[redacted]

Incident # 103

ATIC NO. - - -

AP NO. - - -

AFOIN NO. - - -

DATE OF INFO 18 Feb 1948

LOCATION Green River, Utah

SOURCE USAF Pilots

DATE IN TO ATIC - - -

TIME OF OBSERVING 1500 MST

SHAPE Ball of Fire & Dense cloud of smoke

SIZE Huge

COLOR Multi-colored Ball of fire

SPEED Very high

ALTITUDE 20,000'

LENGTH OF TIME OBSERVED - - -

NO. OF OBJECTS 1

TYPE OF OBSERVATION Aerial

MANEUVERS - - -

WEATHER - - -

SKETCHES - - -

[redacted]

AFIC Form 309
(1 Jun 52)

[redacted]

CONFIDENTIAL

Incident #101 -- Norcatur, Kansas -- 18 February 1948

This now-celebrated case of an unusual fireball has been adequately reported in astronomical literature; (for details, see Sky and Telescope, April, 1948, page 164, and October, 1948, page 293). Positive identification has been made by the recovery of fragments. The origin of this object is, therefore, definitely astronomical, and the incident need not be considered further.

RESTRICTED

[redacted]

Incident #102 -- air near Green River, Utah -- 18 February 1948

It seems entirely probable that the object observed in this incident and in #103 was the Moncatur meteorite seen at an earlier part of its trajectory.

The direction of flight is stated as "southeast of Limon, Colorado." If this means that the object was heading southeast from Limon, it could not have been the Moractur fireball, since the direction of flight of that object was northeast; but if the statement merely means that the object was seen in the vicinity southeast of Limon, the location is consistent with the trajectory of that famous meteorite.

The time stated is approximate, and need not be given too much concern. Actually, of course, the sightings here would have had to be made almost simultaneously with those in Kansas. If the time had been reported as 1600 MST instead of 1500 (a typographical error, by any possibility?), then, allowing for the difference of one hour in time zones, the sightings would have been appropriately simultaneous.

An any event, whether this was the same or another object is not important. The description given -- particularly the statement "huge, multicolored ball of fire and dense cloud of smoke" -- answers closely to that of a fireball.

[redacted]

[redacted]

Incident #103 -- air near Green River, Utah -- 18 February 1948

It seems probable that the object observed here was the Moractur meteorite seen at an earlier part of its trajectory. See report on incident #102 for discussion.

RESTRICTED

[redacted]

18 FEB 48

UNCLASSIFIED

26 March 1951

SUBJECT: Anomalous Luminous Phenomena
The Fireball of 1451, March 6, 11:34

TO: Commanding General
Air Material Command
Wright-Patterson Air Force Base
Dayton, Ohio
ATTN: MCIS

The attached Spot Intelligence Report, dated 21 March 1951, and copy of letter to Headquarters OSI, dated 22 March 1951, are forwarded for your information and any action deemed appropriate.

JAMES F. L. O'CONNELL
Colonel, USA
District Commander

2 Incls
1. Spot Intel Rpt dtd 21 Mar 51
w/incl Sect Aero Chart
2. Cy of ltr to Hq OSI, dtd
22 Mar 51

Copy to:
Hq OSI w/o acv incls

DOWNGRADED AT 1 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

THE INSPECTOR GENERAL USAF
17TH DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
KIRTLAND AIR FORCE BASE, NEW MEXICO

File No: 24-0

21 March 1952

SPECIAL INTELLIGENCE REPORT

SUBJECT: Anomalous luminous phenomena
The Fireball of 1952, March 6, 11:35

TO: Director of Special Investigations
Headquarters, United States Air Force
Washington 25, D. C.

Although this incident does not fall within the purview of AFSI Letter No. 85, dated 23 October 1950, nevertheless, the publicity incident to this matter and the search instituted by Dr. [redacted], Director Institute of Meteoritics, has been such that it is believed the facts mitned will be of interest, and in accordance therewith distribution is being accomplished.

1. Synopsis: An anomalous luminous phenomena occurred 6 March 1952 at approximately 2h:yy hours. The reports of this phenomena were gathered by Dr. [redacted], and a search was made to determine whether or not there were resultant physical evidence of a meteorite. The material evidence of a meteorite, if such was a meteorite, has not been discovered. Visual observations have been reduced to points of intersection covering an approximate rectangular area three (3) miles by six (6) miles and within an area contiguous to Tafova, New Mexico. Search continues by IAPAA.

2. Details: Dr. [redacted], Director, Institute of Meteoritics, University of New Mexico, Albuquerque, New Mexico, gathered all available witnessing data of the phenomena and has attempted to recover any physical residuary evidence of same. Information furnished is a report of Dr. IAPAA.

The Fireball in the Sky: In the long history of incidents occurring in northeastern New Mexico and the vicinity of Texas and Colorado, the [illegible] phenomena [illegible] Moreover, [illegible] certainly [illegible] to claim the [illegible] of [illegible] subject of intensive study by the O.S.I., and the Institute of Meteoritics and other interested agencies. It will be [illegible] readily and accurately [illegible] other phenomena [illegible]

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DOD DIR 5200.10

File 24-0
Subj Anomalous luminous phenomena 21 Mar 51

unresolved since, no meteoritic fragments have been recovered to date. The second of the trio was the detonating fireball of December 4, 1949 in the Sante, Colorado region, from which , in spite of long continued careful search, no meteorites have been recovered. The fireball of March 6 completes the trio and bids fair to conform to the pattern set by the two earlier falls, in that searches initiated in the accurately delimited area of fall within 24 hours after the appearance of the fireball have discovered no meteorites to date.

"The detonating fireball of March 6 was of exceptional magnitude, rivalling the record-breaking meteorite fall of 1948, February 13 in Kansas and Nebraska, from which over a thousand fragments have been recovered, in the intensity of the light and sound effects produced. The fireball of March 6 was seen at a distance of 150 miles by an observer crossing glaring snow-fields in bright sunlight. As regards the remarkable sound phenomena produced on March 6, they have been so fully reported on by the news agencies as to require no account here. However measures in carefully made observations of this fireball indicate that it remained luminous to a very low level in the atmosphere. Hence, if it were a normal meteorite fall, the probability would be very great that solid masses survived to fall to the earth. Furthermore, because of the great size and luminosity of the fireball, it seems likely that the largest surviving masses would be of such size as to punch out easily visible craters in the earth. Yet in this, as in the two earlier cases, no trace either of meteorites or of the effect of meteoritic impact on the earth has been found.

"In view of the very puzzling nature of the three major incidents discussed above (and of many other unexplained minor incidents of similar nature), I wish to repeat the recommendation I made in the case of the Lubbock and Sante fireball falls, namely, that the G.S.I. arrange to secure photographic coverage of the area in which fragments from the March 6 fall should have landed. (Preferably the photo-reconnaissance missions should secure stereo coverage of the area arranged for us in the Four Corners region under the direction of Colonel James C. Finch, M. USAF, DCS/Opns, Photo and Recon.)

"After a careful study has been made of the photographs of the fall area (an elliptical region with axes of 3 and 5 miles, respectively, the major axis extending from (about) lat. 36° 12' long. 104° 10' to lat. 36° 11', long. 104° 6', on bearing (true) Sec. Here. Chart), it is strongly recommended that sufficient air force personnel be assigned to ground search to insure exhaustive coverage of all areas in which meteoritic remains appear to have occurred.

"In making these recommendations, I am chiefly influenced by the probability that the fireballs in question may not be meteoritic in nature. However, in the event that meteoritic fragments are found by reason of

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File 24-0
Subj Anomalous luminous phenomena 21 Mar 52

"meteorites when more extensive air and ground search is made, I do not feel that the effort expended by the Air Force in conducting such searches would have been wasted. Meteorites recovered soon after their fall have, at present, a military value far in excess of the scientific importance they have always had...."

3. ACTION: This District Office is not taking any action other than forwarding this report in accordance with AFOSI Letter No. 85, dated 23 October 1951. In the event that there are any new developments of consistent facts pertaining thereto, they will be forwarded in accordance with the distribution of this report.

1 Incl
Sect Aero Chart
(3-3)

RICHARD O. COX
Lt. Col., USAF
District Commander

cc: AMC (dap) w/incl
AFSXC

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DOD DIR 5200.10

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

AIR MAIL

THE INSPECTOR GENERAL USAF
1774 DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
KIRTLAND AIR FORCE BASE, NEW MEXICO

FILE NO: 21-0 12 March 1952

SUBJECT: American Lenticular Phenomena
Fireball of 1952, March 6, 1452Z

TO: Director of Special Investigations
Headquarters, United States Air Force
Washington 25, D. C.

