you the sensation that it was taking a downward path. Duration--at the time I would say it was approximately 3 seconds.

"Comdr. Mandelkorn: How does the calculated velocity of these objects compare with the known velocity of meteorites?

"Dr. La Paz: Apparently very much lower: that is, more than the ordinarily observed meteorite falls. First, to observe in the cast of an actual meteorite fall you have a relation of the velocity from the auricle of....atmosphere down to the impact velocity which may be very....but it isn't fair to compare the velocity of the green fireballs to the impact velocity of....(ditch digger and everyone talking at once).... Not with the trajectory velocity of the meteorite. After a meteorite....the fragments fall about like a bomb. Their resistance just about balances out the.... and as a result, they come down with about the velocity of a falling bomb, a little less because they do not have the same ballistic coefficient.

"Dr. Bradbury: This is not an excluded (?) direction like the....?

"Dr. La Paz: Due to the fact that they have a curve, and practically all times during which darkness is with us, why they tend to come in from that direction?

"Dr. Bradbury: Would it be a shower?

"Dr. La Paz: That was my first explanation, as a matter of fact. Geminid showers with a maximum of December 10 to December 12. The first evidence that I had was Sgt. Kinsley's report on December 2 and since often the forerunners of the showers will....I thought we were talking about Geminid showers except that I never observed a

green Geminid. Matter of fact, a check of observations made at the time found that there were 414 observations since 1915 and there wasn't a since one, Geminid or non-Geminid, for which any hue of green was mentioned. Later, for instance on the night of December 12, you could watch the Geminid come down....and notice that they came in at high angles to the horizontal, whereas the green fireballs....incidentally, we have another interesting piece of evidence there--Dr. Sherman Smith from the University--I mention an observation that he made on the same night. The time of the observation is in dispute. According to Dr. Smith it was probably as late as 10:50. He had to wait for a long time, he said, for his wife to pick him up after the concert was over. Mrs. Smith, however, times it around 10:10. Whatever the time, within one hour or say an hour and a half after the green fireball and the horizontal path were observed, we have another extremely bright blue fireball come out of the Geminid. Apparently you can have very large Geminid falls of the color estimated by a trained....checked with the spectrum charts.... is quite distant, I assure you, from the green fireballs.

"Comdr. Mandelkorn: How good is the coverage of the observers of the American Meteor Society as far as the top-half of the United States is concerned?

"Dr. La Paz: It depends a good deal upon overcast conditions. I would say, however, that this year the Eastern half of the country has offered phenomenal observing conditions. One of my reasons for withdrawing from Ohio State was that after 13 years there I had given up hope of ever seeing a meteorite shower because during the season of maximum intensity of the falls we had heavy overcast, snow and so forth. On the other hand, this year they're had reasonably open skies. I have obtained no reports from people in that part of the country. We thought we had a definite check because Harvard College has now installed a photographic meteor station near or possibly inside the White Sands Proving Ground. Since the 12th of December, you correct me if I exaggerate here, we have been trying to determine the color and other characteristics of the ten or twelve brightest meteors observed at that station. We still don't know what they saw. We know they were operating and they made some photographs, but Captain Neef can probably tell you the red-tape channelization impediments that have dropped out any determinations better than I can.

"Captain Neef: Well, it's one of those things; it's a Navy contract and they are not at liberty to divulge what they find, so we have to go through Washington, the Bureau of Ordnance, to get the information.

"Comdr. Mandelkorn: I believe I can get that information; as a matter of fact, I feel very certain that I can. Just a matter of approach.

"Dr. La Paz: I feel certain if I had contacted Dr. Fred Whipple, for example, I could have obtained it, but his other occupations keep him away from that installation. And actually I felt as a meteoritist, it might be wise to have OSI appeal for information rather than to ask for it directly.

"Captain Neef: They did tell us they weren't using film which were going to be susceptible to these colors.

"Dr. La Paz: But, of course, they are making constant visual observations and if you were able to determine visual observations 100 miles from Los Alamos don't reveal the occurrence of bright green fireballs, I think it would be significant. I don't know why they should avoid the Southern-half of the State.

"Comdr. Mandelkorn: Let us say if these had been at extremely high altitudes, they would have been visible from White Sands without any question.

"Captain Neef: This one of the 30th definitely was visible from White Sands because Commander of Holloman and his wife and one of his assistants and his wife saw it from there.

"Dr. La Paz: On the other hand, you have experience like that of Professor Talbot who is now in charge of the optical trajectory section down there, an experienced astronomer, a member of the American Meteor Society. I talked with him about this, and he has observed nothing out of the ordinary. I don't think anybody, I mean in the line of green fireballs, in this area has been observing as much as he does. I don't see how he could miss sighting some of these.

"Question: What explanation do you have for this?

"Dr. La Paz: The only explanation is the one I gave in the beginning and had my ears promptly boxed for. I think these are defensive maneuvers

of some higher U.S. Command and they are practicing in the neighborhood of the regions they are going to defend, so naturally your localization of light near the atomic bomb installations, but boy, am I scolded for that! Even Dr. Kaplan of the FAD tells me no, no, the FAD would know all about it, and they don't have any facts.

"Dr. Bradbury: Is this the physicist Kaplan?

"Dr. La Paz: Yes. Kaplan is my old boss. He was chief of the operational analysis section when I was....director there....During Kaplan's visit to the University of the New Mexico, where he was lecturing, we called a conference with Major Godsoe and other interested parties. He gave a brief resume of the observations that had been made to date. Now, Kaplan is one of the charter members of the American Meteor Society, and he said certainly these could not be conventional meteorite falls. He, of course, mentioned as other people do who have not gone into it more thoroughly, the possibility of abnormal types of meteorite falls, that might come in from a peculiar direction or might drop at very low level, but I don't think he was able to explain the absence of sound.

"Dr. Teller: Did I understand you correctly that the velocity of the object appears to be some 50 kilometers per second?

"Dr. La Paz: No. In the case of the green fireballs something between 3 miles per second and 12 miles per seconds. Depending, you see, if you choose one ruled map or another. For example, let me illustrate how that affects the velocity determination. This is the one I think possibly best represents the observations of the case of the fireball of December 12. That is the path I assume the Los Alamos observers saw the same point of the curves that the Starvation Peak observers did, likewise to the point of disappearance. If we deny that possibility, the path might shorten to this dotted line (Dr. La Paz worked on maps with Dr. Teller, explaining paths.) Dropping from 25 to something between 11 and 12 miles. The January 30 observation gave us our first long path.

"Dr. Teller: How long was it?

"Dr. La Paz: The first observations we had here indicated....That was because of errors in the determination of the azimuth at the point of beginning, made due to the faulty transit they used. But that's correct that the path runs over 100 miles.

"Dr. Teller: And how long does it take?

"Dr. La Paz: Duration estimates range from 5 to around 14 seconds. I think that a 10 second average is about the best, that would give about 10 miles per second.

"Dr. Bradbury: Green is not an unknown color in meteors?

"Dr. La Paz: If I were to rewrite the report that I first presented on that subject, instead of saying 'rarely observed' this color green, I think I would now say 'never observed.' You sometimes see green, Dr. Bradbury, but it is a blue-green. The blue-green color is rare, but it is observed. For instance, Dr. Sherman Smith's observation was essentially a blue-green, but on the blue side.

"Dr. Bradbury: What other color do you see in meteors?

"Dr. La Paz: Whites chiefly. If you look closely and without interference from outside lights, yellow, oranges, and reds.

"Dr. Bradbury: But it's apparently a yellowish-green we're talking about here. If you can see a bluish-green, you can also see yellows and whites.

"Dr. La Paz: There is some defect, possibly in the vision, that requires a pretty high intensity in that yellow-green before it's noted in a meteor fall.

"Dr. Bradbury: Looks like green?

"Dr. La Paz: Yes it does, that's perfectly true. Now here's a peculiar property of those yellow-green fireballs--some people will refer to them as red. The only explanation that I can think of is they report afterwards that they see what is an exposure to a very green-bluish light rather than the light itself--I don't know if that is correct. And, incidentally, due to your observation, I don't know how to explain the inability of meteor observers to report this renegade color, but I simply know it doesn't occur. You go through long lists, like those of the American Meteor Society, you will find, I imagine, not 1 in 100 where a green is mentioned. Even in the case of the....?showers, where you have large numbers of very bright colors--let me recall something that all of you must have seen. The....shower of October 9, 1946--anyone here who saw that? There were large numbers of extremely bright fireballs at that

time. Kaplan himself recalled that they were blue, maybe blue-green, but never yellow-green. And I observed those under very favorable circumstance--we were flying at about 20,000 feet in a B-29. We had no absorption effects at all. They definitely did not show hues of green.

"Dr. Bradbury: You mentioned the noise problem also. The noise occurs only when the meteor itself blows up, breaks up?

"Dr. La Paz: No, that isn't strictly true. You have, in addition to the hollow sound, the normal sound of the breakup of the....you have headwind; you're near the path. You get a real shock; for instance, we haveapparently up by that headwave, shock wave, in the case of the Norton County Fall. And then from the turbulence and reflections all the way along the path, you will have a rumbling which may endure not for the matter of a tenth of a second, but for minutes, and they're real rough.

"Dr. Bradbury: But these occur fairly close to the trajectory?

"Dr. La Paz: No. In the case of the Norton fall again, they were heard clear down to....City. Shakes buildings that far away. The....fall was heard up to 300 miles from the point of impact.

"Dr. Bradbury: Large number of observations....

"Dr. La Paz: No, there again I checked very carefully because I was concerned. I am trying desperately to give a logical explanation to the absence of sound. I have found in the literature only three cases where no detonations, no rumblings were reported. One of these is the Belgium observation in 1855, and I think should be discounted because meteorites hardly existed at that time. Some falls occurred and were not reported at all. The other two are reasonably recent observations--one in 1921 and one in 1922. They occurred, however, in the deep South where negroes, I think, were the only observers. Even there, the whizzing of the meteorite as they fall through the air, was reported. I know of no case of an actual meteorite where at least the whizzing of the falling body coming down through the air has not been reported.

"Dr. Bradbury:?

"Dr. La Paz: Meteorite falls, I believe that was the way you phrased it? In the case of a shooting star, of course, you never hear a thing because the entire mass is very kindly vaporized before it gets, say, within 50 miles of the earth....Not only noises, but accompanied by such noises that persons or animals are really frightened out of their wits. For example, we have a beautiful case where two horses killed themselves--in the Norton fall--they may have been felled by meteorites, but I'm inclined to think that the noise frightened them until they dashed into a ditch....Animals go crazy.

"Comdr. Mandelkorn: Do you think it unusual no fragments are found?

"Dr. La Paz: I certainly do. And I think it unusual, not only in the case of the green fireballs, but in view of the fact that a great fall, like the....fall of October 30, 1947, wherefor the first time we detected a bit of the interest on the part of the military, there too we recovered nothing. October 30, 1947, about 4:48 in the afternoon there was, what appeared to be, a tremendous meteorite fall over the reservation area--the Four Corners Area. We got there within a very few hours, had excellent observations, went back time and again, exhaustive ground search, CAP people in airplanes, we had a radio centered, we had radio controlled jeeps and a lot of people out walking around--not a trace. I can't give you a color on that because....

"Comdr. Mandelkorn: Ordinarily, when phenomena of that nature occurs, you are able to recover some material?

"Dr. La Paz: Yes, some material is recovered almost always. If proper search is conducted by Gill Field Corps of Intelligence Unit; Dr. Lansberg of the Research and Development Board, very kindly interested himself in the problem and the air searchers resulted not even in the discovery of a broken branch. The region is heavily forested. If branches had been broken, I think they would have been detected. I haven't classified that particular fall, however, with the green fireballs and for this reason: that left a train. Another thing which I might have mentioned--a normal meteorite fall....will produce a long enduring train visible by day and night. Luminous by night and by day, illuminated by the sun. In the case of the irons, it will be very faint, but it'll be there if you look for it. In the case of the

Four Corners Fall, that train was observed and I'm inclined to believe that it might have been a conventional meteorite fall. In the case of the green fireballs, to my knowledge, no such train has been observed. That question is always asked of people--did you observe a long enduring train; their replies were always negative.

"Comdr. Mandelkorn: Then you would say there were 10 incidents which are analogous to the green fireballs, with reports checked by a sufficient number of independent observers, that there is no doubt whatsoever of their occurrence?

"Dr. La Paz: That's right.

"Comdr. Mandelkorn: Then there are 20 with some deviations, two of these probably are related to the green fireballs....

"Dr. La Paz: I believe two of those incidents I mentioned occurred before the 5th of December. A very remarkable one of the 4th of August--note that again is very close to the time of....meteor shower....From late in July on and my report will be producing quite a number of these...., but it is physically impossible with this particular observation from near....Orgeon....

"Dr. Bradbury: Then their directions were wrong?

"Dr. La Paz: As a matter of fact, we can't tell because they were single observations. Maybe I should pass that letter around, but it is, I believe, the first detailed report on what might be characterized as a typical green fireball. After the Oscar....incident of January 1, 1948, was merely a remarkable green flash, which might have had some other interpretation.

(Dr. La Paz showed some letters around the table, there was general talk--not able to be picked up individually.)

"Major Godsoe: The basic purpose of this meeting is: we want you to find a meteor!

"Mr. Newburger: Have the military--anyone from the National Defense establishment--given us anything? Sent out any conjectures about this thing?

"Major Godsoe: No, most of the military authorities think we are crackpots; that is,

except for the Army Air Force, which is taking an active interest in details.

"Mr. Newburger: The Air Force does have the primary interest in this gadget?

"Major Godsoe: Yes, the Air Force is the gathering, reporting agency for this phenomenon.

"Comdr. Mandelkorn: I'd like to remove that temporary statement about the Armed Forces Special Weapons Projects; we aren't laughing....(record blank for a minute or two.)

"Dr. Bradbury: None of us are experts in this field, so we essentially have to believe what we are told. I suppose if you try to look for logical explanations, there are probably some.

"Dr. La Paz: I would like to ask one question here--unless you feed power into a body moving into a horizontal path, can it preserve essentially a horizontal trajectory? A plane does it; meteorites don't do it; shows curves as the energy falls off. This thing apparently ignores air resistance and gravity and goes blissfully on its way....

"Dr. Teller: As far as straightness of the path is concerned, if you have a meteorite that you have observed for 10 seconds, and in these 10 seconds it has gone a distance of 100 miles, it will have fallen in this distance 1/3 of a mile and now I should like to dare any observer to tell a curvature of this kind--because you are completely unprepared for the phenomenon.

"Dr. La Paz: As it slows down, it curves toward the bottom.

"Dr. Teller: But apparently before it has happened, slowed down too much or exploded or something, and then it has disappeared. Now the.... point is, of course, if it has no power it will slow down, but I do not know how quickly you would have to estimate that; furthermore, the rate at which it slows down will depend very much on the question whether it has been at a 10 mile altitude or a 20 mile altitude.

"Dr. La Paz: The elevation estimates are very concordant on these, and I doubt that you will be able to change that elevation of 8 to 10 miles by very much. These are the path observations that I have mentioned.

"Dr. Teller: Well, can you say....do you think anything can be said about that?

"Dr. La Paz: I doubt it. The eye, of course, is not a good speedometer. You can't detect a change. At least, I did not in the one observation that I made, and no such change has been reported. In the case of those who observed the green fireballs say that near the end of the Texas fireball path of January 30 it was noted that the fragments moved out leisurely to the point at which there was apparently less velocity, as shown by them on the green fireball itself. May I mention, however, that in the case of the normal meteorite fall that curvature in the path, the transverse vertical, is one of the most apparent. You see that in the case of any large, ordinary detonation fireball fall even though it may not produce....there is a tendency to curve.

"Dr. Teller: What about total light....How does the brightness compare to the brightness of the meteorite that come from a meteor?

"Dr. La Paz: In the case of the Texas fall, this is very rough; I didn't see it, I can only base an estimate say on the comparisons that were made with the moon as to size and total intensity. In the case of the Texas fall it would certainly be comparable to--it was one of the brightest observed fireballs in total intensity....In the case of the Starvation Peak incident, we can compare it with Venus which was conveniently located, and it certainly was of stellar magnitude minus four, possibly a little brighter. That comparison was made almost immediately after the observation....

"Mr. Hoyt: It was very bright and clear that night....

"Dr. Teller: You saw it at 6 o'clock?

"Mr. Hoyt: At five minutes to six. Very, very clear night.