1. Reference is made to the attached Open Intelligence Report, subject as above, dated 11 March 1952.

2. Dr. [redacted] is of the opinion (see third paragraph of Dr. LAPAZ's statement), attached report that a photographic coverage of the area in which fragments from the March 6 fall should have landed may produce data of value to the Air Force. The 17th District Office has corresponded on matters concerning this matter but contact was made with Headquarters, Special Weapons Command, in an attempt to secure photographic coverage. The Director, Security and Intelligence, Special Weapons Command, after a check of his facilities, informed this office that such a mission could not be accomplished by his command due to a shortage of equipment and personnel.

3. Reference the fourth paragraph of LAPAZ's statement, attached report, this office has informed Dr. [redacted] that the 17th District Office does not concur in the recommendation that Air Force personnel be assigned to ground search in the areas in which meteoritic impact appears to have occurred.

4. The attached report is forwarded for your information and review. It is requested that this District be informed if your Headquarters deems it advisable to secure photographic coverage of the area as outlined in the attached rep.

RICHARD T. CAX
Lt. Col., USAF
District Commander

1 Incl
Open Intel Rpt, 11Mar52,
w/1 Incl Maps

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DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10

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18 FEB 48

UNCLASSIFIED

26 March 1951

...ncl to the Illinois Memorandum
...ne Threshold of 1951, March 6, 1:30 PM

TO: Commanding General
Air Materiel Command
Wright-Patterson Air Force Base
Dayton 2, Ohio
ATTN: MCIS

1. Inclosed Spot Intelligence Report, dated 21 March 1951, and copy of letter to Headquarters OSI, dated 22 March 1951, are forwarded for your information and any action deemed appropriate.

JAMES F. X. O'CONNELL
Colonel, USAF
District Commander

Incls
1. Spot Intel Rpt dtd 21 Mar 51
w/incl Sect Aero Chart
2. Copy of ltr to dq ST, dtd
22 Mar 51

cy to:
OSI w/o incls

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DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

[redacted]

File No: 79-0 21 March 1951

SPECIAL INVESTIGATIONS REPORT

SUBJECT: Anomalous Luminous Phenomena
Kirtland AF, N. Mex., March 6, 1951

TO: Director of Special Investigations
Headquarters, United States Air Force
Washington 25, D. C.

Although this incident does not fall within the purview of AFOSI Letter No. 80, dated 2 October 1950, nevertheless, the publicity incident to this matter and the search conducted by Dr. [redacted], Director Institute of Meteorites, has been such that it is believed the facts adduced will be of interest, and an authorized limited distribution is being accomplished.

1. SYNOPSIS: An anomalous luminous phenomena occurred 6 March 1951 at approximately 0430 hours. The results of this phenomena were observed by Dr. [redacted] and a search was made to determine whether or not there was material deposit evidence of a meteorite. The physical existence of a meteorite, if such was a meteorite, has not been discovered. Visual observations have been refuted to points of intersection covering an approximate rectangular area three (3) miles by six (6) miles and situated in the northeastern portion of Corrales, New Mexico, Sandia Mountains and LASL.

2. DETAILS: Dr. [redacted], Director, Institute of Meteorites, University of New Mexico, Albuquerque, New Mexico, advised all available existing data of this phenomena and his structure to recover any physical evidentiary evidence as more positively delineated in a report of Dr. [redacted]:

"The search is limited to the area in the immediate vicinity of Sandia Mountains, New Mexico, and Albuquerque, New Mexico, and especially adjacent portions of Bernalillo and Sandoval. [redacted] [illegible] magnetic pickups, [illegible] were installed on about certain definite points. The first of which was the fireball of January 31, 1949 in the Sandia Mountains region, which was the subject of intensive study by the [illegible] and the Institute of Meteorites and other interested agencies. It was [illegible] was needed and which was [illegible]

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File 24-9
Subj Anomalous luminous phenomena 21 Mar 51

searched since, no meteoritic fragments have been recovered to date. The second of the trio was the detonating fireball of December 4, 1949 in the Durbo, Colorado region, from which , in spite of long continued careful search, no meteorites have been recovered. The fireball of March 6 completes the trio and bids fair to conform to the pattern set by the two earlier falls, in that searches initiated in the accurately delimited area of fall within 24 hours after the appearance of the fireball have discovered no meteorites to date.

The detonating fireball of March 6 was of exceptional magnitude, rivalling the record-breaking meteorite fall of 1940, February 13 in Kansas and Nebraska, from which over a thousand fragments have been recovered, in the intensity of the light and sound effects produced. The fireball of March 6 was seen at a distance of 140 miles by an observer crossing glaring snow-fields in bright sunlight. As regards the remarkable sound phenomena produced on March 6, they have been so fully reported on by the news agencies as to require no account here. Seismic measures on carefully made observations of this fireball indicate that it remained luminous to a very low level in the atmosphere. Hence, if it were a normal meteorite fall, the probability would be very great that solid masses survived to fall to the earth. Furthermore, because of the great size and luminosity of the fireball, it seems likely that the largest surviving masses would be of such size as to punch out easily visible craters in the earth. Yet in this, as in the two earlier cases, no trace either of meteorites or of the effect of meteoritic impact on the earth has been found.

In view of the very puzzling nature of the three major incidents discussed above (and of many other unexplained minor incidents of similar nature), I wish to repeat the recommendation I made in the case of the Lubbock and Durbo fireball falls, namely, that the C.A.I. arrange to secure photographic coverage of the area in which fragments from the March 6 fall should have landed. (Preferably, the photo-reconnaissance missions should secure stereo coverage of the area centered for us in the Four Corners region near the junction of Colorado, New [illegible] Mr. Capt, Hq. USAF, DAS/Opns, Photo and Recon.)

After a careful study has been made of the photographs of the [illegible] area [illegible] with ends at 3 and 5 miles, respectively, the major axis extending from (about) Lat. 36° 24', Long. 108° 10' to Lat. 36° 31', Long. 108° 5', [illegible] Geog. Surv. Chart), it is recommended that consideration be given [illegible] to enlarge the [illegible] area in which meteorite fragments appear to have [illegible].

In making this recommendation, I am greatly influenced by the probability that the fireballs [illegible] are due to meteoritic [illegible] is confirmed by recovery of

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UNCLASSIFIED

File 24-0
Subj Anomalous luminous phenomena 21 Mar 51

"meteorites when more extensive air and ground search is made. I do not feel that the effort expended by the Air Force in conducting such searches would have been wasted. Meteorites recovered soon after their fall have, at present, a military value far in excess of the scientific importance they have always had...."

3. ACTION: This District Office is not taking any action other than forwarding this report in accordance with AFOSI Letter No. 85, dated 23 October 1951. In the event that there are any new developments or consistent facts pertaining thereto, they will be forwarded in accordance with the distribution of this report.

1 Incl
Sect Aero Chart
(S-h)

RICHARD H. COX
Lt. Col., USAF
District Commander

DIST: AMC (Dup) w/incl
AFSWC

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DOD DIR 5200.10

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

AIR MAIL

THE INSPECTOR GENERAL USAF
17th DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
KIRTLAND AIR FORCE BASE, NEW MEXICO

File No: 2b--0

22 March 1951

SUBJECT: Anomalous Luminous Phenomena
Marshall of 1951., March 6, 11:30

TO: Director of Special Investigations
Headquarters, United States Air Force
Washington 25, D. C.

1. Reference is made to the attached Spot Intelligence Report, subject as above, dated 21 March 1951.

2. Dr. [redacted] is of the opinion (see third paragraph of Dr. [redacted]'s statement, attached report) that a photographic coverage of the area in which fragments from the March 6 fall should have landed may produce data of value to the Air Force. The 17th District OSI has not expressed an opinion concerning this matter but contact was made with headquarters, Special Weapons Command, in an attempt to secure photographic coverage. The Director, Security and Intelligence, Special Weapons Command, after a check of his facilities, informed this office that such a mission could not be accomplished by his Command due to a shortage of equipment and personnel.

3. Reference the fourth paragraph of [redacted]'s statement, attached report; this office has informed Dr. [redacted] that the 17th District OSI does not concur in the recommendation that Air Force personnel be assigned to ground search in the area in which meteoritic impact appears to have occurred.

4. The attached report is forwarded for your information and review. It is requested that this District be informed if your Headquarters deems it advisable to secure photographic coverage of the area as outlined on the attached map.

1 Incl
Spot Intel Rpt, AFMarsh,
w/1 Incl thereto

MICHAEL J. [redacted]
Lt. Col., USAF
District Commander

cc: AMC

Dr HYNEK'S EVALUATIONS EXTRACTED FROM PROJECT GRUDGE REPORT.

INCIDENT INDEX

1. Astronomical

   a. High probability:
   #26, 27, 30, 31, 32, 33, 34, 48, 49, 59, 60, 66, 69, 70, 94, 95, 96, 97, 98, 101, 102, 103, 104, 116, 119, 132, 136, 140, 147, 148, 158, 174, 184, 185, 187, 197, 203, 204, 208, 216, 219, 238.

   b. Fair or low probability:
   #19, 20, 23, 24, 28, 35, 36, 46, 50, 63, 67, 80, 82, 93, 100, 112, 120, 121, 129, 130, 144, 153, 165, 166, 167, 175, 192, 199, 202, 205, 220, 230, 240.

2. Non-astronomical but suggestive of other explanations

   a. Balloons or ordinary aircraft:
   #3, 11, 22, 41, 42, 53, 54, 73, 81, 83, 91, 92, 113, 114, 115, 126, 131, 138, 141, 145, 155, 156, 157, 159, 160, 161, 163, 169, 171, 173, 178, 180, 182, 188, 190, 194, 195, 196, 198, 200, 201, 209, 210, 217, 222, 235, 237, 239.

   b. Rockets, flares or falling bodies:
   #4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 25, 56, 65, 78, 106, 107, 108, 109, 133, 170, 211, 218.

   c. Miscellaneous (reflections, auroral streamers, birds, etc.):
   #39, 89, 123, 124, 128, 146, 164, 181, 189, 214, 221, 231, 234.

3. Non-astronomical, with no explanation evident

   a. Lack of evidence precludes explanation:
   #38, 44, 45, 47, 55, 57, 72, 86, 87, 88, 90, 99, 110, 117, 118, 125, 127, 137, 139, 149, 150, 177, 179, 191, 206, 212, 213, 229, 232, 233.

   b. Evidence offered suggests no explanation:
   #1, 2, 10, 17, 21, 29, 37, 40, 51, 52, 58, 61, 62, 64, 68, 71, 75, 76, 77, 79, 84, 105, 111, 122, 135, 151, 152, 154, 162, 168, 172, 176, 183, 186, 193, 207, 215, 223, 224, 225, 226, 227, 236, 241, 242, 243, 244, 134.

12,500 MILES

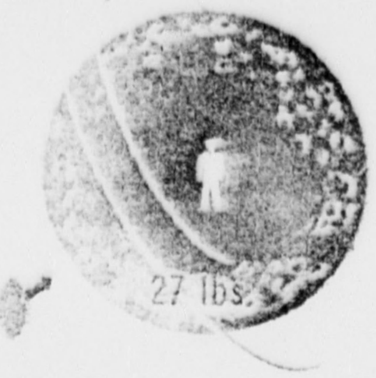
(,000 MILES

250,000((



NAZI SPACE SHIP was in the planning stage at war's end, was to circle earth at 5,100-mile range.

MOON LANDING might use elliptical orbits around the moon as a means of slowing speed of rocket.



27 lbs.



0 lbs.
216,000 miles
from earth

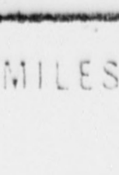
L O R E D

GRAVITY pull on man's body decreases in space.



4 5 lbs.

SOUND does not travel in space, molecules are too far apart to support propagation of waves.





8½ lbs.



57 lbs.

METEORITE of much less than one pound could destroy space rocket because of terrific speed.

FIRST space trip will be in unmanned rocket. This will give data for ships to carry humans.



118 lbs.

TEMPERATURE of space is unknown quantity, may be so high as to destroy anything passing through.

Science Illustrated chart of Space Explored and Space Unexplored

LESS THAN 50 years ago, most people thought flying machines were but dreams of crackpots. Today, man flies faster than sound.

Today, too, the kind of scientist and engineer who had confidence in man's ability 50 years ago now has confidence that someday man will penetrate space, travel to the moon and beyond. But they know that up to now the surface of what must be known before space travel becomes a reality has just been scratched. Although theory indicates what a space traveler ought to find, actual knowledge of space fades away beyond the 100 miles up to which man has sent his missiles away from earth.

To give you an idea of what man has done, and what yet must be done before space travel is accomplished, SCIENCE ILLUSTRATED has prepared this chart. Not shown here, however, are the engineering problems still to be overcome. What does a space ship crew do, for example, when there's no gravity to hold them in their seats? A lively article by John W. Campbell, Jr., in a forthcoming issue of SCIENCE ILLUSTRATED, tells how such problems might be solved.

James Cutter

500 MILES

2,500 MILES

100 MILES

HIGHEST and rarest clouds are the noctilucent ones that glow luminescently in the nighttime.

VIKING rocket, once called Neptune, will go 235 miles up, radios report on what there is back to earth.

SATELLITES of earth will be made by firing small rockets off larger ones at high altitudes.

20 MILES

U N E X

V-2 ROCKETS have made almost 40 trips, some over 100 miles up, as part of current space research.

XS-1 ROCKET plane is designed to fly up to 80,000-foot altitude, has topped any other plane.

4 MILES

E X P L O R E D

B-29's equipped with cloud chambers for cosmic ray research have made many flights to 45,000 ft.

NORTON COUNTY METEOR first exploded 37 miles above earth. Second explosion was 15 miles up.

142 lbs.

MUROC LAKE, CALIFORNIA

SKY HUE darkens with increasing altitude, becomes a velvety black beyond 50-mile altitude.

148 lbs.

TEMPERATURE

+70

−150

−100

150 lbs.

WHITE SANDS, NEW MEXICO

NORTON COUNTY, KANSAS

0

STRATOSPHERE

TROPOSPHERE

150 lbs

+70

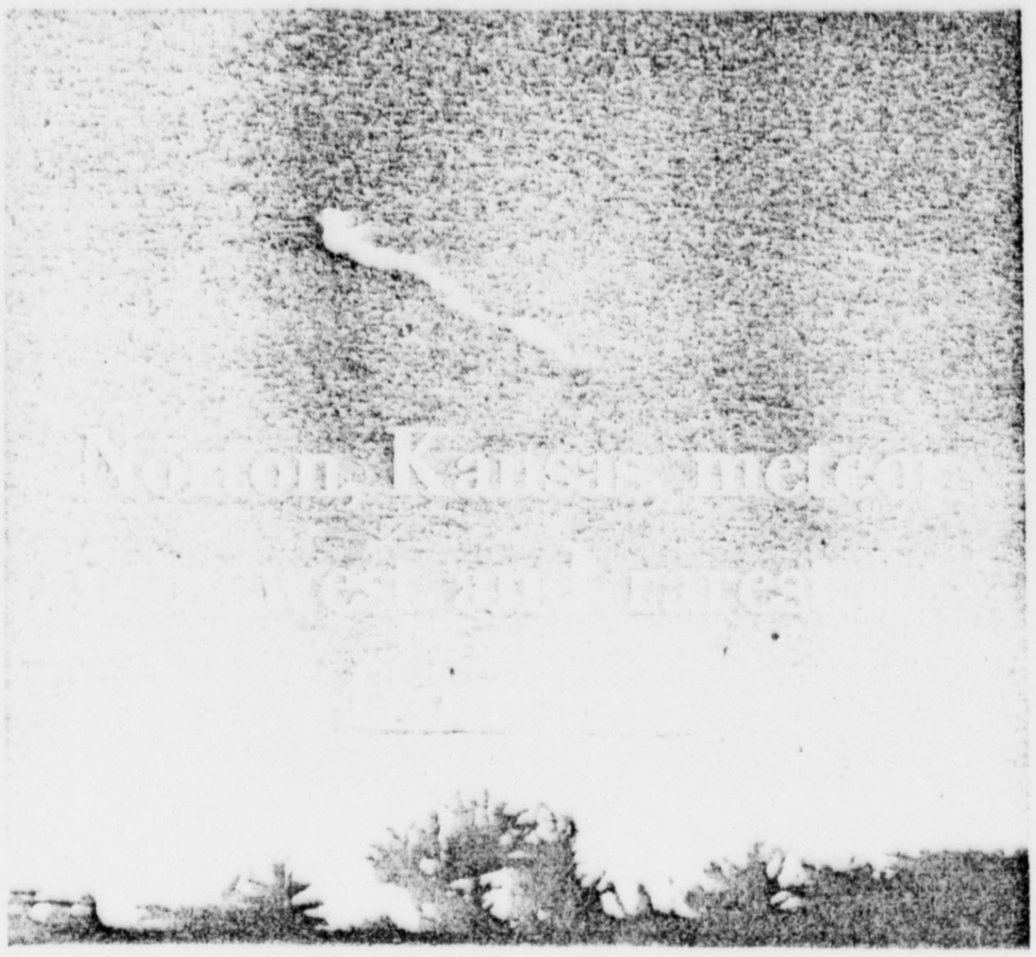
U.S.A.