(Ditch digger--in between ditch digger, a few coherent remarks.)

"Dr. Manley: In 1945 or 1946 I observed practically the same thing as in this letter. We thought it was a roman candle. Definitely light green in color. I am still worried about the fact that they don't report any green color in these falls.

"Dr. Bradbury: Lack of noise, lack of.... the lack of these things would be equally astounding for any material object.

"Dr. La Paz: Dr. Kaplan suggested the possibility of the same sort of phenomenon that he could produce experimentally in his laboratory.... and he tells me under certain conditions he can produce a globe or lamps of yellow-green lightHe conjectured for a minute that might have some relation--an artificial aurora.

"Comdr. Mandelkorn: As long as you brought that up, Maj. Johnson has a letter I obtained from Gen. Bunker which may be pertinent. Gen. Bunker transmitted the information you've heard to the Air Material Command, and in reply recieved a letter from an Air Force General who recently returned from Alaska. I'll let Dr. La Paz read this.

"Dr. La Paz: This is closely related to what I was talking about. It begins: 'Dear Bunker: Received your interesting phenomena of 1 February and promptly turned it over to Howard....now saddled with the responsibility of clues. Regard as coincidental that on dates you mention Gen. Carroll was in Fairbanks, Alaska, and on his return related that he had never seen before in his life such a beautiful technical display of Northern Lights. Maybe what these people have seen is a reflection from the....of these pyrotechnics. So far as we know, it is still phenomena and not material. Best regards, Paul.'

"Dr. La Paz: May I make the observation that if you look in the chapter by....you'll find that in Alaska where this observation was reported, there are very few times at this season of the year when you can't see an aurora.

"Dr. Teller: I have the feeling that it iseither a discovery in physical psychology or....

"Dr. La Paz: I thought that psychological element would come in here?

"Dr. Teller: Here is a slightly irrelevant question--you brought in the flying discs. What is the connection?

"Dr. La Paz: I didn't bring in the flying discs.

"Mr. Newburger: I brought in the matter of the flying discs because the Air Force, as I understand, now have classed the flying discs and these fire-balls in one category.

"Captain Neef:The only indication we have is a letter from MAC in Washington, Saturday where they indicated the old project SIGN is now project GRUDGE, which includes the phenomena observed in New Mexico. They knew of this meeting and were going to send a representative.

"Dr. La Paz: I just asked Mr. Hoyt a moment ago how he would compare the brilliance of this object with that of an aircraft flare. He said they were of comparable magnitude. I think that was definitely ruled out....

"Dr. Teller: I understood that a reasonable explanation of the flying discs--and I suppose that it is generally known--is that they are meteorological balloons....I understand that in quite a number of cases there have been very close directions established....I must say that from what you have said it certainly sounds like everything else but meteors. The thing that impresses me is your evidence of the horizontal flight. Meteors do not usually come in like that....

(Mumbled talk between Drs. Bradbury and Teller.)

"Captain Neef:Change of direction such that we haven't been able to follow it up yet. One of our men was returning Sunday night when our tower operator saw this object to the Southwest from Kirtland Field and....Arizona reported it was Southeast from them. From the Kirtland tower it was a bronze color. The time checks, but fromArizona it was green until it turned straight down and veered going....

"Dr. La Paz: Dr. Teller, may I mention this one other instance that shows maybe why I have more concern than is merited by the evidence I am able to present. I deal with Vic Regener and I know that the physicist doesn't like to work with anything that can't be photographed. I share that view but a meteorist is not available sometimes to photograph shooting stars, even the conventional type. During the war, I was acting as Director of the Ohio Section of the American Meteor Society and all at once we began to get

reports of large numbers of stationary fireballs; not moving. The burst was there, but no motion. Now one who observes normal conventional fireball falls is aware of the fact that not one out of say five hundred shows actual fixity; there is always motion. So, this looks very, very strange. Of course, you all know what those stationary fireballs turned out to be. They were the self-destructive devices on Japanese paper balloons operating. You had a hydrogen filled sphere with a two-crown mask of magnesium flashlite power. And when the magnesium and the hydrogen went off together, you could see it for a long way. We got stationary fireballs but they certainly were not meteoritic. My experience since I was suspected of psychological apparitions at the time I reported these stationary fireballs to, for example, Dr. Kaplan, my experience with....led me to be very cautious about taking my concern....but at the same time I feel that we shouldn't be too hasty in giving a natural explanation to these green fireballs.

"Dr. Teller:but I would like to ask, these phenomena are apparently quite bright, more luminous than normal meteorites?

"Dr. La Paz: Well, the January 30th one was: I would say that about the one I saw on December 12. That was a very bright fireball, but not extraordinarily so.

"Dr. Teller: What is the chance of getting pictures?

"Dr. La Paz: I refer to the one attempt that was made on the night of December 19. We set up a photographic patrol--the AESS, as you probably know, has been interested in this problem. They brought a lot of speed graphics and so on and set them up. Mr. Maxwell, a member of the group....and they were able, I think the night before, to photograph a bright Geminid. But on the night of the 19th nothing was observed. The next night, however, the night of the 20th there was an incident which I believe might have been photographed, but by that time the equipment had been disbanded and nothing was obtained. I should think, with proper coverage, say 10 to 15%, of these should record themselves provided you do not use green insensitive....and film such as the....

"Dr. Teller: Is there any possibility of having a wide coverage of the sky triggered by a photo cell?

"Dr. La Paz: I have discussed that, for example, with Dr. Reneger, who has been very much interested in the apparatus, and his answer is more or less in the negative. I understand that Cornell University--Gartline of Cornell--has produced some sort of photo-electric triggering device which has been used in this connection. I wrote him about it, asking for reprints or instructions, but never received a reply.

"Question: Do you think you are going to find film sensitive to this green color fast enough? We have some that can't be left out over 12 hours....

"Dr. La Paz: It should be possible....The conventional meteor cannot be photographed at the present time. The so-called meteorschmitts that Harvard College is now having produced at very great expense, they expect to go down to the fourth and possibly fainter. With one of those, a bright green fireball might be photographed, but they are not available.

"Mr. Newburger: Does anybody know if there were any experiments carried out in Europe, prior to the war when our last best information came from over there, along this line?

"Dr. La Paz: Not to my knowledge. I raised that question with Dr. Kaplan and he gave me some rather surprising information. Dr. Kaplan had attended the IAU meetings in Syria(?) and the Russians had a large representation there. Sufficiently large, as a matter of fact, to beat down the proposal that the IAU appoint an international committee to investigate the so-called....meteorite crater produced in the fall of 1947, February 12. On the contrary, at the Oswald, I think it was, conference of the International Geophysical Union, none of the Russian geophysicists were present. Kaplan's interpretation was that they feel so far ahead of us that they didn't think they could learn anything, and they were taking the precaution that no leak occurred.

"Mr. Newburger: Were the Germans experimenting in any phase that was possibly connected with it?

"Dr. La Paz: Well, they had the so-called stations in space....might have some attachment to it.

"Comdr. Mandelkorn: You don't have any record of experiments?

"Dr. La Paz: No, no knowledge of experiments. I have the belief that no country in the world has there been meteoritics developed as it has in Russia in recent years. Recently, the Academy of Science of the USSR has been issuing a so-called meteorite (journal) an extraordinary publication--very little work of the caliber being done by the Russians has been conducted in the United States. Apparently, there it has big support; here, it is an individual matter. Until we had some military interest in meteoritics, we were never able to found even an institute in meteoritics in the United States. The one in New Mexico is an outgrowth of application of meteoritics to determine, say, ballistic coefficients for shells of unconventional design like the proximity fuse shell with the radio in its nose, and that sort of thing. That's where we got a start. Apparently, the Russians got that earlier and have full-fledged state support.

"Dr. Holloway: How much interest would the military have if they found out these things were landing all over the country, Canada, Hawaii, etc.?Have you contacted people in the East?

"Dr. La Paz: Olivia, C.C. Olivia, President of the American Meteor Society, King, Leonard, Pruitt, Kaplan, etc. Most of them have been observing; Kaplan, I imagine, has not....is now preoccupied with laboratory experiments. I think that if anyone of the UCLA Institute of Geophysics had been observing, it would have gotten to Kaplan's ears....There are two great advantages to this area; first, you have clear skies at night and can observe them as they come down, and second, (record blank for a minute or two).

"Dr. Holloway:this was before the war. They had a telephone network which covered a fair section of the East there....a network so that your observations....I mention this to indicate, I don't know what he is doing now, but at least they may have a group of people who have been observing. May not be in a position to....green fireballs, but they might have seen them.

"Dr. La Paz: My one attempt to contact.... and unfortunately I did not approach him again for information, but someone acquainted with him should certainly ask if they have observed any of this sort of thing there.

"Comdr. Mandelkorn: Well, wouldn't phenomena of this nature have been reported to the Society, no matter where they occurred?

"Dr. La Paz: Yes, I would think so. For example, you can consult the so-called meteor notes of the American Meteor Society, and popular astronomy, they are published from month to month with the President, C.C. Olivia, Director of the Florida Observatory at the University of Pennsylvania. I've been through those very carefully. There's one single solitary case of a fireball which by one of the observers--a doubly observed fireball--so it was possible for me to....in which one of the observers mentions a green color. Not this peculiar yellow-green which most people in that work find unusual, and in the case of that the elevation determined is of the order of, oh 199 kilometers from the beginning point and roughly 100 for the end, so I think it is only an ordinary fireball; nothing unusual about it. That was the only case I found.

"Comdr. Mandelkorn: According to recent records, where the observation conditions in other parts of the country satisfactory? At least part of the time?

"Dr. La Paz: Well, I infer from the fact that we have had so much trouble out here and the East has been bragging about its climatic advantages; that probably during the recent months, they have had good observancy. I haven't attempted a full scale check on that.

"Comdr. Mandelkorn: Let's put it this way then: Have there been a sufficient number of fireballs reported in the last 60 days in other parts of the country to lead us to infer that had some of these occurred, they would have been reported?

"Dr. La Paz: I think that definitely is true. To my knowledge, as far as the contacts I've had with Olivia and so on, there was nothing out of the normal noticed in the East, and in the South, shall we say as far up as White Sands. Whether the Harvard Observatory set-up observed anything peculiar or not, I don't know. We tried right away to get that information. We were told by the gentleman in charge down there, I'm sure this will be of interest to you, that it was impossible to make an estimate of the approximate wave and angstroms without detailed spectroscopic equipment, which he did not possess. So whether the Captain actually cut out the spectrum charts and sent them to him or not, I don't know, but it was considered.

"Dr. Bradbury: Well, we're not coming up with any bright ideas for you very fast.

"Mr. Newburger: No, but as long as we have the problem presented to you, maybe by thinking on this, you will come up with an idea!....Of course, you know our entire connection with started with....(deleted name of a crackpot with Communist affiliations) back in 1946!

"Dr. La Paz: Except for the flying discs, nothing that you could say would cause me greater embarrassment! I have actually had communications from (deleted) myself.

"Dr. Teller: Your statement of the absence of sound when this thing has gone apparently overhead at the distance of 10 miles, within earshot of people.

"Dr. La Paz: That seems incomprehensive, doesn't it, Dr. Teller? I'm glad to hear you say that because that has been my feeling from the beginning. And we tried desperately to get confirming evidence whenever sounds were mentioned. No reports have been obtained.

"Dr. Teller: I must say that the admission in which one could get....typical phenomenon is something in the light of....

"Dr. La Paz: Kaplan told me he was going to get out of his old blow pressure tubes and begin experimenting as soon as he returned from the (?) UCLA, to see if he could duplicate in any way the descriptions we have given him.

"Dr. Holloway: What sound does a P-2 (V-2?) make when it goes overhead?

"Dr. La Paz: I can tell you what they make when they come down.

"Comdr. Mandelkorn: I can tell you what they make when they go overhead at the height of about 1,000 yards. But anything manmade that passes overhead at the height of 8-10 miles, at this speed, could be inaudible.

"Dr. Teller: You think it could be?

"Comdr. Mandelkorn: I think it could be. The only...(?)

"Dr. Teller: Even if it went at the speed of 10 miles per second?

"Comdr. Mandelkorn: Well....(?)"

"Dr. Teller: You see, at that time, the.... begins to come up.

"Dr. La Paz: You bet it does.

"Dr. Bradbury:(?)"

"Dr. Teller: You have to get a shock wave out of it. With a very small object the shock wave would be smaller than....I have not made calculations on it, but it's just common sense.

"Dr. La Paz: I would like to ask a question. Isn't it true in the case of the so-called light movement that you have very intense, luminous effects off them without noise?

(Talk between Drs. Bradbury and La Paz too fast and too jumbled to be transcribed.)

"Comdr. Mandelkorn: From what Dr. Teller said apparently a solid object converging with the atmosphere horizontally at about 8 to 10 miles altitude, it's incredible that it wouldn't be accompanied by some sort of sonic phenomenon.

"Dr. Teller: I would like to repeat that to try to get an estimate of the size of the object, that it would have to have in order to get sound effects, is not an easy thing, but offhand I would say--this is what I would expect--that you get a very small object, as small as an inch or smaller.

"Dr. La Paz:(?)"

"Dr. Teller: If I remember correctly, the intensity, the amount of energy that goes into a shock wave is proportional to the square of the velocity. The velocity that you have here proportional to the square of the velocity and of course, is proportional, I should think probably to the square of the linear dimensions of the object that you have. Now you have 10 miles per second.... velocity of the object that you have. Now you have 10 miles per second....velocity you have 20 miles per second, so this could be, on that count, ten times fainter--the sound would be ten times fainter. On the other hand, a meteorite that you will hear, I think....that much across....

(Too much cross talk.)

"Dr. Teller: That is something we could do right away. Now I do not know, tried to get from you information on brightness, but I would like to ask again some details....

"Dr. La Paz: The brightest meteorite fall in history, of which we have historical record, was the....fall in 1908, June 20....estimates the power, the light power, of that was of the order of 10 to the 18th power--10 to the 19th power ergs per second. In the case of the Texas fall it was probably not 100,000th as bright.

(Dr. Teller then spent approximately the next twenty minutes or so figuring on the blackboard--estimating light, speed, kinetic energy, shock wave, etc.)

"Dr. Teller: If I can just believe everything I have heard and put it together with what I theoretically believe in, it ought to be a material body--might be an electron phenomenon.

"Dr. La Paz: You see why I'm puzzled, Dr. Teller. Nothing like this to my knowledge has ever been observed in the case of meteorite drops.

"Dr. Teller: If you go to a group like UCLA or some other place where they have a good sound laboratory, they ought to be able to take the absence of sound observations--that is definitely incompatible, assuming that you know that there are....and assuming that they have heard no sound from this, they ought to be able to work an upper range upon the sight of the object which has been moving, and from these figures I would be inclined to believe the object could probably not have a heat (?) or something like one cubic centimeter. One centimeter in dimension, and that in turn would not have given the blinding effect, it was a material object.

"Dr. Bradbury: Wait a minute. I think you've left out something in light effects--you don't have to worry about kinetic energy. You can get your light from chemicals as well.

"Dr. Teller: That is correct....

"Mr. Newburger: This seems to wind up the meeting.

"Dr. Bradbury: Still don't feel that the meteor stuff is out. The puzzling thing is the long horizontal path; also absence of noise is puzzling."50

After the conference, Dr. La Paz returned to his teaching post at the University of New Mexico still convinced there was something very strange going on in the atmosphere.⁵¹ Years later when he was approached by Edward Ruppelt about the "green fireball" matter, La Paz had not changed his opinion.⁵²

Officially things did not end with the February conference. Special cameras, "meteorschmitts," as they called by La Paz, were being produced by Harvard for employment in the southwest. FBI documents, by chance, reveal something about the Harvard specialized instrumentation:

"The Geophysical Research Division, Air Material Command, Cambridge, Massachusetts, has recently let a contract to Land-Air, Inc., Holloman AFB, Alamogordo, New Mexico, for a limited scientific study of green fireballs. The results of this scientific approach to the problem will undoubtedly be of great value in determining the origin of these phenomena."53

This offshoot of the conference was Project TWINKLE, a scheme to gain more accurate information on any more "peculiar meteors" by establishing a number of cinetheodolite stations to film anything unusual in the atmosphere, especially fast moving objects.

One of the surprises of examining declassified Air Force UFO files is the continued discovery of reports of a class of objects typified by the Chiles-Whitted "sky monster", a huge, jet-propelled cigar-shape a hundred feet or more in length. Words used to describe the objects in question are varied: "sausage," "spindle," "blimp," "tube," "rocket," or "cucumber."