MAN'S HIGHEST ascent in a balloon carried him to a 72,395-ft. altitude.

MEXICO

GULF OF MEXICO

COSMIC RAY research is done with balloons that rise to 100,000 feet



1 EXPLODING METEORITES are rarely caught in the act. Here is the Norton stone di-integrating 35 miles above earth.



2 OBSERVERS like Mrs. H. R. S. Davis, of Norton, aided in finding fragments by showing direction in which they saw explosion.



5 SURVEYS resulted in dramatic moments like one above; Mrs. LaPaz (pointing) found meteorite fragment on Tansill farm.



6 ACHONDRITIC substance of meteorite is extremely fragile, so fragment found, left, had to be carefully removed from soil.

The meteorite that exploded above Kansas on February 18, 1948, made scientific history. Because of its importance, SCIENCE ILLUSTRATED asked Dr. Lincoln LaPaz, an outstanding authority on visitors from space, to prepare the following account of the Norton County stone.

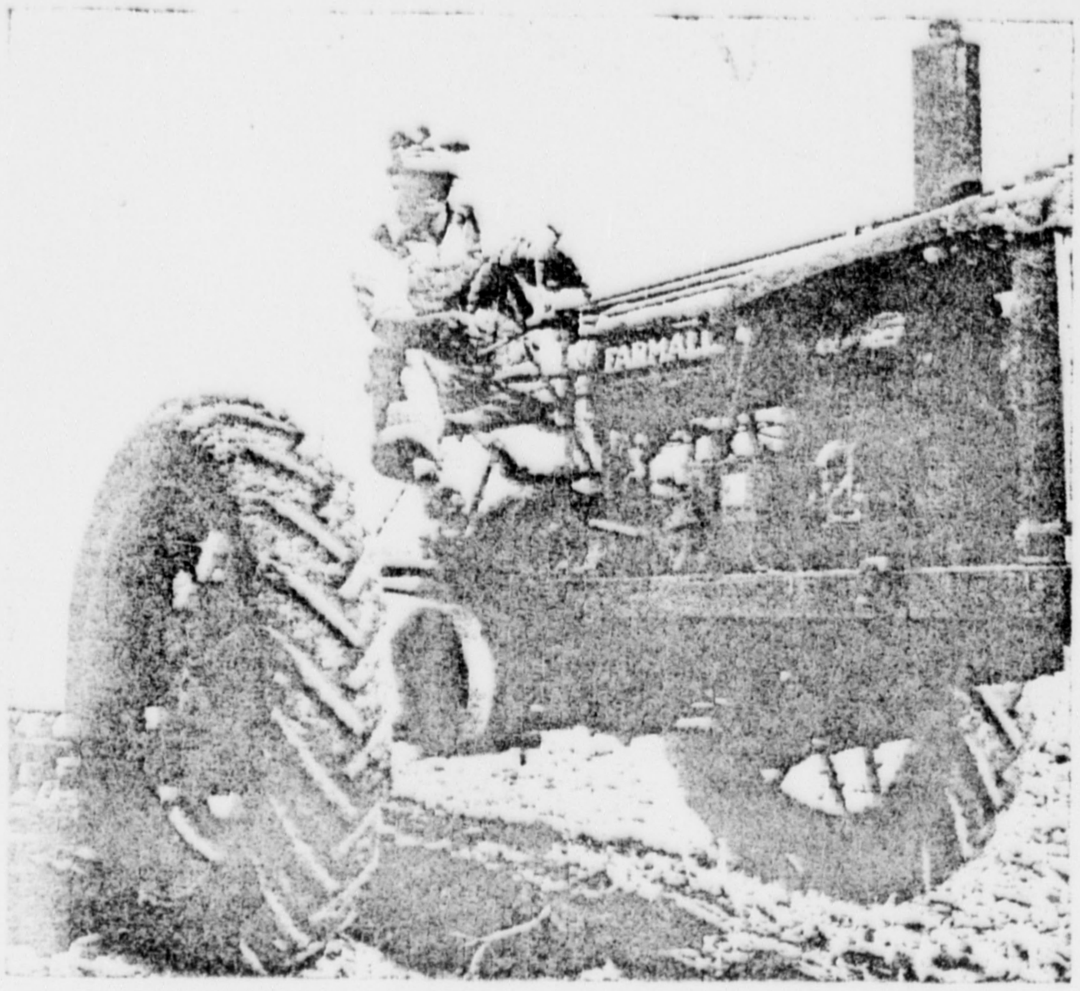
When he prepared this article, the largest fragment of the meteorite found weighed only slightly over 100 pounds. But later, Dr. LaPaz telephoned Science Illustrated from Norton to report the finding of a new section of the stone. After completing its excavation the stone had penetrated 11 feet into the ground—Dr. LaPaz reported that it weighed over 2,000 pounds, that it was 20 times as big as any achondrite (a stony meteorite) previously recovered.

This find means that the New Mexico Institute of Meteoritics, of which Dr. LaPaz is director, as well as other scientific institutions, now have additional material with which to pursue their analyses of what happens to a body traveling through space.

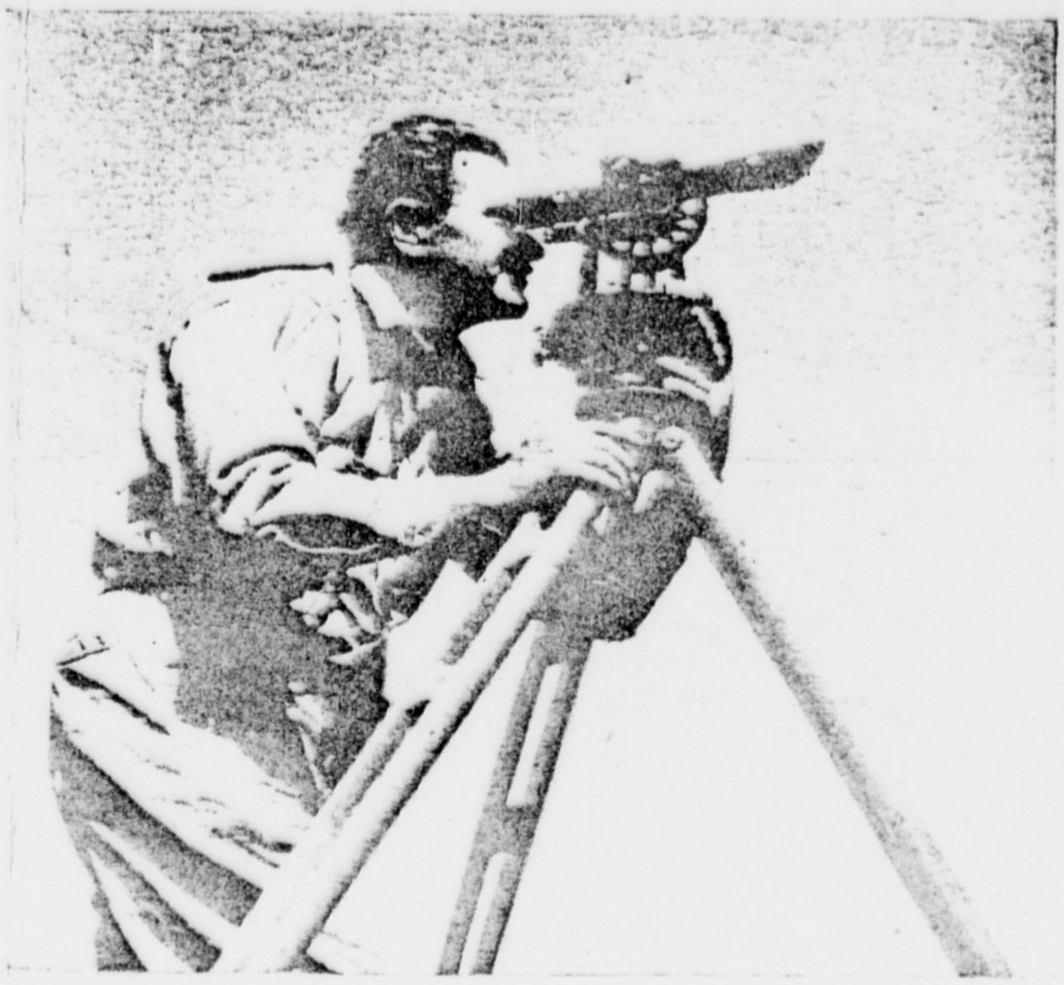
ON FEBRUARY 18, 1948, at 4:55 P. M., Mrs. Orville Manning and her son, Ralph DeWester, were walking in the backyard of their home on the huge McKinley Ranch in Norton County, Kansas. Twenty odd miles west and south of the Mannings a convalescent, shell-shocked veteran was loading fodder on the farm of W. J. Yoho. A few miles south of the Yohos, Creta Carter, 11 years old, of Jennings, Kansas, was stretching up to reach a clothesline built for adults. Some ten miles east of the Mannings, the bay mares of Dale Severns favorite team were grazing quietly on the grassy slopes of the pasture that had been their home for many years.