The "sky monster" of Sandberg Pass:

South of Bakersfield, California, in the vicinity of Sandberg Pass on February 28th, still another sighting was made. In this case a young lieutenant of the Air Force Reserve caught sight of something while piloting a T-11 aircraft.

"....while flying on a northerly heading at an altitude of approximately 9,000 feet, I observed what appeared to be a jet-propelled aircraft of an unfamiliar type. Weather over Sandberg Pass was thin scattered clouds, visibility 10 miles, temperature 36, cloud covering at approximately 20,000 feet, dew point 34, wind south 7, altimeter 3007. The visibility west was one mile with fog ceiling and visibility variable due to scattered stratus drifting in the area. The object with the general

shape of a blimp approached head-on about 1500 feet above me, made a complete 360 degree circle and left on a heading of 180 degrees to my course. The object left a steady glow at the rear which I believed to be a jet exhaust. At the time the co-pilot was in the rear of the aircraft and at no time observed the object. I was unable to determine its distance from me due to darkness and climatic conditions. The object appeared about as big as two fingers at arms' length and it took about 40 seconds for the object to make a 360 degree turn about my aircraft. During this maneuver I observed the object to be approximately 20 degrees above my line of flight."⁵⁴

Colonel Clingerman of Project SIGN mailed two "Guide to Investigation" forms to the March AFB Intelligence Officer asking that detailed signed statements be obtained from all available witnesses and added: "Results of this investigation should be advised of the necessity of avoiding publicity in this matter."⁵⁵

The "thing" parked above Little Rock:

"Three hours after midnight on February 25th, something took a liking to Little Rock, Arkansas, positioning itself high in the sky:

"....witnesses sighted an unknown object directly overhead of their residence on the outskirts of Little Rock, Arkansas. The shape appeared as flat and perfectly round with a diameter of from 30 to 60 feet. Color could not be determined because of darkness. The entire 'disc' was reported to be plainly outlined by radiation or luminescence. Altitude was estimated at 10,000 - 12,000 feet. The object was highly maneuverable. During 1 hour of observation the object appeared to stop and reverse its direction several times. At one time, during observation, it appeared to come to a sudden stop and move directly up for several thousand feet, after which it returned to its normal elevation of 10,000 - 12,000 feet. No estimate was made of speed of object but witness reported it as 'several times as fast as conventional aircraft'. No sound was noticed. No exhaust trail of object was noticed. At one time during observation a vertical beam or ray of light was noticed from the object to the ground. Weather at the time was clear with good visibility."⁵⁶

If the Russians or "Men from Mars" were interested in Los Alamos and White Sands, it would be understandable, but why an Army camp in Texas?

Beginning in March 1949, strange lights began to appear in the sky over Camp Hood, Texas, with unnerving regularity. Authorities were more than concerned because Camp Hood was more than just another Army camp. The lights showed extreme curiosity about that part of the camp ringed by guards, the so-called "Q" area. Indications are that the "Q" area was a nuclear weapons depot.

Listed below are quotes taken from eyewitness accounts which give some idea of what was being seen:

- "size of a basketball, white-color, round-shaped, and had a long trail."
- "Half-dollar size, white--to full violet, fast acceleration from standing start."
- "Brilliant light, 20 to 40 feet in diameter, very slow speed."
- "Pale yellow, smaller than the Moon, slow..."
- "Size of a dime at arms length, incandescent white, round stationary..."
- "...oblong, pale blue-white, faint pinkish trail...."
- "...Ball-like flash, pale blue-white...."
- "...like flash bulb, size of basketball, bright blue-white...."
- "...roundish head with trail, light colored head, orange trail...."
- "like flash bulb, brilliant blue-white...."
- "...roundish head with hazy smoke trail, pale white light at head, traveled in an arc...."
- "...lemon-shaped with tail, pale reddish nose, whitish red trail, very fast...."
- "...orange, teardrop-shape, dropped vertically...."⁵⁷

It would be best, however, to deal with more detail. One incident mentioned that the:

"....light started from a point above the horizon then arced upward and down to 15 degrees when it disappeared. It was a perfect arc. He (the observer) was able to run 10 paces toward a field telephone to report the light before it vanished."⁵⁸

Date	Time	Color	Course	Seen From	Seen By
5 Dec 48	1930	Green	NE to SW	Las Vegas, N. M.	Civilian
5 Dec 48	2000	Green	N/S	Albuquerque, N. M.	Univ. of N. M. Student
5 Dec 48	2105	Green	N/S	Near Las Vegas, N. M.	Military Pilots
5 Dec 48	2115	Green	N/S	Las Vegas, N. M.	Civilian
5 Dec 48	2115	Green	N/S	Las Vegas, N. M.	Civilian
5 Dec 48	2115	Green	N/S	Lucy, N. M.	Civilian
5 Dec 48	2127	Green	N/S	East of Albuquerque	Military Pilots
5 Dec 48	2135	Green	N/S	Near Las Vegas, N. M.	Pilots, Pioneer Airlines
5 Dec 48	2200	Green	N/S	Near Las Vegas, N. M.	Civilian Pilot
5 Dec 48	2220	Red-White	NE to SW	Levy, N. M.	USAF Photographer
5 Dec 48	2220	N/S	N/S	Onava, N. M.	Railway Worker
5 Dec 48	2315	Green	N/S	Near Las Vegas, N. M.	Univ. of N. M. Student
6 Dec 48	2255	Green	N/S	Sandia Base	AEC Security Agent
7 Dec 48	2145	Green	N/S	Los Alamos	AESS Inspector
8 Dec 48	1835	Green	N/S	Near Las Vegas, N. M.	OSI Personnel
12 Dec 48	2102		Note 1		
12 Dec 48	2102		Note 1		
13 Dec 48	2130	Note 2			
13 Dec 48	2215	Green	N/S	20 mi. East of Las Vegas	Civilian
14 Dec 48	0100	Green	N/S	Wagon Mound, N. M.	Civilian
20 Dec 48	2054	Note 3	Note 3		
23 Dec 48	0431	White	N to S	Los Alamos	AESS Inspector
6 Jan 49	0310	Green	E to W	Los Alamos	AESS Inspector
6 Jan 49	1730		Note 4		
30 Jan 49	Note 5				
14 Feb 49	1840	White-Greenish	NE to SW	Near Ganado, Ariz.	Dr. Salisbury
17 Feb 49	Note 6				

<u>Date</u>	<u>Time</u>	<u>Color</u>	<u>Course</u>	<u>Seen From</u>	<u>Seen By</u>
Feb 49	1905	Green	W to E	Los Alamos	AESS Lieutenant
Mar 49	0010	N/S	N to S	Los Alamos	AESS Inspector
Mar 49	0159	Green	Down	Los Alamos	AESS Sergeant
Mar 49	1836	White- Greenish	275 to 289	Los Alamos	AESS Inspector
Mar 49	1835		Note 7		
Mar 49	2153	Greenish- White	NE or SW	Sandia Base	MPs
Mar 49	1800	Note 6			
Apr 49	2200	Green	S to N	Los Alamos	AESS Inspector
Apr 49	0005	Green	NW to SE	Los Alamos	AESS Inspector
Apr 49	0100	Green	S to N	Los Alamos	AESS Inspector
Apr 49	0135	Green	E to W	Los Alamos	AESS Inspector
Apr 49	1950	White	E to W	Sandia Base	MP

SECRET

Authorities were very aware of the attention given to its atomic facilities by strange aerial phenomena as shown by this list found in Air Force files which was classified secret.

Camp Hood authorities were developing a bad case of nerves:

"The following incident may or may not be connected. At about 1930 hours on 7 March 49, a flash-light was seen moving about the 'Q' Area fence line near the air strip. It could not be told by the observer whether the light was within or without the fence. The Security Officer of Baker Site is investigating. He stated the light was not carried by any of the AFSWP personnel."59

The dates of the strange light sightings were: the 19th and 31st of March; the 27th of April (4 sightings that day); the 6th, 7th (two sightings), 8th, 23rd (two sightings), and the 24th (three sightings) of May.

The FBI received the impression that the Camp Hood "flares" were non-controversial:

"These appear to be reason to believe that the above-mentioned phenomena may be connected with secret experiments being conducted by some U.S. Government Agency as it is believed that the United States is farther advanced in guided missile development than any other power."60

This uncomfortable correlation with a sensitive military/scientific area thus shared a similarity with the "green meteors" which was something that did not escape official notice:

"At Camp Hood, it was determined that this type of phenomena, hitherto unreported from the Camp Hood area, had the same general characteristics of the phenomena observed during the past several months at Sandia Base. Because observers were in different locations and some were not certain as to time, it is possible that observations reported within the same hour on the same date are duplications. It should be noted that none of the observers had been instructed to look for or report any sort of atmospheric phenomena. All stated without equivocations that they had never before seen anything resembling the reported phenomena. All claimed to have seen 'falling stars' nearly every night on the Camp Hood Reservation; but all were emphatic in stating that this phenomena was quite different. All men were interrogated separately and had no advance notice that they would be questioned. After the interrogation they were taken to the spot where the observations had been made. These points were numbered and then plotted on a map, Camp Hood and vicinity, 1/62 500 1943. Overlays have been made and a copy is hereto attached. The observer was

then told to aim a surveying instrument, brought along for the purpose, at the celestial points of origin and of termination of the phenomena. Vertical angles and magnetic azimuth of each point was then recorded. In most cases, the observer was able to fix azimuths by some terrain features. Vertical angles were of course estimated except where elevations of observations coincided with ridge or tree lines."61

The conclusion: "No conclusion is drawn from the data on attached overlay other than to note that the 'lights' form a rough circle about the 'Q' area."62

Meanwhile, alarm continued in New Mexico. Fourth Army Intelligence at Sandia Base noted more manifestations in the sky on March 8th from both Kirtland AFB and the atomic installation at Los Alamos:

"Kirtland AFB reports luminous object, blue white in color in northwest horizon. Descent vertical, exploding before reaching earth. No sound indicated.

"Los Alamos guard station #106 reports luminous object, greenish white in color, west of southwest. Direction of flight southeast on horizontal plane. Altitude at or below partial cloud cover. Duration of sighting 2 to 4 seconds. Speed slower than meteor or falling star. No noise heard.

"Los Alamos guard station #103 reports luminous object, greenish white with billowy white flaming tail. Seen west of southwest by observer, gliding in a 60 degree downward angle. Was at altitude of cloud layer. Speed undetermined but described as floating or lazy manner. Observed for 2 to 4 seconds. No noise heard."63

Something also approached Camp Hood in a "lazy manner," coming down out of the sky at a 45 degree angle, almost drifting as it eased itself earthward. A government expert employed at Camp Hood looked up just in time to catch sight of the intense white light. He later told Lt. E. D. Hightower at Protective Force Headquarters his story. The expert, a Mr. Patterson, said:

"(I)...was extremely startled by this object as the first impression was that it was a plane on fire and about to crash nearby. As the eyes became adjusted to the distance this Inspector had the distinct impression of seeing a silver or aluminum colored red body inside the flame or glow that resembled that part of the fuselage of a war-time German type plane from just behind the wing to just in front

of the tail assembly. This Inspector further had the impression that the object was actually flaming and that the flames were quite visible. The overall shape of the object including the flame or light was much like the accompanying sketch. The object appeared less than one half time from the observer and the outlines were very distinct."64

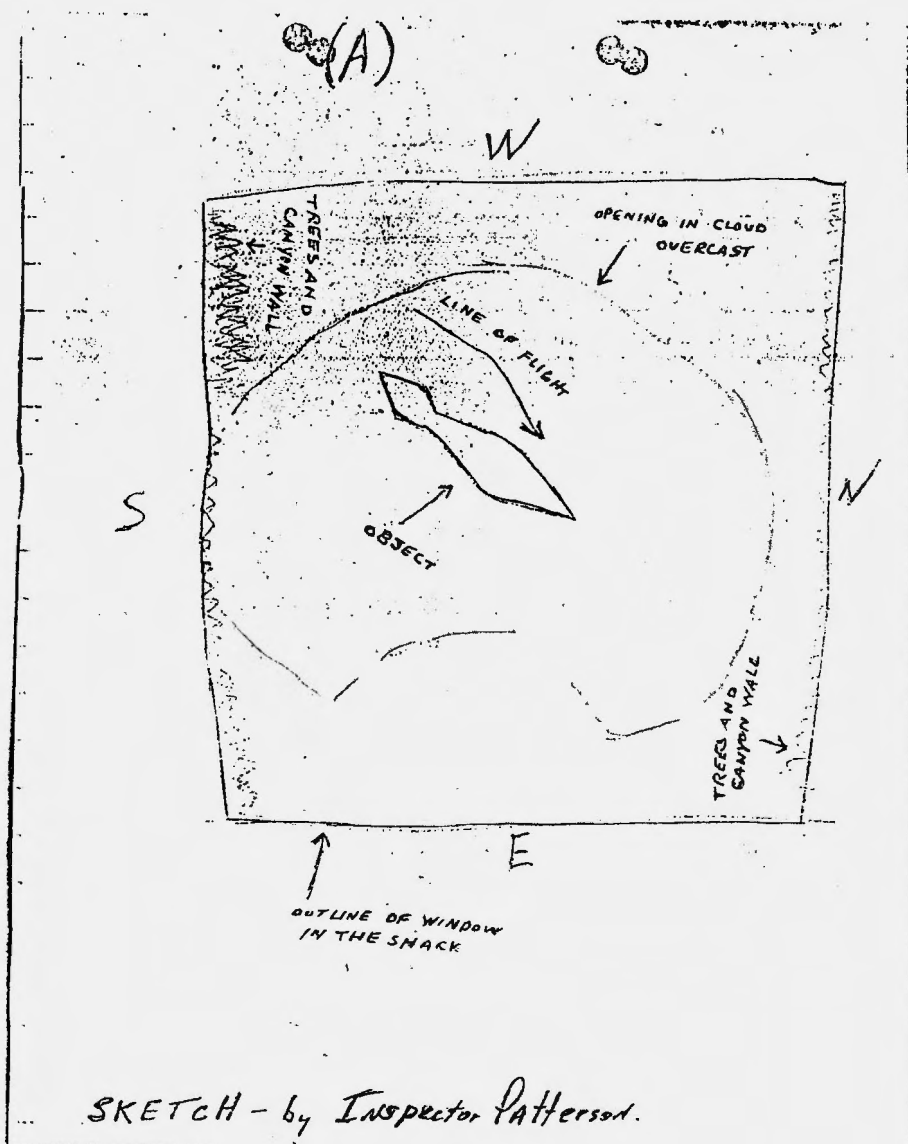
Troops and tanks were poised around the "Q" area in preparation for a training exercise but maneuvers suddenly became the real thing! The Army report on the episode reads:

"Eight moving 'lights' appeared in the atmosphere over or in the vicinity of the 'Q' area, AFSWP, Camp Hood, Texas, on the evening of 17 March 1949. At the time of these sightings, the alert guard of the 2nd Armored Division, under the Assistant AC of S, G-2 of Camp Hood, was in the area concerned and prepared to fire flares and record instrument readings of elevation and azimuth. The purpose was to check the powers of observation of observers who had previously reported the phenomena observed on 6-7-8 March 1949 and heretofore reported in Summary of Information, this headquarters, dated 17 March 1949. Subject: "Unusual Lights." However, before this operation could be begun, the series of 8 unusual 'lights' appeared....Coordinates were based on dual sightings of each light by sights on tanks of observers. Time was clocked at instant of sighting. Captain McCullough, the Assistant G-2, personally observed three of the lights. Physical characteristics of these 'lights' were reported as 'quite different' from these reported on March 6-7-8 March 1949. One burst into a green cluster. One was reddish, another white. One observer described some of them as similar to Very Pistol flares. While this phenomena was occurring, a security detachment from the 'Q' area arrived in the vicinity of the alert crew from the 2nd Armored Division."65

"Alert Status:"

Were the lights just flares? The following tells what was found:

"It was then determined that no one in the 'Q' area was responsible for the phenomena. 'Q' area then went on alert status. Ordnance check has shown that nothing in the way of pyrotechnic missiles has been issued or used in months. Investigation of whole area by ground crews is being made and additional reports will be rendered. As in the case of the 6-7-8 March 'lights', those of the 17th 'bracket' the 'Q'



Sketch by an Inspector Patterson of an object over Camp Hood in March 1949.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Ladd *DL*
 FROM : Mr. Fletcher *C*
 SUBJECT: FLYING DISCS

DATE: March 11, 1949

Mr. Tolson _____
 Mr. Clegg _____
 Mr. Glavin _____
 Mr. Ladd _____
 Mr. Nichols _____
 Mr. Rosen _____
 Mr. Tracy _____
 Mr. Egan _____
 Mr. Gurnea _____
 Mr. Harbo _____
 Mr. Mohr _____
 Mr. Pennington _____
 Mr. Quinn Tamm _____
 Mr. Nease _____
 Miss Gandy _____

See File 13-1-17 Reports

PURPOSE

The approval of the Executives Conference is requested for the attached SAC letter furnishing to the field the type of information desired by the Intelligence Division of the Air Force in connection with the captioned matter.