Seconds later, Mrs. Manning and Ralph, petrified with astonishment, were gazing upward at an angry boiling cloud, showing an occasional reddish streak, that had suddenly blossomed out of the clear blue sky. The air around them seemed filled with unearthly whizzing sounds.

On the Yoho farm, the veteran crouched in a state of collapse while a cannonading louder than any that he had ever heard in Europe beat down from the sky.



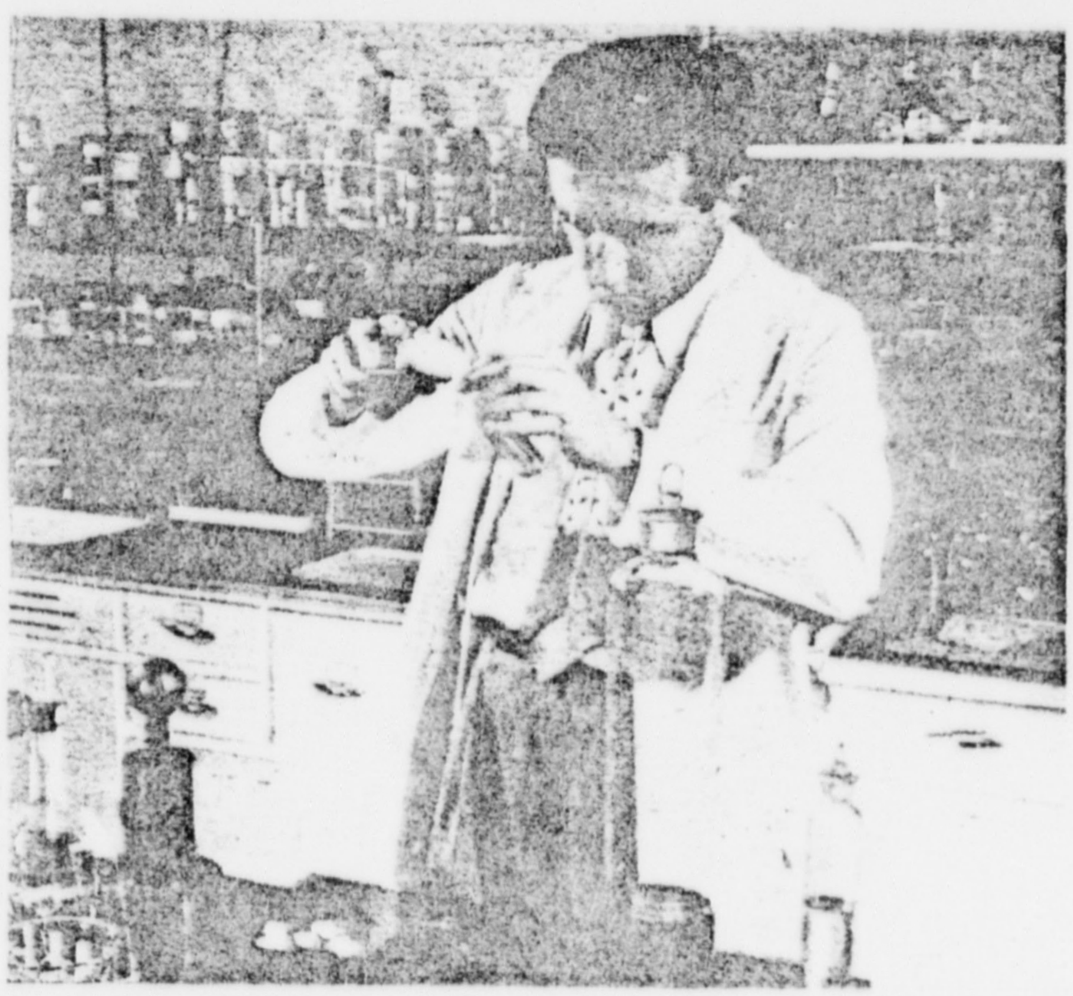
3 FIRST FRAGMENT of Norton stone was found by George Tansill while harrowing a clover field with his tractor.



4 SEARCH PARTIES organized by Dr. Lincoln LaPaz, above, used transits to locate spots where fragments may have fallen.



7 SCIENTIFIC value of meteorite pieces caused residents of Norton County to submit even ordinary rocks for examination.



8 RADIOACTIVITY studies of fragments are made at Chicago's Institute for Nuclear Studies by Dr. Harrison Brown (see text).

In Jennings, tiny Crera, undismayed by both a brilliant fireball that had flashed centrally across her field of view, and strange thundering sounds that followed its passage, was marking very carefully where the fireball had disappeared behind the town's tallest building.

On the Severns' farm, the bay mares, trapped on their sides between the precipitous walls of a narrow muddy gully into which they had blundered while racing desperately away from the deafening noise, were proving blindly toward suffocation.

Similar experiences were recorded throughout several hundred square miles in northwestern Kansas and the adjacent portions of Nebraska. Near the center of this vast territory, in Norton, Norcatur and Oberlin, Kansas, and in neighboring towns, these noises were of unparalleled intensity. Thousands of persons driven out of doors by these startling phenomena saw mushrooming far overhead clouds compared by many to those accompanying atom bomb explosions. Few of the observers actually saw the fireball whose flight across the sky was the precursor of all the tumult that followed. Unlike Greta Garbo, the average eyewitness did not have his face turned skyward at the crucial instant. Consequently, although the fireball was bright enough to be visible near Greeley, Colorado, approximately 250 miles away, it was seen only by a few.

For weeks after the startling events of February 18, the chief topic of conversation in Norton County was the nature of the fireball and the explosive noises and long enduring, high-level clouds that attended its flight through the sky. Scientists unhesitatingly advocated a meteoritical origin for these phenomena. But most the populace, influenced by the state of international relations, attributed the "Norton incident" to a rocket missile possibly launched by the White Sands Proving Ground, or directed Kansasward by an enemy country.

(*Continued on page 68*)

TURN THE PAGE FOR ROUNDUP
CHART OF FACTS ABOUT SPACE

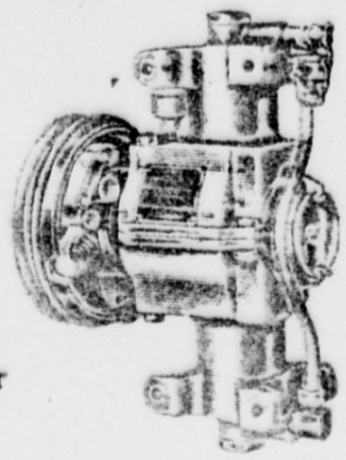
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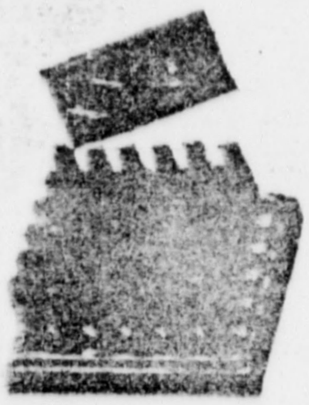
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NORTON METEORITE

(Continued from page 23)

Shortly before 6:00 P. M., on February 18, an account of the Norton incident reached the Institute of Meteoritics of the University of New Mexico through Lt. R. E. Young of the Kirtland Field Civil Air Patrol office. In the next few hours additional information was secured through C.A.P. channels and long-distance calls. Then a huge volume of correspondence was carried on with actual observers of the fall in Kansas and Nebraska. Eyewitnesses were visited by Institute of Meteoritics representatives, to obtain transit measurements of the position of various points on the meteor path as seen by them.

Fragment of Meteorite Found

As soon as decent weather permitted full-scale field search, an Institute of Meteoritics party entered the area in which observers' lines of sight to the end point of the meteor's path intersected. On April 28, they found a fragment of the meteorite itself in the hands of George W. Tansill, almost the first farmer interrogated in the intersection area. Mr. Tansill had picked up this fragment on April 6 and being familiar with the rocks of the area, knew at once that it was foreign to the region. However, he had to wait until the arrival of the Institute of Meteoritics party to have his surmise that it was a meteorite confirmed. Further search resulted in the discovery of several hundred additional meteorites, mostly quite small. Still later, a mass weighing over 100 pounds was found by Ralph DeWester and Mrs. Haskell McKinley, deeply buried in an area already searched by the Institute of Meteoritics party.

These discoveries and the laboratory examination of the materials recovered showed that the "Norton incident" resulted, not from the explosion of a rocket, guided missile, or satellite vehicle, but solely from the fall of a meteorite. Further, the Norton County meteorite, as scientists labeled it, was of an extremely rare and interesting type.

Three Main Groups

Meteorites, the very occurrence of which was denied even by scientists only a little over a century ago, are now known to be classifiable into three main groups. Scientists label one group the *irons*. These resemble closely fragments of a nickel-iron core such as the earth is believed to possess. Another group is the *iron-stones*, presenting similarities to fragments of the intermediate zone of silicates mixed with nickel-iron, thought to surround the core of the earth. Finally, there are *stony meteorites* or *aerolites*. They resemble in composition and structure fragments of that portion of the outer rocky zone (lithosphere) of the earth lying beneath the superficial granitic layer.

Long ago, Boisse and Meunier, reflecting on the curious *density spectrum* of the meteorites, ranging from the very dense irons to the lightest aerolites, were led to conjecture that the meteorites might be simply the fragments of a body, in constitution much like the earth, which had been shattered by some catastrophic disruption. Half a century later, in 1901, Farrington of Chicago was independently led by consideration of the *structural characters* of meteorites to theorize that they originated in the disruption of a spheroid of subplanetary dimensions. Quite recently, Harrison Brown of the University of Chicago, was awarded the American Association for the Advancement of Science prize for his remarkable discoveries supporting the "meteorite-planet" theory. At the present moment, this theory of the origin of meteorites is certainly on a firmer basis than any of the many competitive theories.

If we assume that a meteorite-planet once existed, it appears likely, on the basis of the discovery of such achondritic meteorites as those of the Norton County fall, that this planet had, before its disruption, a lithospheric zone like the earth's.

Obviously, the biography of a specimen as rare and significant as the Norton County meteorite is interesting to scientists and laymen alike.

Cause of Disruption Unknown

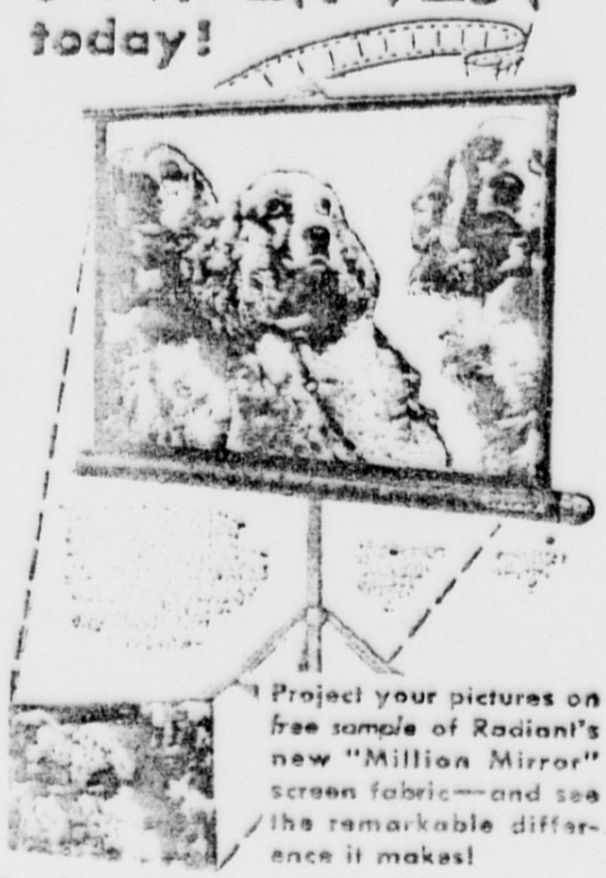
Until the disruption of the meteorite-planet, the particular mass that fell in Kansas on February 18, 1948 must have lain quite deeply buried in its lithosphere. Just what caused the disruption of the meteorite-planet, we have no certain means of knowing. It may have been an internally induced explosion, tidal disintegration, or a collision between the meteorite-planet and another planet.

The last of these possibilities now seems to be the most probable. Certainly it offers the most sensational possibilities, but these are not always developed with a weather eye on the hard facts. For example, in April, 1948, a popular weekly of enormous circulation ran a lavishly illustrated account of the newest theory of the origin of the solar system, giving considerable space to an illustration of the collision between the meteorite-planet and another planet, both moving between the orbits of Mars and Jupiter.

Unfortunately, the ghostly wakes trailing behind the colliding planets and the caption "head-on collision" make only too clear that the planets in question were regarded by the artist as moving in *opposite* directions about the sun—a most distressing error since the newest

(Continued on page 70)

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NORTON METEORITE

(*Continued from page 68*)

theory of the origin of the solar system, like all such theories that have gained any measure of acceptance, only gives birth to planets moving in the *same* direction around the sun! Considering the kinetic energies involved in the impact between a meteorite-planet moving in a nearly circular orbit and another planet traveling in the same direction about the sun but following a more eccentric orbit intersecting the first, it is easy to see that a head-on collision of these bodies is not required in order to bring about their fragmentation or even their partial vaporization.

Granting that some sort of collision between planets resulted in the disruption of the meteorite-planet, the Norton County meteorite was "born" sometime within the last billion years or so somewhere in the ring of space enclosed between the orbits of Mars and Jupiter. We can designate the *place* a little more precisely than the *time* of birth because a great multitude of the Kansas meteorite's bigger brothers can actually be observed circulating about the sun between Mars and Jupiter. These are in the region where a curious law, long ago discovered by Bode, predicted that a planet should exist. This "missing planet" of Bode and our hypothetical meteorite-planet are now believed to have been one and the same.

Same Point at Same Time

How long the Norton County meteorite continued to move in an orbit lying far out beyond that of Mars, we do not know. However, eventually it was thrown, probably by the effect of the giant planet Jupiter, into a less circular orbit. Some portion of this lay within and nearly or actually intersected the orbit of the earth. The orbit may have been traversed by the meteorite countless times, each passage near or through intersection with the earth's orbit representing a potential meteorite fall that failed to materialize simply because the earth-target was not there to be hit. Finally, on the late afternoon of February 18, 1948, the earth and the meteorite arrived at the same point in space at the same time. The latter, rushing at many miles a second down through the terrestrial atmosphere, gave rise to the startling effects described above. All of these phenomena originated in the extremely rapid transformation of the enormous kinetic energy of the rapidly moving meteorite into other forms of energy, such as radiant-, ionization-, acoustic-, and mechanical energy, as a result of the atmospheric resistance to the motion of the meteorite.

Initially, in the rarified outermost layers of the atmosphere at elevations of 100 miles or more, this resistance was a bombardment of the bare outer surface of the meteorite by individual air molecules. As the meteorite penetrated into the denser layers of the atmosphere, this bombardment rapidly increased in intensity. The heat generated by the countless molecular impacts distilled off enough meteoritic material to generate a mantling atmosphere of vapor about the solid core of the meteorite. This greatly increased the effective size of the target exposed to bombardment by the air molecules.

Effects Became Spectacular

At about this stage the meteorite first became visible as a bright meteor or shooting star. From this point on, the effects produced by air resistance became more and more spectacular; the meteor blazed out into a fireball so brilliant as to be visible for at least 250 miles. The relatively fragile meteorite exploded several times under the increasing air pressure (one such explosion seems to have occurred at the unusually great height of 37 miles). These explosions resulted in "smoke" clouds and trails that were one of the most widely observed features of the Norton County fall. Finally, the relatively small solid fragments of the meteorite that survived whizzed down to earth accompanied or followed by the bedlam of sounds produced by the swift passage of the meteoritical projectile through the air.

Scientists at anytime would welcome a meteorite as unusual as the Norton County fall. Manned rockets and spaceships seem just around the corner and, with the advent of such vehicles, a premium will be placed on every scrap of knowledge that might be of value to the etheronauts.