BACKGROUND

You will recall that by Bureau Bulletin #57, Series 1947, dated October 1, 1947, the field was advised that effective as of that date the Bureau had discontinued its investigative activities in connection with flying discs. The field was advised that all future reports concerning this matter received in the field should be referred to the Air Forces.

Project NEPA

[Redacted] Resident Engineer, Air Materiel Command, Nuclear Energy for the Propulsion of Aircraft Research, Oak Ridge, Tennessee, has recently and confidentially advised the Bureau that flying discs are believed by the Air Force to be man-made missiles rather than some natural phenomenon and that as much as four years ago it was learned that some type of flying discs were being experimented upon by the Russians. It was further determined from *[Redacted]* that most all of the flying discs seen by persons in the United States approached this country from a northerly direction and returned in the same direction, indicating the strong possibility that they are coming from Russia.

The Department of the Air Force has furnished to the Bureau a sufficient number of copies of a memorandum dated February 15, 1949 captioned "Unconventional Aircraft" which can be furnished to our field offices.

STATUS

RECORDED - 76

At the present time this Bureau is conducting an investigation of information received in the field relating to the captioned matter.

RECOMMENDATION

It is recommended that the attached SAC letter and enclosure be forwarded to the field to advise them of the type of questions to be asked of persons who voluntarily submit information relative to "flying discs." Although no active investigation will be conducted by the Bureau, it is believed that the captioned matter is of sufficient importance to the internal security of the country that our field offices should secure as much information as possible from complainants in order to assist the Department of the Air Force.

EHM:EHM
 Attachment

94

V

2-2

area. One group of 3 lights being North of the area and one group of 5 lights just South of the area."⁶⁶

The crowning insult to the personnel at Camp Hood was the passage of a formation of "lights" in front of the entire garrison lined up for an evening ceremony, in effect the phenomena thumbing its nose at the whole bunch. When higher headquarters took no action on their complaints, the Army Commander worked out an extensive visual tracking system that only needed a final okay from the Pentagon. The okay never came. Edward Ruppelt claims that the Army scheme was one of the first casualties of the change at Air Force Intelligence at Wright Field.⁶⁷

This new way of treating the UFO problem got some publicity that only intensified curiosity. The public was treated to some comment that interpreted the "new look" of Project GRUDGE as anything but a "minimum level" effort apparently dealing with something of little consequence. The Associated Press in an article datelined Washington, D.C., March 12th, remarked:

"Remember the flying saucers? For what it may be worth--the armed services won't talk about them any more. Any information concerning them is now 'classified' along with information on atomic bombs and guided missiles.

"Few here know what to make of this--if anything--and of course won't talk."⁶⁸

A FBI official by the name of Mr. Fletcher sent a memorandum to a Mr. Ladd on March 14th which advised that: "The approval of the Executives Conference is requested for the attached SAC letter furnishing to the field the type of information desired by the Intelligence Division of the Air Force..."⁶⁹ Noting that the Bureau had dropped out of the UFO investigation business on October 1, 1947, Mr. Fletcher wrote that a Mr. "E" (name crossed off) had "confidentially advised" him the Air Force considered the UFO's to be man-made and that the Russians were experimenting with a type of flying disc craft, moreover, that for the most part UFO's approached from the north indicating a Russian origin. Therefore, the FBI should furnish the special report forms dated February 15th and titled: "Unconventional Aircraft" to agents in the field.⁷⁰

The distribution was approved. A letter to all Special Agents in Charge (SAC) signed by J. Edgar Hoover explained the possible Russian threat and terminated with:

"....no investigation should be conducted by your office relative to flying discs, however, the attached memorandum should be referred to in securing the data from persons who desire to voluntarily furnish information to your office relating to flying discs."⁷¹

Office Memorandum • UNITED STATES GOVERNMENT

TO : Dr. Machle, OSI

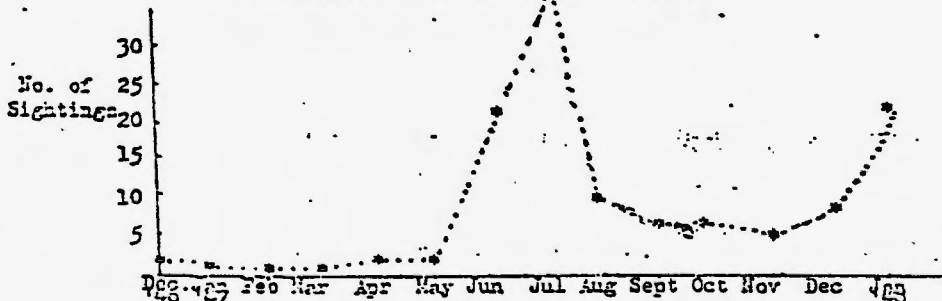
DATE: 15 March 1949

FROM : Dr. Stone, OSI

SUBJECT: Flying Saucers

CIA

1. A rapid perusal of your documents leaves one confused and inclined to supineness.
2. The following considerations seem not to have been included in the survey:
 - a. No suggestion is noted that there is a possibility that many of the objects may be "free" meteorological sounding balloons.
 - b. If a true "flying saucer" is to be involved, it is extremely unlikely that they be found over the U. S. because:
 - (1) U.S. developments would be closely coordinated with USAF or commercial designers.
 - (2) Foreign aircraft development would hardly be tested at such a range from home areas, even if fuel could be supplied
 - (3) Guided aircraft at a range of several thousand miles are beyond any known capabilities, including ours.
 - c. What is the psychological probability that any object seen briefly against "zero" background will be circular, or oval, in appearance?
 - d. Has any one commented on the curious time distribution of the observations? Note chart below:



Is there any midsummer madness involved? Are asteroids prominent in that season? Etc., etc.

The CIA memo dated 15 March 49 concluded with:

"Studies on the various possibilities have been made by Dr. Langmuir of GE, Dr. Valley of MIT, Dr. Lipp of Project RAND, Dr. Hynek of Ohio State and Aero Medical Lab. That the objects are from outer space or are an advanced aircraft of a foreign power is a possibility, but the above group have concluded that it is highly improbable. In discussions of this subject with Mr. Deyarmond at Wright-Patterson Air Force Base, he seemed to think, and I agree, that the 'flying discs' will turn out to be 'sea serpent.' However, since there is even a remote possibility that they may be interplanetary or foreign aircraft, it is necessary to investigate each sighting."

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: March 22, 1949

FROM : SAC, SAN ANTONIO

SUBJECT: PROTECTION OF VITAL INSTALLATIONS
BUREAU FILE 65-58300

Re San Antonio letter to the Director dated January 31, 1949, which outlined discussion had at recent weekly Intelligence Conferences of G-2, ONI, OSI and FBI in the Fourth Army Area concerning "Unidentified Aircraft" or "Unidentified Aerial Phenomena" otherwise known as "flying discs", "Flying saucers" and "balls of fire". It is repeated that this matter is considered secret by Intelligence Officers of both the Army and the Air Force.

G-2, 4th Army, has now advised that the above matter is now termed "Unconventional Aircraft" and investigations concerning such matters have been given the name "Project Grudge".

G-2, 4th Army, advised on February 16, 1949, a conference was held at Los Alamos, New Mexico, to consider the so-called "Green fire ball phenomena" which began about December 5, 1948. It was brought out this question has been classified "secret" and that investigation is now the primary responsibility of the U.S. Air Force, Air Materiel Command, T-2.

[REDACTED] of the University of New Mexico, discussed one sighting which he himself had made which was termed the "Starvation peak incident" and described the following characteristics which indicated that the phenomenon could not be classified as a normal meteorite fall.

1. There was an initial bright light (no period of intensity increase) and constant intensity during the duration of the phenomenon.
2. Yellow green color about 5200 Angstroms.
3. Essentially horizontal path.
4. Trajectory traversed at constant angular velocity.
5. Duration about two seconds.
6. No accompanying noise.

RECORDED - 47

JEF:md
2 cc: El Paso (100-4562)
2 cc: Dallas
" " Houston
" " Little Rock
" " Oklahoma City

Apr. 4-1949

Although the FBI chose to remain passive and the "new look" at Project GRUDGE reduced investigating to a minimum level, this period was marked by a significant expansion in official interest. Perhaps the best authority on this is Brad Sparks who tells us:

"In March 1949, the CIA's (Central Intelligence Agency) newly established Office of Scientific Intelligence (not to be confused with the Air Force's Office of Special Investigations or 'OSI') assigned an intelligence analyst in its Weapon and Equipment Division to keep a file of UFO reports and to follow any developments of interest."⁷²

The Central Intelligence Agency:

European author Baron Johannes von Buttlar makes a fantastic claim about this period of UFO history, asserting that he obtained his information from "special contacts within the American CIA and the Russian KGB." The CIA, he says, was informed by another American government agency in 1949 that UFO's were "almost certainly extraterrestrial visitors." As for the KGB, von Buttlar contends that it arrived at a similar conclusion about the same time. Both Intelligence agencies, he goes on to say, determined that "public interest in UFOs was an obstacle." To the Russians secrecy was not too much of a problem since a state controlled press had always been an official policy. The American CIA, however, faced a more formidable task in that it had to operate in an open society. According to von Buttlar, beginning in 1949, the CIA resorted to a scheme of deception, ridicule, and lies, to debunk the UFO subject. Project GRUDGE, he maintained, was established to "explain" UFO reports as hallucinations, hoaxes, or mistakes. What the CIA and the KGB were engaged in, von Buttlar tells us, was a race to obtain knowledge of the highly advanced technology the UFOs utilized.

How much truth is contained in the European best seller, von Buttlar's The UFO Phenomenon, is a matter of conjecture without more exact verification, but one suspects that he may have scored a few bullseyes.

All this time editors like Ken Purdy of True magazine had investigative reporters haunting the halls of the Pentagon, asking for opinions and tracking down rumors in the hope the Air Force or some other source would reveal what had been discovered about UFOs. Sam Soal and John Du Barry of True couldn't get much in the way of Air Force cooperation,⁷³ but it wasn't because the military didn't want a UFO story to be written, it was just that the UFO subject was so sensitive it was felt it needed a "special touch."

There were no UFO reports on April Fool's Day, but on the third a real winner came in from Dillon, Montana, a "classic" saucer shape performing "classic" maneuvers:

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI
FROM : SAC, San Antonio

DATE: April 4, 1949

SUBJECT: PROTECTION OF VITAL INSTALLATIONS
(bureau file 65-48300)

AIR MAIL
SPECIAL DELIVERY

Reference is made to San Antonio letter to the Bureau dated March 22, 1949 which submitted information related by military authorities concerning unconventional aircraft.

The Office of the Assistant Chief of Staff, G-2, 4th Army, has advised that at 11:50 P.M. March 31, 1949 a lighted object about the size of a basketball, reddish white in color, followed by a fire trail, was observed southwest of Killeen Base, adjacent to Camp Hood, Texas. The observation was made by [redacted] who was in charge of a platoon, Company C, 12th Armored Infantry Battalion, which is assigned as a part of an alert force (called force Abel) from Camp Hood, whose function is to protect the installation at Killeen Base.

[redacted] advised that the object was at an altitude estimated at 6,000 ft., was traveling parallel to the ground and passed directly over him at a rapid rate of speed. It was in view 10 to 15 seconds and suddenly disappeared high in the sky without having descended. No sound or odor was detected. The night was clear and visibility good. The object passed almost directly over the air strip at Killeen Base.

When [redacted] attempted to advise his headquarters by telephone immediately after the sighting, he heard static or electrical interference on the telephone line which he stated might be possible radio interference.

G-2 has advised that other lights of unknown origin were observed on March 6, 7, 8 and 17, 1949, by military personnel of the alert force stationed approximately 1000 yards east of the fences which surround Killeen Base.

The object sighted on March 31, 1949 was reported as being of a different nature from the lights seen earlier in the month.

It is noted that Mr. WALTER WINCHELL, on his Sunday evening broadcast, April 3, 1949, stated that "flying discs" seen in this country definitely emanated from Russia.

On April 4, 1949, G-2, 4th Army, contacted this office, inquiring as to whether we had any information that would substantiate or discredit the statements made by WALTER WINCHELL.

2 cc - El Paso (100-4562)

JEJ:ED
100-7545

RECORDED - 105

INDEXED - 105

EX-11

5 MAY 5 1949

RECEIVED

"The object appeared to be approximately twenty feet in diameter and four to five feet in depth through the center. The object at the time of sighting appeared to be rocking or rotating in a semi-circular motion. It appeared to be constructed of metal such as aluminum and was bright on the upper side and reflected sunlight. The lower side appeared to be either blue-gray or greenish-gray, which did not reflect light. The shape of the object was that of a plate or disc placed upon another inverted plate or disc. The edges of the disc were believed to be exceedingly thin with considerable thickness in the middle.

"The object, after rocking from side to side for at least six completed arcs, proceeded in an easterly direction and descended rapidly from the height at which it was first observed down to an altitude of approximately 700 or 1,000 feet at which it again started the rocking motion. After rocking a few times and reflecting light each time, the upper side came into view. It had then moved rapidly in a southwesterly direction to a position approximately 1,000 feet in altitude and two miles west of Dillon, Montana, at which time it again started the rocking motion. After rocking a few times, it proceeded rapidly to a position above the airport of Dillon, Montana. The object again rocked a few times and rapidly disappeared over and beyond the mountains east of Dillon..."⁷⁴

Something other than routine remarks were made in the official file on the case:

"Particular attention is drawn to the fact that the direction of travel of the unconventional aircraft conforms with the radio beams in the Dillon range..."⁷⁵

A bird, a plane,--Superman?

A Cleveland newspaper on April 6th printed: "Here's a sample of a conversation on any street corner in Cleveland today: 'What was that in the sky last night--a bird, a plane--superman?'"⁷⁶ It seems that a mysterious red light had taken a liking to Cleveland and was hovering over the city at night. The newspaper remarked:

"One thing is certain--it wasn't a flying saucer. They were seen only in the daytime last year. And speaking of them...the Air Force said today it still can't explain the saucers. The Air Force says there's no reason to think some

foreign country was practicing with rockets over American territory. Yet on the other hand, the Air Force says cautiously that it can't rule out that possibility. Just what were they? Like Clevelanders today, the Air Force just shrugs its collective shoulders and says 'you tell me.'"⁷⁷

"There they go again!"

It was twenty minutes after midnight. A number of clouds, dark gray in the blackness of the heavens, drifted silently over Ambridge, Pennsylvania. Two miles north of town some railroad workers were loading freight that early morning of April 26th. High above them the clouds drifted by and for a moment left a huge gap, a long narrow break about three miles wide by four miles long, through which the Moon and stars could be viewed clearly. Mr. Peter Hildebrand gazed at the sky when some movement caught his eye. Quickly he yelled: "There they go again!" One of the other workers, a Mr. Sradomski, busy at work next to the locomotive, looked up in time to see something at 45 degrees from horizon. He later testified that some 40 round objects in formation were clearly visible in the break in the clouds. Gold in color and seemingly luminated internally, the things were without detail except for some dark spots. No vapor trails were noticed. The phenomenon remained in sight for 10 seconds:

"The formation consisted of three V formed elements. The first element was estimated to consist of 18 or 20 objects, the second element which followed immediately after the first consisted of approximately 11 or 12 objects and the third element which followed immediately after the second, definitely consisted of 8 objects. The formation was travelling from east to west at what appeared to be tremendous speed, estimated at 1,500 mph. It passed directly over Spang Chalfant Corporation and turned south over the Jones and Laughlin plant which is directly west of Spang Chalfant across the Ohio river. The blast furnaces at Jones and Laughlin were in operation and cast a reddish glow into the sky. Over that plant the third object from the lead on the left side of the last element seemed to drop out of the formation, bank to one side at approximately a 90 degree angle as if to observe below. This object then resumed its place in the formation and the formation abruptly disappeared to the south."⁷⁸

Both witnesses generally agreed with the above. One of them however felt the: "...objects appeared to be weaving or fluttering and at times swerved from side to side and several crossed over each other."⁷⁹

The men said a similar overflight of objects had been witnessed by them three months before on December 17, 1948.