Right now fragments of the Norton County meteorite are being studied painstakingly by workers at the Institute of Meteoritics at Albuquerque and by Dr. Harrison Brown at Chicago University's Institute for Nuclear Studies. Their findings, which will be greatly aided by assistance from volunteers who report meteorite finds, will add to the growing pile of knowledge that will be needed before manned rockets can fly out of the earth's atmosphere.

Problem No. 1

"The terrifying efficiency of science, the terrifying inefficiency of politics, make in combination, probably the most difficult and almost certainly the most urgent problem in the world's agenda."

—DENIS W. BROGAN

[redacted]

18 March 1948

INTERVIEW WITH MR. OSCAR E. MONNIG
Secretary, National Meteoritical Society

1. On 13 March 1948, while on a navigational training flight to Ft. Worth, Texas, Major Melvin W. Faulk interviewed Mr. Oscar E. Monnig. Mr. Monnig is Secretary of the National Meteoritical Society. He has been actively engaged, as an amateur, in research on and the collection of meteorites since 1930, and hence is regarded as an expert on the subject.

2. Mr. Monnig quoted two other authorities on the subject. Their names and addresses are:

a. Professor H. H. Nininger
P.O. Box 1171
Winslow, Arizona

b. Mr. C. C. Wylie
University of Iowa
Iowa City, Iowa

3. Major Faulk queried Mr. Monnig specifically on the explosion of a supposed meteorite at 1705 CST, 13 February 1948. It was stated that this phenomenon was definitely that of a meteorite, or daytime fireball. The most conclusive evidence of this is a photograph taken of the dust cloud left by the fireball. This photograph was taken from a point 9 miles north of Norton, Kansas by Duane E. Gray of Norton, Kansas. Mr. Gray has sold the copyright to this photograph to: N.E.A. Service, Inc., 1206 W. Third Street, Cleveland 13, Ohio. Mr. Monnig said during the flight of a meteorite outside the atmosphere of the earth, it is believed that, as a black body, it achieves a temperature of about 4°C. Upon reaching the air layer of the earth, it becomes friction-heated and is subjected to increasing pressure; this causes a release of a trail of gases which usually explode at an altitude of about 20 miles above the earth. After the explosion, a visible dust cloud remains in the atmosphere. The meteorite now usually consists of a cluster of small stones which continue on to strike the earth. Their pattern of impact depends upon the inclination of their flight path with the earth's surface, and varies from slightly oval to an elongated ellipse. If this flight path is observed, the point of impact is calculated, and interested parties, such as Mr. Monnig, make a search for the particles. The particles, when found, usually resemble small stones and are composed chiefly of silicates. There may be a burned shell surrounding the particles, usually about 2 to 10 mm. thick. Weights are ordinarily of the order of a few ounces.

4. Final evidence that the 13 February incident was a fireball will be the discovery of meteorite particles. The discovery will probably be reported by Professor Nininger, since the meteorite is calculated to have fallen in his "territory". It is a matter of ethics among meteoritical enthusiasts that they do not poach on areas already canvassed by another collector. Discovery may occur very soon, or it may be as long as 12 months before any particles are found.

[redacted]

5. Mr. Monnig exhibited a series of four photographs taken of a meteorite dust cloud or "train" taken on 20 May 1944 by Cpl. A. L. Asnis, ASN 32790171, c/o Photo Section, PAAF, Pampa, Texas. The present address of the corporal is unknown, but his photographs are copyrighted. Acquisition of these and other photographs of similar nature would be valuable for Project "SIGN" for comparative purposes. Mr. Monnig requested that if the copyright owner of these photographs is located, he be informed so that he may obtain additional copies.

6. Mr. Monnig quoted the book, "The Book of the Damned" by Charles Fort as an interesting collection of unexplained aerial phenomena. He said that the incidents are authentic, but Mr. Fort's conclusions and interpretations are fantastic.

7. Mr. Monnig said that he will keep this office informed of his opinions on any future sightings of aerial phenomena that come to his knowledge.

Melvin W. Faulk

MELVIN W. FAULK
Major, USAF

[redacted]

6

of February 18 over northern Kansas was just that, inasmuch as meteorites have been recovered from it." There were found, beginning April 24, first several smaller fragments up to one of 4 1/2 pounds. Then a disturbed spot in a clover field led to the digging up of a piece of some 109 pounds embedded about two feet in the soil. The stone is what is termed as an "achondrite", a technical name for an unusual type of stony meteorite. It is reported to be of a type which will deteriorate rapidly.

A photograph of the trail of the meteor, made by amateur photographer Duane W. Wray of Norton, shows the vapor trail left in the sky by the explosion of a meteor which was seen in Oklahoma, New Mexico, Colorado, Kansas, and Nebraska. It was made at Wray's home, nine miles north of Norton, just four minutes after the meteor exploded. A smudge of blue-white smoke remained in the sky for an hour February 18th. This photograph is in file under Incident #101.

Further remarks are contained in supplement.

CHECK-LIST - UNIDENTIFIED FLYING OBJECTS

Incident # 101

1. Date 18 February 1948
2. Time 5:01 P.M.
3. Location ~~Norcatur~~ NORTON, Kansas
4. Name of observer M. R. Krohbiel account (taken from newspaper)
5. Occupation of observer Editor
6. Address of observer Norton, Kansas
7. Place of observation Norcatur, Kansas
8. Number of objects One
9. Distance of object from observer N/S
10. Time in sight N/S
11. Altitude 30 - 35 miles above earth
12. Speed N/S
13. Direction of flight N/S
14. Tactics N/S
15. Sound One big explosion - "afterwards a lot of little explosions"
16. Size N/S
17. Color Bluish-white smoke smudge
18. Shape Mushroom
19. Odor detected N/S
20. Apparent construction Meteor
21. Exhaust trails ~~None~~
22. Weather conditions N/S
23. Effect on clouds N/S
24. Sketches or photographs Photo of vapor trail left in sky by explosion
25. Manner of disappearance Disintegration
26. Remarks: Oscar Monnig, of the Texas Observers, mateur Astronomy, 1010 Morningside Drive, Ft. Worth, offers "tangible proof that the fireball

Hq, AMC Box 944
Wright-Patterson Air Force Base
Dayton, Ohio
19 March 1948

Subject: Print on Kansas Incident.

M. E. A. Service, Inc.
1206 W. Third Street
Cleveland 13, Ohio

Gentlemen:

It is my understanding that your company bought the copyright to a photograph taken on 18 February 1948 by [redacted] of Norton, Kansas. The subject of this picture was a meteorite trail appearing over Kansas.

I am interested in securing a print, and would therefore appreciate an early reply giving size and cost of such a print.

Very truly yours,

JAMES C. BEAM
Lt Colonel, USAF

C O P Y

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New York 1, N. Y.

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April 2, 1948

James C. Beam
Lt. Colonel, USAF
Hq. AMC Box 944
Wright-Patterson Air Force Base
Dayton, Ohio

Dear Sir:

Our photo #862038 of a meteorite trail over Kansas, referred to in your letter of March 19, is made available for your personal use only (framing or scrapbook) at $2.12. However, should you desire to reproduce the photo or employ it in any other way we would have to know how it is to be used before being able to submit a quotation.

If you do want the picture for your personal use only a print will be forwarded upon receipt of your check or money order in the above amount.

Many thanks for calling on us.

Sincerely,

Roy Mehlman
Special Service Dept.

rm/lc

C O P Y

MCIA/JCB/amb
Wright-Patterson Air Force Base
XXXXXXX
15 April 1948

MCIA

A request for Photo - Morton Kansas

Acme Newspictures
Division of NEA Service, Inc.
New York Bureau
461 Eighth Avenue
New York 1, N. Y.

ATTENTION: Mr. Roy Mehlman
Special Service Department

Gentlemen:

Reference is made to your letter of 2 April 1948 in answer to letter from Lt Colonel James C. Beam, dated 19 March 1948.

This Command is currently engaged in an intelligence study involving the identification of meteors and meteorites. It has been brought to the attention of this office that your company has the copyright of a photograph (#862088) of a meteorite trail over Kansas. A copy of this photograph of a size sufficient to give good detail would be most helpful in this intelligence study. Should this be made available, it would be used only locally and further distribution or reproduction would not be made.

Sincerely yours,

W. R. CLINGERMAN
Colonel, USAF
Chief, Tech Intelligence Div
Intelligence Department

MCIA/JCB/amb
Wright-Patterson Air Force Base
xxxxxxx
23 April 1948

MCIA

Acknowledgment - Photo Received

Acme Newspictures
Division of NEA Service, Inc.
461 Eighth Avenue
New York 1, N. Y.

ATTENTION: Mr. Roy Mehlman
Special Service Department

Gentlemen:

Acknowledgment is made of your photograph "The Trail of a Meteor", KC 862088, which was received this date.