"Are those airplanes? Boy! They are sure fast."

The color of unlighted, frosted electric light bulbs, the two objects hurdled over Peterson Air Field at Colorado Springs 1:30 p.m., April 15th. The Intelligence Division of the Fifteenth Air Force investigated:

"Objects followed a straight course. When first seen, the object on the left was an apparent distance of five feet behind the first, and with an increase of speed overtook the first object in about two seconds and flew in close formation with the first object. This fact seems to preclude the possibility that these objects were meteors.

"Object was first sighted by T/Sgt. Morbeck, who was watching a B-25 pass over the field, and observed the objects passing above the B-25, going in the opposite direction, and called them to the attention of Major Bullock and M/Sgt. Fink, who were standing near by and remarked: 'Are those airplanes? Boy! They are sure fast.'"80

New Mexico again:

A letter reached Dr. La Paz detailing what might have been a large scale appearance of UFO's in New Mexico April 25th. A young man, who had read of Dr. La Paz's interest in unusual aerial phenomena, penned a note to the professor because he was profoundly puzzled at something witnessed when he was fishing at Springer Lake, a body of water four miles northwest of the New Mexico town of the same name. At 6:30 in the morning the 25-year-old man and a friend were preparing bait when they both:

"....heard a peculiar sound sort of a high pitched whistle. We both thought it was some high flying ducks coming in for a landing and we looked up in the air. What we saw was certainly not ducks, but what it was we don't know.

"We saw 'objects' which were silvery white in color and to us what looked like balls, sort of like Christmas tree ornaments. They passed us at very high altitude and going very fast. They were out of sight in a very few seconds."81

The correspondent claims he observed the objects for over an hour. He made a sketch that showed the objects in various formations as they zoomed overhead. The word: "zoomed" may be a good word to use since the witness remarked: "....I do not believe that these objects could have been picked up or followed with field glasses; they were moving much too fast."82

If the objects seen at Springer lake were real, then it lends support to possibility that something strange was going on in the skies of New Mexico April 24th. Some 200 miles southwest of Springer, at Arrey, New Mexico, the site of White Sands Proving Ground, military personnel were making a pibal wind run. The official statement reads that on April 24th the men witnessed something very strange:

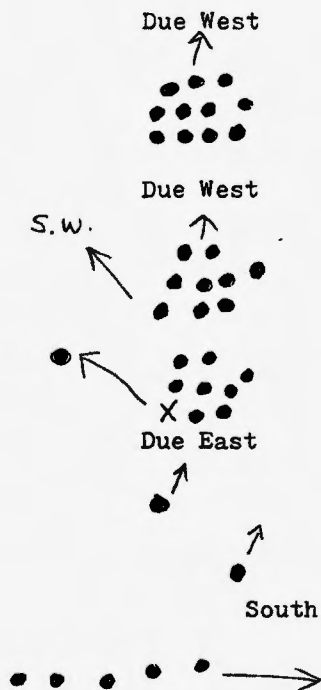
"We released a 350 gram balloon at about 1020 MST and were following it with a standard ML-47 David White Theodolite. After the 1030 reading, --- (deleted) took over the theodolite and --- (deleted) and I looked up to find the balloon when we picked up a whitish spherical object right along the direction the theodolite was pointing (45 degree elevation and 210 degree azimuth). The object was drifting east rapidly (5 degree/second as estimated by stopwatch and width of fingers), but we had thought to encounter similar winds on the balloon. When the distance between the theodolite and the supposed balloon became apparent, I took over the theodolite and found the true balloon still there, whereupon I abandoned it and picked up the object after it came out of the sun (this gives another good bearing if you wish to work out a sun shot at 1030 MST at Arrey). The object was moving too fast to crank the theodolite around; therefore, one of the men pointed the theodolite and I looked. The object was an ellipsoid about $2\frac{1}{2}:1$ slimness ratio; length about .02 degree subtended angle. White in color except for a light yellow of one side as though it were in shadow. I could not get a hard focus on the object due to the speed at which the angles changed. Therefore, I saw no good detail at all.

"The azimuth angle continued to decrease as the object continued on a north heading, growing smaller in size. At around 20 degrees--25 degrees azimuth, the azimuth held constant and the elevation angle began increasing from the 25 degrees minimum to about 29 degrees. The object then apparently disappeared due to distance after a total time of observation of about 60 seconds.

"The object was not a balloon and was some distance away. Assuming escape velocity, a track is enclosed which figures elevation above the station of about 300,000 feet over the observed period. If this is true, the flight would have probably gone over the White Sands Proving Ground, Holloman Air Force Base, and Los Alamos."83

April 25, 1949
6:30 - 7:30
Morning

CEILING AND VISIBILITY UNLIMITED



First time we saw the "object," heading due west at an extremely high altitude and at a very high rate of speed, they were not in sight over 10 seconds. They passed directly overhead. Time 6:30 in the morning. They were in a tight group as shown at left, eleven in group.

About 10 minutes later we observed another flight of these "objects" heading due west very high and fast. When directly overhead the last one on the left suddenly left the rest and headed southwest. All went out of sight in a very few seconds. Nine in group.

At approx. 7:00 we saw two more "object" heading due east in the same manner as the others we had seen. These were much farther apart than the first ones we had seen.

The last large "formation" we saw passed due east from us and heading south. They were strung out in a line going very fast and low but at quite a distance from us. All these "objects" made a peculiar sound like a high pitched whistle. The sound was some distance behind the objects. Five in line.

/signed/ --- (deleted)
Springer, N.E.

Air Force advisor Dr. J. Allen Hynek said of the Arrey case: "...to the best of my knowledge, it was not taken seriously by....(Project GRUDGE). No follow-up was made."84

Dr. Hynek also contributes this comment:

"This sighting has been classified as a mirage by some 'experts' but the physics in this case certainly escapes me. Moore then launched another balloon and tracked it throughout its course to 90,000 feet. At no level were the winds from the southwest, so a balloon is ruled out."85

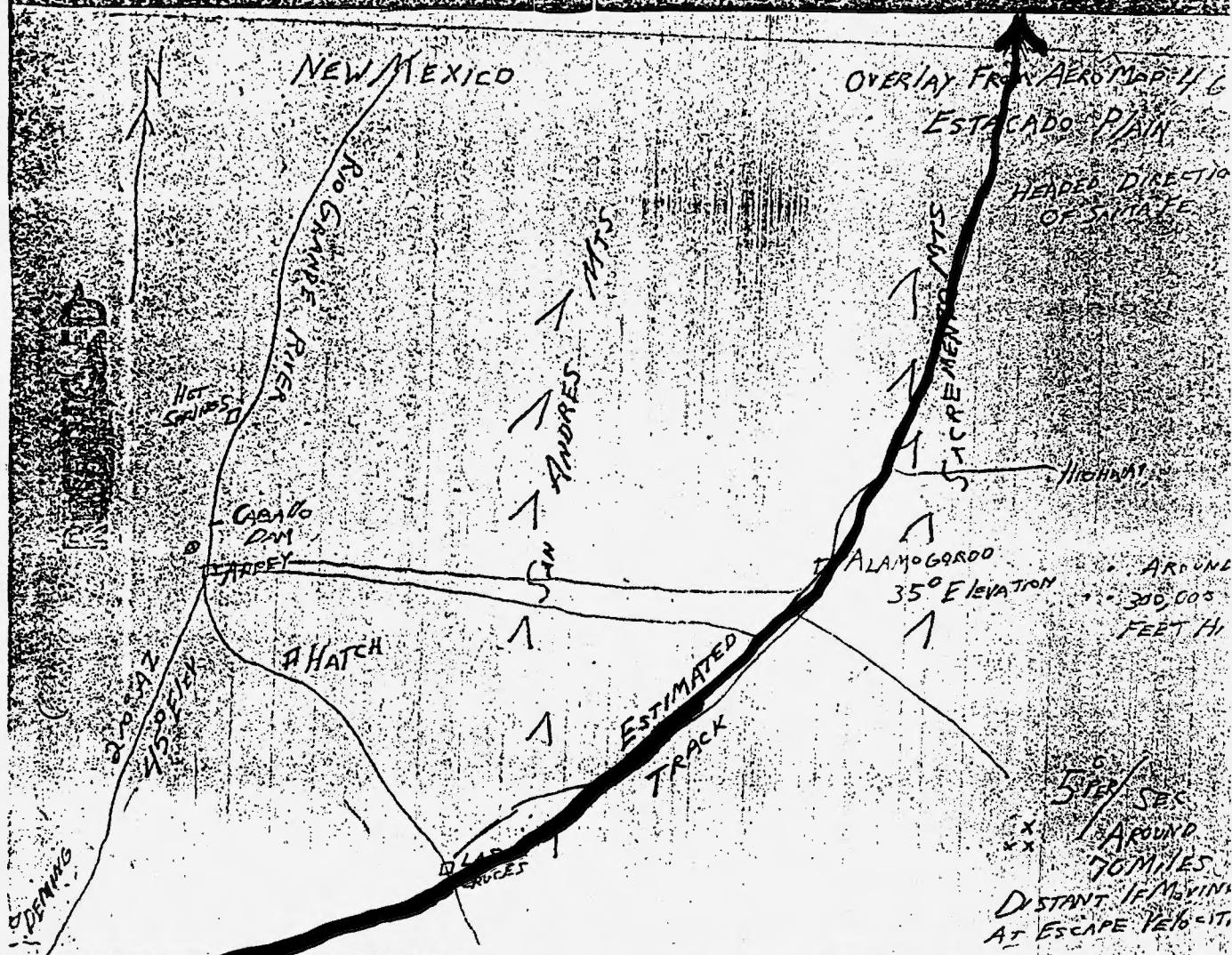
The shiny sausage of Tucson:

Something huge also zipped over Tucson, Arizona, on the 28th. Numerous civilians spotted the object. Of the many accounts on file with the Air Force, the following is representative:

"At approximately 5:45 p.m. on 28 April 1949, I sighted an object in the air NE of Tucson, Arizona, just over the rim of the Catalina Mountains. This object was very bright and appeared to be reflecting the sun shine. From my point of observation, this object was first sighted at approximately a 30 degree angle of elevation and I would judge it to be at that time about 300 miles NE of Tucson. This object was in sight for approximately 12 minutes after which time it disappeared to the SW, just gradually fading from view in the distance. It appeared to be traveling in a curved trajectory, but I believe this object was traveling in a straight line and from my point of observation, the illusion was curved. I would judge this object to be traveling in excess of 500 miles an hour at an altitude of from 5 to 10 miles up. It appeared to be sausage-like in shape, with no fins, wings, or protrubances of any sort. It seemed to be revolving similar to a slow roll of an airplane. It was most visible when it reached a position where it reflected the sun's rays but it also could be seen during the times when no reflections were visible. From the height and size of the object in the air, and if it was placed on the ground, I would judge it to be the size of a city block. I did not hear any noise nor was there any exhaust or vapor trails."86

The same day a sighting made in Homer, Michigan, was as vivid as any reported during the big saucer flap in 1947:

"Quickly going out doors and calling to a fellow worker, Mr. ---- (deleted), who was working in the tank room of the plant, we both were able to observe that they were not gulls but six



Route of Arrey object.

silver colored discs rotating around in a wide circle at about a 45 degree angle and traveling due west. They seemed to be revolving around as if they were attached to an axle. I judged them to be between 300 and 400 feet off the ground and traveling at about 40 miles per hour."⁸⁷

The focus of UFO activity, however, remained in the U.S. southwest, Camp Hood had twelve reports of strange lights between 11:20 p.m. April 27th, to 11:30 p.m. April 28th. All of the sightings were made by guards in the dead of the night. Nothing unusual was noted during the daylight hours. Colonel Eustis Poland, GSC, AC of S, G-2, alerted Air Force Intelligence. The dates and times as given by Colonel Poland are listed below:

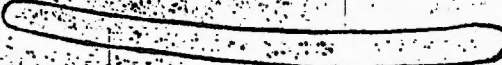
- 1-Rpt dtd 27 Apr, 2120 hours
- 2-Rpt dtd 27 Apr, 2135 hours
- 3-Rpt dtd 27 Apr, 2137 hours
- 4-Rpt dtd 28 Apr, 2030 hours, at Outpost No. 3
- 5-Rpt dtd 28 Apr, 2030 hours, at 914.8 - 856.1
- 6-Rpt dtd 28 Apr, 2037 hours
- 7-Rpt dtd 28 Apr, 2040 hours
- 8-Rpt dtd 28 Apr, 2100 hours
- 9-Rpt dtd 28 Apr, 2110 hours
- 10-Rpt dtd 28 Apr, 2110 hours
- 11-Rpt dtd 28 Apr, 2130 hours
- 12-Rpt dtd 28 Apr, 2130 hours

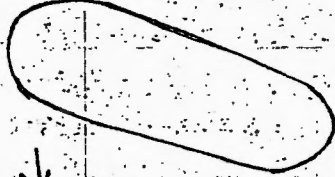
Some of the descriptions:

One account mentions a light, going on and off at regular intervals, that moved horizontally close to the ground, even passing through a fork of a tree. Another Army guard saw a bright, white cone-shaped affair, three to four inches long, that moved in one direction and then made a 180 degree turn before going out. Still another guard said he witnessed a round, bright, white light 200 yards away and about seven feet above the ground. It approached him within 50 yards. He thought it to be the size of a baseball. It was in sight some 30 to 40 seconds. Standing guard, yet another Army guard was surprised to see a light come on, a dull violet, glareless glow about the size of a 50 cent piece. The light was stationary at first but then moved passed the guard, approaching within 12 feet. It quickly picked up speed and darted off down a nearby road (Route 203) at an altitude of an estimated seven feet.

For five to six seconds another guard watched as a light, he believed to be some 10 to 15 inches long and about 100 to 150 feet in the air, jumped up and down. It appeared to be a mile away. After a while it shot off to the south, changing color all the time from white, to red, and then green. At one guard post a soldier glanced toward the camp and suddenly noticed a light he thought to be the dimensions of a baseball, two miles off just above the tree tops. The round light drifted slowly west. The

UNCLASSIFIED
Individuals report of description of the objects sighted with numbers
and names listed below

- 1- *Very highly Reflective on Top only*

- 2- *Light Reflected off of Top very Shiny*
Bright

- 3- 
- 4- 
- 5- *Shine*

- 6- *Reflection on Top a white gleam*


1. John R. Henderson
2. Stephen Borowski
3. James L. Brown
4. Ed Adcock Jr.
5. Samuel J. Clark
6. Ernest J. Lynn

DOWNGRADED AT 3 YEAR INTERVALS
DECLASSIFIED AFTER 12 YEARS
DOD DIR 6200.10

UNCLASSIFIED

Seven sketches by witnesses of object over Fort Bliss, Texas,
on April 28, 1949. A skyhook balloon?

soldier remarked that the light was visible for about three minutes, vanished for two, and then came on again.

In the center of the bivouac area one enlisted man had learned of the lights being reported by the guard posts around the perimeter and walked out to the road to see for himself. He wasn't disappointed. Something chalk-white about a mile away to the north sped past, a baseball-sized object that traversed part of the dark sky in two to three seconds and then went out like a light bulb being turned off. A private in "C" Company spotted a baseball-sized light some 300 yards from the camp that bounced around for ten minutes blinking on and off. Alerted by a phone call, outpost number 3 checked the sky and immediately sighted four round lights the size, they guessed, of tennis balls. The four lights were at an azimuth of 45 degrees. One of the lights changed color. First it was white, and then it turned red, and finally it became green. The other three lights remained white in color. Duration of the sighting was about a minute.

Two guards were watching the night sky when one yelled: "There it goes!" The other guard turned in time to also see the phenomenon, a bunch of lights some eight to ten in number, at an angle of 40 degrees up into the vault of the heavens. The flock of lights traveled slowly toward the southeast. The lights all followed the same pattern. About the size of a softball, the two guards said, the round lights first appeared white, and then reddish, and finally a green color. Another large group of lights, in fact the largest reported, was seen the night of April 28th when some 18 white and red, round, glowing points appeared just above the treetops about a mile and a half away from the observer. The lights moved slowly and through binoculars appeared to be 10 inches in diameter. They were visible for 10 to 15 minutes.⁸⁸

The Air Force may have felt that the foregoing was some sort of natural phenomenon, but to the Army personnel at Camp Hood the lights were spooky and something they could do without.

The dry official reports of the strange lights seen about Camp Hood lack the essentials of drama, but drama can be imagined and even an ordinary writer could come up with a screenplay that could do justice to the ghostly experience. All of the lights flashed by in the dark and it can be guessed there were many trigger-happy Army sharpshooters that would have given a month's pay to get one of the sky spooks in their gun sights in broad daylight.

Meanwhile, Wright Field was struggling with the Arrey, New Mexico monster. The height and speed estimates of the object reported were enormous. At their desks at Intelligence headquarters, the Air Force experts zeroed in on the witness's admission he did not get a clear focus on the object in question. To them it boiled down to a matter of proper depth perception: "We therefore conclude that the observer could

not estimate the distance of the object from him. Since he could not estimate the distance, then any assumption as to linear speed and/or elevation is without reason."⁸⁹

Things were made simpler, perhaps, by a Fort Bliss, Texas, UFO report filed on April 28th. Seven military men sighted a flat shining object stationary in the sky and all seven witnesses submitted visual impressions of the UFO in the form of drawings. The descriptions were very similar making it very hard to deny that "something" of considerable dimensions had been in the air,⁹⁰ but what? Certainly it was not a small weather balloon. In the course of the investigation it was learned that the Skyhook program had started at White Sands several days prior to the sighting, a program of sending giant balloons (150 feet in diameter) aloft to test the upper atmosphere. The Fort Bliss object fit the description of a Skyhook, therefore, a person might suggest that here also was an answer to the Arrey case.⁹¹ Perhaps there had been a huge unfamiliar object very high over Arrey the day of the sighting. Perhaps the Arrey object might have been 100 feet in diameter as estimated, but the observer's computations that put the object at 300,000 feet and moving at 17,000 miles per hour were fantastic miscalculations. Lacking a reasonable alternative, it made sense.

The scene now shifts to sort of a "showdown" the Air Force had with the public and the press. Ever since the summer of 1947 the Air Force had managed to avoid answering too many questions. The typical brushoff was that they "were still investigating." Now the Air Force felt it was time to tell the UFO story. Two means were employed. One was an official document, a "Memorandum to the Press," a brief handout to the press corps. The other was a large article in the Saturday Evening Post, written with Air Force cooperation. Both appeared on April 29th.

First of all, one should make a few comments about the official memorandum which was eagerly snapped up by reporters. There were some introductory remarks, which included a brief comment on the famous Kenneth Arnold report of June 24, 1947, which was characterized by the memorandum as an event that "set off a chain reaction." This negative attitude at the outset set the tone of the rest of the document.⁹²

According to the Air Force, the military conducted exhaustive investigations of each reported UFO sighting. They mentioned that they had on file some 240 domestic and 30 foreign reports. This low number reflected the fact that only "officially reported" UFO reports were logged and investigated.⁹³

While admitting that question marks still existed, it was stated that there were: "...no alarming probabilities."⁹⁴

By page three the memorandum launched into a sketchy recounting of various UFO reports that seem to have been

selected at random with the exception of a few widely publicized "classics" like the Mantell and Chiles-Whitted cases.

Toward the end of the document the space visitor theory was discussed at length, generally following the guidelines drawn by Dr. George Valley's evaluation although his name and that of the RAND organization was not mentioned.⁹⁵ The critical part of the document, the summation, read:

"To sum up no definite conclusive evidence is yet available that would prove or disprove the possibility that a portion of the unidentified objects are real aircraft of unknown or unconventional configuration."⁹⁶

Furthermore:

"Many sightings by qualified and apparently reliable witnesses have been reported. However, each incident has unsatisfactory features such as the shortness of time the object was under observation, the great distance from the observer, vagueness of description or photographs, inconsistencies between individual observers, lack of descriptive data, etc."⁹⁷

"Is there 'something funny' about the silence?"

Now to take up the magazine article authored by Sidney Shallet, one wonders why it was deemed necessary? Why didn't the memorandum satisfy the Air Force? One guess is that the Air Force could imply things in the magazine article in a "semi-official way" not possible in an official document. Or, one might surmise that by cooperating with one journalist, the Air Force would be spared the bother of confrontations with a continuous stream of investigative reporters. Edward Ruppelt wrote of the Post article:

"I have heard many times, from both military personnel and civilians, that the Air Force told Shallet exactly what to say in his article--play down the UFO's--don't write anything that even hints that there might be something foreign in our skies. I don't believe that this is the case; I think that he just wrote the UFO story as it was told to him by Project GRUDGE."⁹⁸

The Saturday Evening Post UFO article was a long two-parter that ran in the April 30th and May 7th issues. The Post article starts off in large type beneath the title that asked: "Is there 'something funny' about the silence that still envelops the mysterious disks?" The article's main theme was that the Generals in the Pentagon did not believe the "saucers" were either Martian scout craft or Russian missiles. The High Command, it goes on to say, attributes UFO reports to misinterpretations of natural phenomena and therefore nothing to

be excited about. Missing was any hint that the Air Force had even been greatly alarmed by the UFO mystery. The article quotes Generals Norstad, Le May, Spaatz, and Vandenburg, as calling the UFO business so much humbug.

Air Force Intelligence officers are quoted complaining that people were reporting things that were hard to entertain. A gentleman in Montana testified that a "...large blue-white ball beamed a bright light at him."⁹⁹ More incredible was a claim by another man who said that while strolling through Golden Gate Park in San Francisco he was attacked by a mysterious light that seemed to have the power to lower his hand like a sack of shot, leaving a bruise on him.¹⁰⁰

A special target of the Post article was the sensational Captain Mantell case. It was proposed that the UFO Mantell had pursued had either been the planet Venus, or a cosmic-ray study balloon (a Skyhook) launched from a site outside Minneapolis.

Amid all the negative remarks about the possible reality of UFO's, there was one allusion to a dissenting opinion. One unnamed scientist of the Project SIGN, fleetingly mentioned, was said to have been convinced that UFO's were extraordinary physical objects. A private UFO investigator happened on something in the 1950's that suggests just who the forementioned unnamed scientist might have been:

"...on the conservative side (is) Alfred C. Loedding, former civilian head of the first Air Force investigation into flying saucers (Project SIGN), and a Princeton aeronautical engineer. According to the Trenton New Jersey Times, Loedding had stated unequivocally that there were such things as flying saucers. He based his statement on more than 100 reports received from airline pilots, Air Force officers, and other reliable sources."¹⁰¹

The vast majority of the material in the Post article was little more than what an ordinary person could gather from major newspapers with a diligent search. The "classic" cases were rehashed (Arnold, Mantell, Gorman, and Chiles-Whitted), but nothing really new could be gleaned from the retelling. Like the official memorandum, there was a disappointing lack of statistical breakdowns of UFO data or other scientific evaluations. In short, there was nothing to indicate that Project SIGN had been a scholarly endeavor.

One point that could be taken from the text for a closer look is the concern expressed by an Air Force expert that the "hardiness of the UFO scare" was undesirable. He reasoned that a future wave of UFO sightings hitting the United States the same time as an international crisis might overload military Intelligence channels dangerously. This was a justified worry during the era of the manned bomber and this excuse for "de-emphasizing" the UFO mystery would be used again in 1953.

The reaction of the press.

While the press faithfully repeated Air Force statements that UFO reports were not a cause for alarm, the wire stories invariably led off with sobering headlines that reflected a continuing concern about the problem. Some examples: "FLYING SAUCERS ARE NOT A JOKE SAYS AIR FORCE" and, "FLYING SAUCER REPORTS BEING TAKEN SERIOUSLY."

A news story out of Washington D.C. the next day by the Associated Press was devoted to the new standard questionnaire being circulated by the Air Force for the reporting of UFO's. The news service also singled out the admission that some 40 percent*of the UFO cases on file were unexplained.¹⁰²

Hynek's farewell.

April 30th marked the termination of Dr. J. Allen Hynek's services as an astronomical advisor to Air Force Intelligence. Looking back on his experiences with Project SIGN, Dr. Hynek remembered his job as a part-time effort and that many of his explanations were "force-fit" which over the years he disowned. Explained Hynek: "I, too, thought at the time that UFO's were just a lot of nonsense. I enjoyed the role of debunker even though I had to admit that some (20 percent) of the original 237 cases I studied were real puzzlers."¹⁰³ His job done, Dr. Hynek returned to teaching full time at Ohio University. Later in 1952, he would be called upon to assist the Air Force again with the UFO mystery but in 1949 he had no inkling of such a possibility.¹⁰⁴ The UFO mystery would persist, surprising Hynek and exasperating military intelligence. Were the strange objects Russian afterall?

The ordeal of Arkadiy Arpraksin.

In 1948 a Russian pilot encountered a weird "flying cucumber" while on a training mission. It would not be the last time. A year later this pilot, Arkadiy Arpraksin, was test flying new jet fighters in southern Russia:

"Once, after a flight, another pilot reported that he observed something similar to what Apraksin observed the previous year, at a great distance from himself. It was an object of elongated form from which bundles of light beams emanated. Again, everything was recorded in a statement and compared with Apraksin's data. The second pilot did not close in with the unidentified aircraft and he encountered no complications.

*This figure is no mistake. This is the number quoted in the news accounts although Hynek mentions 20 percent.

"On May 6, 1949, Apraksin took off in a new airplane for a test flight. He flew at a maximum altitude. The cloud cover in the take-off area was light but when he found himself at Moscow latitude clouds covered the ground. He established communications with Vol'sk and maintained communications with the base all the time.

"Suddenly an incomprehensible aircraft similar to the previous one appeared. It flew considerably lower. Later, it began to descend. Then Apraksin directed his aircraft toward the 'flying cucumber.' The speeds of both machines were very great and a collision appeared inevitable. At a distance of about ten to twelve kilometers a cone of light beams was again directed at Apraksin. (This happened during his first encounter with a similar object in 1948.) Blindness set in. It turned out that the entire electrical portion of the controls was destroyed and, furthermore, the front plastic observation window was damaged. The air-tightness of the cockpit was destroyed and although Apraksin was in a special suit and protective helmet, he experienced a drop in external pressure.

"He was in great trouble, but nevertheless he flew the aircraft, gliding it to the earth. Radio communications with the base ceased. Apraksin landed the airplane on the right bank of the Volga, forty-nine kilometers north of Saratov, with great difficulty and lost consciousness.

"When he came to, he was in a hospital at the base. Again, his statements and again the experts (sic) arrived from Moscow. He lay in the hospital (in Saratov) for two and a half months and then was sent to Moscow."¹⁰⁵

Apraksin's troubles would not be over when he arrived at Moscow. In August his ordeal would resume.

Back in the United States at Baltimore, Maryland, an American had his own ideas about Russian activity. He wrote a letter to the Pentagon, a missive would trigger a lengthy investigation. The man scribbled:

"Gentlemen:

"On Saturday, April 30, 1949, I phoned some information to the local office of a certain U.S. government agency. I would like to give you the same information but I hesitate to put it in writing for fear a communist agent may see it. How can I be placed in communication with a high ranking official and assured I am giving this information to a 100 percent supporter of our United States Constitution? Please contact me

at your convenience.

Very truly yours,

---- (deleted)"¹⁰⁶

The above letter was mailed May 2nd.

True's Ken Purdy had been trying to obtain some satisfactory answers to the UFO riddle for months. The more he and his staff worked, the more complex and mysterious the subject seemed to become. Finally, on May 9th, Purdy sought some outside help. He sent a telegram to a top investigative journalist by the name of Donald Keyhoe, a gentleman with a military background as an ex-Marine Corps pilot, and an author of books on military topics. As a graduate of Annapolis, Keyhoe had many old classmates still in the Navy. Some of his friends even held jobs in the Pentagon. Furthermore, he was an aide to Charles Lindbergh when the "Lone Eagle" made an aerial tour of the U.S. under the auspices of the Daniel Guggenheim Fund for the promotion of aviation. Keyhoe befriended many influential persons in aviation across the nation during the tour.¹⁰⁷ This is to say nothing of Keyhoe being a one-time assistant to the Chief of the Bureau of Aeronautics, U.S. Department of Commerce.

With the forementioned qualifications it seemed Keyhoe was just the man for Purdy. Although he would become one of the top experts on UFO's in the coming years, when Keyhoe walked into Purdy's New York office in response to a telegram from True's editor, his mind was a blank slate on the subject. Keyhoe has left us a record of his introduction to his saucer assignment. Purdy speaks first in the following exchange:

"Have you seen the Post this week?"

"I told him no.

"There's something damned queer going on. For fifteen months, Project 'Saucer' (SIGN)* is buttoned up tight. Top Secret. Then suddenly, Forrestal gets the Saturday Evening Post to run two articles, brushing the whole thing off. The first piece hits the stands--and what happens?

"Purdy swung around, jabbed his finger at a document on his desk.

"That same day, the Air Force rushes out this Project 'Saucer' report. It admits they haven't identified the disks in any important cases. They say it's still serious enough--wait a minute--'he thumbed through the stapled papers'--to require constant vigilance by Project 'Saucer' personnel and the civilian population."¹⁰⁸

*The code name "SIGN" was classified. The expression: "Project SAUCER" was used by the military in its press releases.

The aroused editor of True handed Keyhoe a stack of notes that had been already collected by his staff on the UFO mystery. Purdy told Keyhoe to study the material and then to nose around the Pentagon to find out anything new. As Keyhoe went out the door, Purdy warned him that True's first man on the job, Sam Boal, had gotten as far as Secretary of Defense Johnson who flatly dismissed the UFO subject as meaningless. In Keyhoe, however, the powers-that-be would have a real fighter as an adversary.¹⁰⁹

Most of the Fourth Estate, like the editor of Time magazine,¹¹⁰ tended to buy the announced conclusions of the Air Force. Still there were a few like True's Purdy who were not about to give up so easily.

Report of an unusual (?) natural (?) phenomenon.

A two-door sedan left Holloman AFB, New Mexico, about 9:30 p.m. May 12th. As it traveled the highway to Alamogordo the passenger in the vehicle gazed at the Moon that was coming up over the Sacramento Ridge to the east. After a time he became aware of two "stars" of a fuzzy appearance three to four degrees above the horizon. The position of these "stars" bothered him, as did the fuzzy images. Since the observer wore bifocals he shifted his head. He even rolled down the window. As he peered at the points of light he mentally estimated them to be of zero to first stellar magnitude.

He submitted a report on the incident to Air Force Intelligence and titled it: "Report of an unusual (?) natural (?) phenomenon." Of his sighting he wrote:

"There is a bare possibility that the patches were clouds, but the behavior was unusual, to say the least. The whole phenomenon is puzzling. It may have some simple explanation, but there seems to be no completely satisfactory theory available."¹¹¹

The observer was Dr. Donald Menzel of Harvard Observatory.*

*Dr. Menzel, an astronomer and astrophysicist, obtained his B.A. from the University of Denver, and his M.A. and Ph.D. from Princeton.

At Climax, Colorado, an observing station was established in 1940 by Dr. W. O. Roberts and Dr. Menzel. It was called the Fremont Pass Station of the Harvard College Observatory.

During World War II, Dr. Menzel held the rank of Lt. Commander in the Navy and was a member, and subsequently chairman, of the Wave Propagation Committee of the Joint Chiefs of Staff. This committee conducted tests in desert areas to study radar images. As Dr. Menzel acknowledged, light behaves much like radar.

Dr. Menzel apparently remained in close association with the military after the war although he played down such ties. He admits following the UFO story as reported in the news media during the period of 1948 to 1951 and dismissed most accounts as amendable to natural explanations. He eventually became Director of the Harvard Observatory at Cambridge, and as such, could command the attention of the nation's news media when he later became the world's foremost skeptic of UFO's being extraordinary objects.

Censorship?

A rather intriguing paragraph appears in an Air Force document concerning UFO's dated September 22, 1949 which refers to something dated earlier. A Colonel James O'Connell, a OSI District Commander wrote:

"Your attention is invited to Paragraph 11, AF Regulation 205-6, dated 18 May 1949, which prohibits the disclosure of the nature, sources, or existence of investigative information to unauthorized persons."¹¹²

May 19th L. Colonel William M. Turner, Executive, Special Investigations, The Inspector General Office, USAF, Pentagon, forwarded a written request to the Air Force, OSI office at Bolling, AFB, Washington, D.C. to investigate certain "Communist activities," as alluded to in the April 30th letter from a civilian residing in Baltimore, Maryland.¹¹³

Numerous flying saucer reports were coming in during this period, but the majority involved a single witness with little in the way of training that qualify them as an expert observer. There were exceptions.

A man was enjoying a nice warm day on May 20th on Pontchartrain Beach, New Orleans, La., not far from the city airport:

"...he first saw only one object, but later five smaller objects grouped around a larger one. All were bright and shiny, being silver in color. Shape was flat and spherical. Distance from the observer could not be estimated, but objects were in sight for approximately 23 minutes."¹¹⁴

The witness in this case was a Tulane University professor who also happened to hold the rank of Lt. Colonel in the Air Force Reserve. In fact, he was formerly an Intelligence officer and just happened to be well known to the local Air Force OSI Office, so well known no background check on his character was considered necessary.

There were some indications UFO activity would break out in Europe for the fourth year in a row. Reuters told the world on May 20th that:

"Flying balls of fire moving in the direction of the Soviet frontier were today reported to military authorities by inhabitants in different parts of eastern Finland.

"The balls left trails of sparks and made a whinnying noise as they passed overhead at 500 feet, the inhabitants said.

"During the last two years different types of flying bodies have been periodically reported in

Sweden and Finland but scientific investigations showed them to be natural phenomena."¹¹⁵

More atomic plants.

Hanford, Washington, is a small community without any claim to fame other than as the site of the U.S. government's huge atomic plant. Obviously the air space over this important installation was restricted. Therefore, when a silvery, round, disk-shaped object intruded on May 21, 1949, the alarm was sounded. A nearby radar site (the 637 ADCC) picked up a target hovering around 18,000 feet. The proximity of the object permitted visual observation of the unidentified object by personnel at the radar site with one of the military men using a telescope. A F-82 jet fighter was sent aloft from Moses Lake AFB to intercept and identify the UFO. Before the fighter arrived the UFO left the area, but another target, a small, slow, commercial aircraft dropping advertising leaflets, just happened to wander by and official Air Force files classify the case as "explained" and as a "private aircraft." This was done in spite of the investigator on the scene who stated that: "...two separate and distinct alert conditions existed..."¹¹⁶

The Rogue River Riddle.

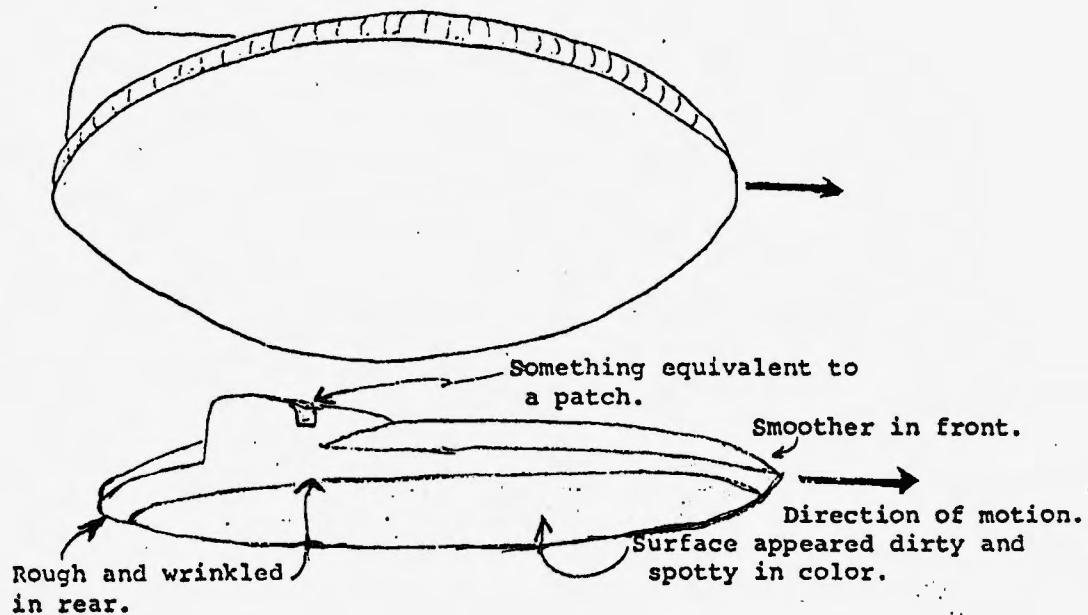
The next case was checked extensively by Dr. Bruce S. Maccabee, who was initially attracted to the case because of an official reference to it as an outstanding example of an unexplained UFO incident.

His curiosity was further enhanced when he checked Air Force UFO files that had the following listing:

(Date)	(Location)	(Observer)	(Evaluation)
(May) 24	Rogue River, Bend, Oregon	Multiple	Other-Kites
24	Rogue River, Oregon	(deleted)	Aircraft

Dr. Maccabee's search in Project GRUDGE documents for the "multiple witness" Rogue River case proved to be in vain (The file is out of chronological order on the official microfilm. The case material is among files of an earlier date.). Dr. Maccabee did, however, locate the "non-multiple witness" case explained as an aircraft. Eventually he obtained the data on the "multiple witness" case from OSI records. Not only did he determine that both cases had been carelessly filed as separate incidents, he found that neither explanation given could explain what happened that day on May 24th.¹¹⁷

Five people were in the group that saw the object in the air over Rogue River, and two of them were aeronautical engineers employed by the Ames research laboratory at Mountain View, California. The engineers approached the security officer at



Official sketch of the Rogue River object.

Ames who represented the National Advisory Committee for Aeronautics. The two aeronautical experts were subsequently interrogated by Project GRUDGE investigators. All five witnesses were questioned and all accounts were nearly identical. Here is one:

"While fishing with a party of friends about two and a half miles up the Rogue River from its mouth at Gold Beach, Oregon, at approximately 5:00 p.m., 24 May 1949, my attention was called to an object in the sky. The object was to the east of my location. With the naked eye, little but a glare and silvery glint could be seen. But after watching it for approximately one minute and a half, I was handed a pair of 8-power binoculars by ---- (deleted). It was then possible to see that the object was roughly circular in shape and appeared to be 30 to 35 feet in diameter. It had somewhat the cross sectional appearance of a pancake, being thicker in the center than at the edges. A small triangular fin started approximately in the middle and grew gradually higher to the rear as the object traveled. When first sighted the object was moving very slowly. As I watched it through the glasses, it picked up speed and when it vanished from sight, approximately 90 seconds later, it was traveling as fast or faster than a jet plane. As far as could be seen, it had no openings or protuberances of any kind other than the fin and there was neither sight nor sound of any driving force. It was a clear day and no clouds in the sky, and the sun was at our backs as we watched the object which vanished in a southeasterly direction, mostly south."118

If the Air Force's handling of the Rogue River case was less than perfect, it may be because of the "new view" at Project GRUDGE, but not helping things were two other cases at this time that may have proved to be distracting. One was the previously mentioned Arrey, New Mexico case, and one we have yet to discuss: "the southern Oregon case."

The witness in the "Southern Oregon case" was a very prominent businessman with an excellent background in aviation. He held a commercial pilot license, both single and multi-engine, plus a flight instructor rating. When he was in the Navy he was a legal and personnel officer while having a senior pilot's grade certificate in the Ferry Wing of the Navy Air Transport Command.

With those credentials, the Air Force was inclined to believe the gentleman, although his story put their belief to a real test.

The summary of the "Southern Oregon" case recalls to mind the famous Kenneth Arnold sighting:

"On Friday, 27 May 1949, ---- (deleted) was flying his privately owned SNJ-type aircraft from Red Bluff, California to Burns, Oregon. He departed Red Bluff at 1332 hours P.S.T. and arrived at Burns at 1458 hours P.S.T. At 1425 hours, same date, ---- (deleted) observed the sun reflecting on an object, or objects, at a considerable distance ahead and a few points to the starboard. He continued to watch the course taken by the reflecting material, expecting it to materialize into a conventional aircraft as the distance lessened between him and the object or objects. As the objects reached the long bluffs (shown on the Boise V-2 Aeronautical Chart as Hart Mountain) which run for a number of miles along the east side of some dry lakes (Swamp, Flagstaff, Campbell and Stone Corral Lakes), he observed that instead of a single object there were several which seemed to be flying in formation. At this point the objects appeared to have changed their course so that they were paralleling his course and were following the bluff's rim at about 1000 to 1500 feet below ---- (deleted) altitude at a distance which he estimates to have been 5- $\frac{1}{2}$ to 7- $\frac{1}{2}$ miles. ---- (deleted) is certain that it could not have been as far as ten (10) miles since the bluffs were less than ten (10) miles away and he could see the objects outlined against the bluffs.

"The objects that ---- (deleted) saw are described by him as follows:

"Size of each object: Considerably smaller than a fighter plane, probably less than 20' in length. All of the separate objects appeared to be the same in size.

"Shape of objects: There was no break in the outline. ---- (deleted) is certain he would have recognized conventional aircraft. They had a solid configuration, and no great thickness. They were elongated oval, perhaps twice as long as wide, and perhaps five times as long as thick. ---- (deleted) points out he observed the objects from an angle from above and could not easily estimate their thickness; they could possibly have been egg-shaped, and could conceivably have been perfectly oval. The objects seemed definitely solid objects--there was nothing ethereal about them.

"Speed of the objects: ---- (deleted) is confident they were traveling at least as fast as his own plane (212 MPH). ---- (deleted) had a tail wind of 15 to 18 MPH and the objects would therefore have

been doing over 230 MPH air speed. The objects were traveling south/southwest, opposite to ---- (deleted) course. Calculating the speed of the objects, several different ways from the facts at hand, the speed of the objects varies between 190 to 260 MPH. ---- (deleted) concluded at the time of observation that he could not possibly have turned around and caught up with the objects. They were definitely traveling faster than a group of birds, and slower than jet planes. No trail of smoke or exhaust was observed. The speed of the objects appeared to be steady.

"Terrain, elevations, population, etc. in area:
Source flew at 9000' MSL which was between 4000' and 5000' above terrain. During most of the time of observation, the objects were 1000' to possibly 1500' below source's plane. Towards the end of sighting when source had begun to come down he was almost on a level with them in altitude.

"Number and formation of objects: At the beginning of observation when the objects were a few degrees to the starboard of dead ahead, source could not distinguish separate objects--all he saw, were reflections; however, as he came closer and passed them by $5\frac{1}{2}$ to $7\frac{1}{2}$ miles, he definitely saw 6 to 7 separate objects. To be on the safe side source states with positiveness that there were no less than 5 objects and no more than 8.

"The objects were always in file formation (one behind the other) and there appeared to be no change in altitude of the formation. The space between the lead object and the next one was three or four times the length of the objects. The distance between the second and the following objects was between one-half and two-thirds the length of the objects. Accordingly, if the objects were 20' in length, the distance between number one and number two was 60 to 80 feet, and the distance between number two and the others was between 10 and 17 feet. The distance between the objects appeared very constant. The objects were so close and appeared to keep their formation spacing in a manner which indicated they might have been under tow by the leading object. At the distance of sighting, no connection, if there was any, could possibly have been observed. Source is positive that the objects were separate objects because he was able to see terrain between them. The formation did not fluctuate in flight; the objects flew very evenly and steadily. When ---- (deleted) last saw the objects they were going out of visual range on the horizon."119

The official explanation:

"It is believed that conventional aircraft, birds, balloons, astronomical phenomena, and auto-hypnosis can be eliminated as an explanation for the objects sighted by source. Since source was not flying into the sun and since he is an expert pilot-instructor, vertigo does not appear to be a reasonable explanation, because of the wide range of observance of the objects. As far as the reporting officer's comment is concerned (as well as source's own comment), the explanation of source's sighting of the strange flying objects remains a question mark."¹²⁰

The big "Z" of June 5th.

It appeared on fire, a burning ball resembling a tiny sun. It cannonballed through the sky at tremendous speed, the flaring light exuding a long pink-colored wake, a smoke trail maybe 1000 feet wide and many miles in length. The altitude was extreme. Observers over a 800 mile stretch from Key West to St. Simon's Island, Georgia, reported the phenomenon. Newspapers, in their write-ups on the incident, suggested that a meteor was responsible, yet there were several aspects that caused speculations. First, there was no sound. Second, the flaming object took between 5 to 10 minutes to cross the sky, moving in a horizontal flight path. Finally, quoting a consensus of opinion of ten members of an Air Force detachment that witnessed the passage: "...after the object reached its zenith, it slowly began a graduated auger-shaped ("Z" shaped) descent..."¹²¹

Air Force investigators from MacDill AFB at Tampa, Florida told the press that: "...since the 'flying saucer scare' they made a practice of withholding statements until they could thorough explain the cause of such phenomena."¹²²

The investigating officer that filed the official report for Wright Field Intelligence, or Project GRUDGE, remarked: "It is the opinion of this officer that this object was not a meteor due to its erratic course."¹²³ This opinion was not shared with the news media.

The New York World Telegram hit the street on June 5th with a story that could only be bad news for the Air Force. One of the biggest names in journalism, Walter Winchell, was quoted in a front page "exclusive report" that the Air Force knew that the flying saucers were real and that the military had recently (May 14th) obtained actual photographs of some of the mysterious machines in the sky over Stephenville (Newfoundland) Air Force Base (This case is not in Air Force UFO files.).¹²⁴ The mood supposedly engendered by the Post article had little chance if such "exclusives" continued, particularly if such charges became more detailed and forceful. Now that Winchell had fired the opening shot, Keyhoe and True magazine were preparing to follow up with a massive assault on the Air Force's position.

Keyhoe arrived in Washington, D.C. shortly after his talk with Purdy in New York. Before making inquiries around town he studied carefully a long list of UFO reports compiled by the True magazine staff. In addition to other notes, the aviation editor of True, John DuBarry, had worked up a theoretical composite of a typical flying saucer. Purdy's personal written contribution was various suggestions to guide Keyhoe's questioning of Washington bigshots. Keyhoe was impressed with the contents of the UFO evidence even after a cursory examination. His first impression was that the saucers were real machines and ominous thoughts about a Russian secret weapon entered his mind. It was almost a reflex mental reaction since Keyhoe had already authored a book titled M-Day, a work discussing the mobilization of America in the event of a Communist attack.

Ziping around Washington, Keyhoe tracked down various rocket designers, aircraft engineers, and military officers. Two important experts Keyhoe quizzed were Admiral Calvin Bolster, Director of Naval Research, in charge of the special design section of the Bureau of Aeronautics; and Captain Delmar Fahrney, a top man in the Navy's guided missile program. The opinions of both were identical. They said in effect: "Wish we had such craft!" And: "They couldn't be Soviet!" Thus Keyhoe quickly felt he was left with just two choices: 1) UFO's were misidentifications of ordinary objects or phenomena; 2) UFO's were craft from outer space.¹²⁵

Other civilian stirring.

The Borderland Sciences Research Association with headquarters on Adams Avenue in San Diego, California, the same group that had "conducted mental contact" with a "Kareeta space ship" over San Diego in 1946, held weekly seances with the trance medium Mark Probert up to 1950. Mark Probert's "contact with the Kareeta" had sparked an interest in UFO's by the Borderlanders which continued for some time. Since 1946 the organization kept its membership abreast of the sky mystery by issuing an occasional newsletter. The Borderlander's literary effort was symptomatic of a growing mistrust of the Air Force, of the service's efficiency and/or its desire to share all the data it had with the public. Granted some people wanted UFO's to be spaceships and were blind to any facts to the contrary. There were others, however, with disciplined minds who just weren't convinced the UFO riddle added up to zero. They had little to go on with men like Keyhoe still gathering information, but they didn't need Keyhoe to notice that the official handling of the problem of UFO's had a real bad smell.

Camp Hood, still perplexed and harassed.

On May 7th an unusual light was seen over Camp Hood at 9:30 p.m. The light remained stationary for about 35 minutes. It was round and twice the size of the brightest star visible. The color varied, being predominantly white, but occasionally changing to blue with flashes of red. No maneuvers were observed.

On May 23rd at 10:10 p.m., a light estimated to have been three feet in diameter, round in shape, and changing from an amber to a greenish-yellow in color. The light was in sight for about two or three minutes, and was about 1,500 yards from the observer. The speed was slow and the light appeared to grow. No maneuvers were noted.

On May 23rd again, at 11:30 p.m. a strange light was seen that reappeared approximately 20 times and was described as being round and about the size of a half dollar. The color was similar to that of an ordinary light bulb. The light was in sight for several seconds and moved straight up and down with a slight lateral motion right to left.

On May 23rd also at 11:30 p.m., another section of the camp noticed a light that appeared and reappeared several times. It was described as being the size of a light bulb when held at arm's length and was round in shape. The duration of the sighting was about one minute. The movement of the light was straight up and down at slow speed.

On June 6th at 9:05 p.m. an orange colored ball of fire was seen for some two minutes and forty seconds. It moved in level flight. It burst into fragments.¹²⁶

Finally, at the headquarters of the Second Armored Division the Office of the AC of S, G-2, notified headquarters of the Fourth Army at Fort Sam Houston, Texas on June 15th that:

"Facilities presently available at Camp Hood are deemed inadequate to procure additional information regarding certain aerial phenomena sighted in this area.

"Request that technical personnel equipped with scientific apparatus be available for accomplishment of the mission."¹²⁷

Retreating for a moment to the Arrey incident of April 24th, it should be remembered that the critical point was the estimate of distance. How far away was the UFO? The optical device used was a little off in its focus and there was nothing at that point in the atmosphere to give any ranging information. The observer may have been convinced personally but he could not offer a convincing argument to justify his belief. In the following case we can see that the UFO's in question cooperated by placing themselves right next to an object that was at a known distance, and there was more than one optical device trained on the area of the UFOs' appearance providing numerous checks on the objects' position. The case in question is detailed below.

At White Sands, New Mexico, the Navy had an upper atmosphere missile project in progress. In charge of the project was Commander Robert B. McLaughlin, USN. On June 10, 1949, just after a missile launch, two small mysterious discs were noticed pacing

(It is almost impossible to evaluate a press story as it stands; it requires the time and effort and on-the-spot inquiry of an honest and competent investigator, to get a worthwhile report. So these headings quoted below are only samples of the kind of material that constantly flows into BSRA Hqrs., and of the interest of the press and (presumably) of the public. A clipping service for all leading newspapers (U.S. or world) would soon fill scores of volumes with such "odd news" - or lies and delusions, if you prefer - it will not pay to generalize either way).

FLYING SAUCERS NOW HUSH-HUSH - i.e., "classified information" by the armed services. (Seattle Post-I. 3-13-49). -- FLYING DISC at Long Beach (60-lb. greenish steel disc * San Diego Jour. 3-21-49 -- FIREBALL SEEN IN SKY AT SEATTLE (1-28-49) -- BALL TRAILING FIRE OVER KENTUCKY (1-16-9) -- BUTTER-COLORED DISC IN SKY (Victoria, B.C. 2-12-49) -- STRANGE DISPLAY OF LIGHTS (over Red Lion; N.Y. dispatch 12-10-48); -- SILVER BALL IN SKY OVER MAINE (4-9-48) -- MYSTERIOUS MISSILES IN U.S. ZONE OF GERMANY (many clips, various sources. ca. 2-22-49) -- FLAMING WHEEL FALLS IN OHIO (many clips; 12-4-49) -- WHITE LIGHT OVER TUCSON - TERRIFIC SPEED (Ariz. Star, 10-9-48) -- Silver Saucer in Sky over Langeland Island, Denmark, 8-28-48) -- TRANSLUCENT SPHERICAL OBJECTS OVER SAN FRANCISCO (9-21-48) -- Flaming Object over Augusta, Me. (S.F. Exam. 1-3-49) -- YELLOW-ORANGE-RED OBJECT OVER KALAMAZOO (K. Gazette, 9-5-48) -- ROCKET SPURTING FLAME OVER RISING SUN, IND. (recent) -- Explosion in Air Over San Joaquin Valley, (10-12-48) -- "SKY OCTOPUS" SEEN OVER SWEDEN (8-23-48) --

MYSTERY OF THE FALLING ROSE PETALS (Philippines). 1-14-49; many clips. -- DENSE SMOKE? NO FIRE in San Diego house (S.D. Union, 1-22-49) -- MYSTERY FUMES IN SCHOOL (Pensacola Jour. 11-12-48) -- FLIGHTS OF BIRDS CRACK UP (in N.Y. and Philadelphia; 9-11-48) -- WIERD TRACKS ALONG THE SUWANEE; (many clips) -- Series of Strange Holes in Golden Gate Park, S.F. News, 10-29-48 -- STRANGE HUMMING NOISE, over parts of Britain during last six years (many clips) ...

FIVE NOW DEAD IN HEX CASE (Wash. Post 11-28-48) -- Snowflakes with Holes, like doughnuts, in Idaho; Sandpoint News, 1-6-49; -- Police try (and fail) to catch ghost; Rochester, N.H. 8-29-49 -- Wonder Horse Discusses Politics (Richmond Times Dispatch, 10-25-48).

And Dr. Karl T. Compton says: 'A return to public confidence in scientists would mean great progress toward the future contributions of science to national security'. (Yes - confidence in their honesty as a class; not necessarily in their good judgment and competence, in either science or statecraft).

For the "Beat this if you can" dept.- "Dr. Morris Fishbein (!!) said today, psychological quacks are fleecing the public of millions of \$\$\$ a year." (!!). "Witch-Doctors, Charlatans!" cries Dr. M.F. A quack, by definition, is any practitioner of healing arts who does NOT belong to the American Medical Association! ---- Good article on firewalking, Mechanix Illustrated, March 1949 -- FATE Magazine, Vol. II No. 1, has article on BSRA, the San Diego seances, etc. NOT written by M.L., but by Roger Graham, (physicist, Los Angeles).

the missile on its upward flight, keeping abreast even though the missile was zooming along at 2,000 feet a second. One of the disks dropped back a bit, moved sideways through the rocket's exhaust gases, and then closed with its companion. Together the two UFO's streaked off on an upward slant leaving the "slow" missile far behind. Immediately after the incident eleven different observation posts separately confirmed the presence of the disks and their maneuvers.¹²⁸

It wasn't until June 7th that Air Force Intelligence agents from Bolling AFB got in touch with a Baltimore man that had notified the Pentagon about something that had to do with "Communists." The informant told the agents that a decade before he had bought stock in a venture to build an experimental aircraft but that inventor had disappeared after a few years of work on the project. Just prior to the inventor's vanishment the man told people he would sell his ideas to a "foreign country" if he had to. Recent flying saucer sightings described craft that bore a striking resemblance to the inventor's experimental aircraft. Therefore, the Baltimore man said there may be a connection. The Bolling Air Force agents, in a report to higher headquarters, titled "Communist Matters," wrote that the case may deserve further investigation because of the possible existence of some "saucer-like" prototype craft in storage at a farm at Glen Burnie, Maryland. The agents didn't rush to Glen Burnie right away, in fact they didn't get around to checking until August, but when they did the event made the national news-wires.¹²⁹

Flying "dinner plates."

Outside the main hanger at Klamath Falls Airport, at Klamath Falls, Oregon, a CAA maintenance technician spotted a half-dozen objects speed overhead in a trail formation. He said they looked metallic, were soundless, and left no wake. They looked like "dinner plates" in shape and appearance.¹³⁰

Oak Ridge, Tennessee, another atomic installation.

Three women at Oak Ridge, one a school teacher, another a biologist working at an Oak Ridge lab, and a third who was a wife of a member of the Security Division, AEC, Oak Ridge, observed a very odd trio of "flying saucers" for about 15 minutes on June 22nd. The UFO file on this case states:

"It was described as consisting of two identical rectangular-shaped objects which appeared to be coordinated in movement and which moved in a wave-like motion. The third object was circular in shape and appeared to be in level flight between and above the two rectangular objects. The rectangular objects appeared to be bright metal on top but dark underneath, while the color of the circular object was the same as that of frosted glass. The 'flying saucer,' when last

sighted, was in level flight and was flying in a northwesterly direction. The weather was clear with high cumulus clouds. The 'flying saucer' flew at a speed of from 10 to 15 mph over an area just about the center of Oak Ridge." 131

It was immediately apparent the trio of UFO's had a distinct similarity with meteorological or research balloons but wind charts failed to establish such a correlation.¹³²

"Bubbling."

While driving toward Gunter AFB, Alabama, June 18th, a woman noticed a big dark thunderhead over the airfield. At the base of the towering cloud she said she saw 20 to 25 saucer-like aluminum colored objects which appeared to be "bubbling" up and down into the cloud.¹³³

"It dived on me."

A few white clouds were to the west but otherwise the sky was clear and the sun bright and warm on June 11th, as a Standard Oil of Ohio employee drove down a highway near Lima, Ohio. The driver suddenly noticed something diving out of the sky. He later said:

"I pulled the car to the side of the highway and quickly got out, shading my polaroid glasses with my hands to obtain a better look. I observed an object approaching from high in front of me and a little to my right at what appeared to be a terrific speed. The object dove directly toward the highway and when about 1000 feet above the ground it turned to its right and headed north and west. When approaching headon it appeared to be oval in shape with small short objects protruding from the lower half, much like the appearance of a Seal's flippers.

"When making its turn it appeared to be more of a square turn and not like an airplane. Its actions could best be described that it looked like a puppet on a string with someone guiding same."¹³⁴

One detail in the forementioned statement is rarely reported; that of protuberances, and it casts doubts on its authenticity. On the other hand, the "square turn" and movement "like a puppet on a string" are striking UFO characteristics.

The Tioga, Colorado case and Dr. Valley.

A farm laborer was working in a field on June 9th near Tioga, Colorado, and happened to glance at the sky to check the possibility of rain. He saw something unusual moving just below the overcast. Peering closer he saw:

"....five objects, round in shape, flying at about 20,000 feet toward the north....they were in a formation of two echelons with two objects flying parallel to each other in front. The remaining three objects were to the left and rear of the two front objects and were formed in a triangular formation. The flight was at cloud level and flew in and out of the clouds. He noticed that the rear echelon moved back and forth in the rear of the front echelon."135

During the investigation of the above report, Colonel Clingerman of Project GRUDGE called attention to a Department of the Air Force letter dated May 6, 1949, that requested a Dr. G. E. Valley be contacted if any UFO activity occurred in the Denver, Colorado area between June 1st and September 15th. The Colonel took pains to point out that Dr. Valley was a member of the Air Force Scientific Advisory Board of the Chief of Staff, and as such, rated the full cooperation of the Intelligence officers investigating the Tioga sighting. The reason Dr. Valley gave for the special treatment did not seem to reflect a disbelief in UFO's as real objects of a mysterious nature:

"Dr. Valley stated that it was his desire to be contacted concerning Project GRUDGE activity in the vicinity of Denver because he wished to be on the lookout for such objects. Dr. Valley is doing his research work on Mt. Evans, altitude 14,260 feet, and because of his vantage point felt that, if there were any objects in the vicinity, he might be able to observe them. It is his desire to be contacted immediately, either by telephone or telegram, of the sighting of any objects so he can be on the alert for them. Arrangements have been made with Dr. Valley whereby this office will notify him immediately should anything of this nature occur."136

Meanwhile, Donald Keyhoe was still in Washington D.C. seeking information in his quest for an answer to the UFO question. Boldly he asked for permission to examine the files of the terminated Project SIGN, but he ran into a brick wall on that. Air Force Pentagon Public Relations officers, Al Scholin and Orville Splitt, of the magazine section, referred Keyhoe to Shalett's Saturday Evening Post article, insisting that the essay told the whole story on the UFO mystery. Undaunted, Keyhoe returned to his search for experts "in the know" and willing to talk.137

Additional information for the second edition.

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UFO researchers Brad Sparks and Jerome Clark characterize Ruppelt's assertion that the Fourth Army's plan was killed : a "blatant fabrication." According to Sparks and Clark the Army was undeterred and went ahead with its operation on May 4, 1949, an effort that lasted until August when UFO activity around Killeen eased. What was actually killed was any project GRUDGE participation.

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According to UFO researchers Brad Sparks and Jerome Clark, a more momentous event was taking place elsewhere at this time. The Fourth Army's network of UFO observations posts around Killeen was producing results, sighting objects in the sky on May 4,6,7,8, and the 23rd. On May 19th during a local Intelligence conference, some of these sighting results were discussed and favorably impressed representatives of other agencies. The data suggested the existence of an "unknown phenomenon."

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The Fourth Army's UFO observation network managed to obtain a triangulation of this object which was stationary for while before being seen to move. It was estimated to be at an altitude of about 5,000 feet and in size about 50 feet in diameter. The object was beneath an overcast.

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Last minute additions to this edition:

An Army Inter-Office Memo, Headquarters, Fourth Army, dated 29 December 1948, from a Major Godsoe to A C/S G-2, helps to clarify U.S. Air Force involvement in the "green fireball" investigation. On page two Major Godsoe wrote: "The situation is beyond the capabilities of ordinary intelligence agencies, who can only report occurrences and cannot evaluate the probabilities or possibilities." This fact was explained more fully on the first page:

"This office, the FBI and the intelligence agencies of Sandia base and Kirtland Field have been unable to evaluate or determine the significance or origin of the phenomena. We have therefore agreed that the 17th District, Office of Special Investigation(OSI) of the Air Force be the gathering and reporting agency in that they have a direct reporting channel to Washington, have access to aircraft and observation facilities and are in coordination with the Geophysics Laboratory of the Air Material Command, USAF."

Of much greater import to the UFO historian, however, is an official Army letter from Colonel Eustis L. Poland, GSC, AC of S, G-2, Headquarters, Fourth Army; to Director of Intelligence, GSUSA, Washington D.C., dated 13 January 1949, which reveals that the Intelligence agencies in New Mexico were entertaining three theories:

"Agencies in New Mexico are greatly concerned over these phenomena. They are of the opinion that some foreign power is making 'sensing shots' with some super-stratosphere device designed to be self-disintegrating. They also believe that when the device is perfected for accuracy, the disintegrating factor will be eliminated in favor of a warhead.

"Another theory advanced as possibly acceptable lies in the belief that the phenomena are the result of radiological warfare experiments by a foreign power, further, that the rays may be lethal or might be attributed to the cause of some of the plane crashes that have occurred recently.

"Still another belief that is advanced is that it is highly probable that the United States may be carrying on some top-secret experiments.

"It is felt that these incidents are of such great importance, especially as they are occurring in the vicinity of sensitive installations, that a scientific board be sent to this locality to study the situation with a view of arriving at a solution of this extraordinary phenomena with the least practicable delay."

Comment by Dr. Lincoln La Paz in People Today, the September 10, 1952 issue:

"It is possible that the yellow-green fireball is not the missile itself but the remaining part of a missile in the final phase of self-destruction. It does not explode -it simply evaporates in a flash of light."

AFOR-5
CSGID
Attn: Plans & Collection
Branch
Lt. Col. Smith

Reporting of Information on "Flying Discs."

HQ. USAF - AFOR

27 FEB 1948

Lt. Col. Garrett/dk/4544

1. It is Air Force policy not to ignore reports of sightings and phenomena in the atmosphere, but to recognize that part of its mission is to collect, collate, evaluate, and act on information of this nature.
2. In implementing this policy the Air Materiel Command has been designated as the Air Force agency to collect, collate, evaluate, and distribute to interested government agencies and contractors all information concerning sightings and phenomena in the atmosphere which can be construed to be of concern to the national security.
3. All Air Force installations within and outside Zone of Interior and Alaska have been instructed to report all sightings, or information concerning sightings which comes to their attention, direct to the Commanding General, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio, Attn: MCI.
4. Air Materiel Command has been authorized direct contact with all Air Force installations whenever required to develop additional information on the flying discs.
5. It is requested that all Department of the Army installations also be instructed to report such occurrences directly to Air Materiel Command and that they be informed that Air Materiel Command is authorized to contact them direct when necessary in connection with such occurrences.
6. If possible, reports to Air Materiel Command should include the following information:
 - a. Location and time of sighting
 - b. Weather at the time
 - c. Names, occupations, and addresses of witnesses
 - d. Photographs of objects, if available
 - e. Object sighted:
 - (1) Number (4) Color (7) Maneuverability (10) Exhaust trail
 - (2) Shape (5) Speed (8) Altitude or not
 - (3) Size (6) Heading (9) Sound
 - g. General remarks

FOR THE CHIEF OF STAFF:

C. P. CABELL
Major General, U.S.A.F.
Chief, Air Intel. Req. Div.
Directorate of Intelligence

344444