This Headquarters appreciates the considerate cooperation of your company in donating this photograph for use in an intelligence study.

Sincerely yours,

W. R. CLINGERMAN
Colonel, USAF
Chief, Tech Intelligence Div
Intelligence Department

Buildings Rocked, Windows Broken

Meteor Blast Alarms Thousands In Midwest

NORTON, Kan., Feb. 19.—(UP)—Authorities said today they believed a terrific explosion high in the sky over Kansas last night was caused by a meteor that blew up when it entered the earth's atmosphere.

Concussion from the blast broke windows, rocked buildings and terrified residents over a wide section of Kansas, Nebraska and Oklahoma.

The meteor left a smudge of bluish-white smoke extending across a wide segment of the sky just before it exploded about 5:01 p. m.

No one appeared to have seen the actual explosion. There was no flash.

The explosion terrified thousands of persons across the three-state area. Many believed their houses had been hit by trucks. Dozens of windows were shattered.

"It sounded as though the gasoline station a block away had blown up," said M. R. Krehbiel, editor of the weekly Norton County News.

"Afterwards there were a lot of little explosions, something like the rumble after a big thunderclap. We had a cracked window in our office and the concussion knocked out the glass."

Krehbiel said the meteor apparently exploded directly over the town of Norcatur, Kan., 16 miles west of here. By estimating the angle from the earth to the point of explosion, he decided the meteor blew up about 30 to 35 miles above the earth.

"It was just about the most exciting thing that has happened around here in a heckuva long time," he said. "Everybody in the area ran out of their houses. They stood around for hours looking at that long streak of smoke up there."

The smoke trail started over Nebraska to the north and ran southward, twisting over upon itself in "jelly-rolls" like the vapor trail of a plane out of control. It was broad at the explosion point and narrowed back to a point at the spot where the meteor first entered earth's atmosphere.

The blast was felt as far away as Buffalo, Okla., 230 miles south of here, and Sharon Springs, Kan., 115 miles southwest. Other reports came from Dodge City, Brookville, Beloit, Solomon, Salina, Russell, Concordia, and Osborne, all south of here.

Many airfields in the vicinity dispatched search planes in the belief that an airplane had exploded in flight.

Many people believed that a jet airplane had exploded instead of a meteor. Scientists, army officers and other officials said that was impossible because of the extreme altitude of the explosion. Some people blamed the explosion on "flying saucers."

Two Army B-29 bombers circled over the area until nightfall, but the Army did not issue a statement.

Thousands of persons in automobiles converged on Norton and Norcatur last night in the belief a major catastrophe had occurred here. Many roads were jammed with cars lined up on the shoulders, their occupants craning their necks from the windows to gaze at the meteor's trail and watch the circling B-29's.

The smoke trail still hung in the air wher night fell.

The meteor apparently disintegrated. No fragments were found today.

A Meteor Explodes?

When the sound of a loud explosion filled the air and brought terrified Kansans to their bedroom windows, and sent them, peering, out-of-doors, there were many who thought of jet planes and gas tanks. Some few bethought themselves of flying saucers charged with powerful substances.

In search for an origin, authorities came to the conclusion that a meteor had exploded. It may have been a meteor, but we do not find this solution to be comforting. For how can we, this human race, plan to feather our nests, or plot for a third world war or arm against it if we are to be harassed by fireworks from stellar regions?

We had been depending, up to the time of the explosion, on this earth being hung securely on strands of attraction and counter-attraction. We had ordered seeds, confident that the sun would be bringing more and more of heat to this side of the equator. We had looked forward to sitting on a grass bank some June evening, there to watch the full moon at the horizon's edge bob in the heat waves like a balloon.

And now along comes an exploding meteor to lower our sense of security and remind us that we are nothing considerable. That a human plan is a cobweb hung in mighty winds. That the night sky, which seemed a pleasant panoply, is a whirlpool of darkness and light. But we are not left desolate, for looking out on infinitude we become humble, and we place the little hand of our thought into that of Magnificence.

7 X 9 GLOSSY
PHOTO OF
THE TRAIL OF A
METEOR FROM THE

NORTON, KANSAS
SIGHTING OF

18 FEB 1948

UNCLASSIFIED

8502280 JM



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

AFOIR-CO-5
(L-6-121)

9 July 1948

SUBJECT: Explosion in the Sky Near Norcatur, Kansas

TO: Commanding General
Air Materiel Command
Wright-Patterson Air Force Base
Wright Field, Ohio

Forwarded as a matter pertaining to your Command.

BY COMMAND OF THE CHIEF OF STAFF:

ROBERT TAYLOR 3rd
Colonel, USAF
Chief, Collection Branch
Air Intelligence Requirements Division
Directorate of Intelligence

1 Incl
Cy ltr, 20
Feb 48

(COPY)

[redacted]
Pueblo, Colorado
February 20, 1948

Office of the Chief of Staff
U. S. Army
Washington, D. C.

Subject: Explosion in the sky near Norcatur, Kans. 4:00 p.m. (MST) February 18, 1948

Purpose: To call attention to some peculiarities in connection, whether coincidental or not

According to an AP bulletin appearing in the Pueblo CHIEFTAIN for February 18, 1948, some object was seen moving eastward across the sky on the late afternoon of February 18th, and when this thing reached a position approximate to Norcatur, Kansas, exploded, or disrupted, or disappeared. The explosion is said to have been terrific.

Directions given as to the progress of this appearance indicate that it moved from west to east.

Information contained in the dispatch under a Denver dateline indicate that while many would call this object a bolide - e.g., exploding meteor - the astronomers of Chamberlin Observatory (Denver) did not so assess it: it is said in the dispatch that these officials could offer no explanation of it.

If this is the case, the apparance is anomalous, and may lend itself to other meteoric explanation.

A sketch-diagram of the earth and moon's orbit reveals a peculiarity in connection with the appearance, which may be significant.

If a line is stricken at right-angles across the meridional position of the site of explosion of this meteor at hour angle four o'clock (local time) and this line be considered the west-to-east course of the object, then it will be seen that if this line is continued outward into space toward the orbit of the moon it will intersect the lunar orbit at a place near to where the moon would be at from 80 to one hundred hours after the explosion took place.

New moon occurred at 9 D 10 H 2 M February; First Quarter at 17D 8H M. February -- the moon moves approximately 12.5 degrees per day along its orbit.

It is held by rocketry experts (example, WILLY LEY - see his ROCKETS, p. 192, diagram and note in connection therewith) that it would take about 100 hours for a rocket-craft to negotiate the distance from Earth to Moon.

Prior to its explosion over Norcatur, this object of Feb. 15th was variously reported as a "falling plane", a "jet plane", and a "ball of fire". It is said by some to have left a trail of smoke behind it.

It is the suggestion of this writer that the Army collect and assimilate reports on this object, with a view to determining where it was seen as an object trailing smoke and where as a ball of fire.

If this thing is a rocket of some kind headed for the moon, it might first have been seen as a streak of smoke, then later as a ball of fire, and lastly as a tremendous explosion when it at last reached sufficient speed and elevation for take-off.

The writer has in mind the various and unexplained reports on "flying saucers", and bases this speculation upon a long consideration of various oddments of reports whose significance might be of space-craft from other worlds of space.

The so-called "meteoric procession" which crossed Toronto in February 1913, consisted of a number of groups of illimunated bodies traveling in groups of three and moving in "rigid formation", all pursuing a course across the same streak of the earth's surface. If a line is projected backward along this line of flight it will be seen that this line "comes out" at the position of the moon at the time. The 1913 phenomenon occurred in the mid-period of a series of reports on dirigible aircraft of appearance like zeppelins which were seen over England and whose appearance terminated - or reports on the appearances stopped - just prior to the inferior conjunction of Venus of April 24, 1913.

The writer begs to call attention to the fact that the times prior to and just after infarior conjunction of Venus are prolific in reports of strange things seen in the sky.

Also that lights have been reported on the moon from time to time, back for at least a century.

If in the future of military experiment the moon is selected as a base for the launching of rockets (which has been suggested by some writers), it may be well to look first

into reports like this one on the explosion over Norcatur and the direction of the object involved.

There is a possibility, however remote this may seem, that the moon is either inhabited or in use by other than human beings.

Yours,

/s/ [redacted]

It may do not harm to
watch the moon for
possible arrival of
this thing in the quarter
at 80 to 100 hours after
"its Departure".

[redacted]

(COPY)

FILE REF: - SIGGE-M-1

From: [redacted]
MAIN HOTEL, Pueblo, Colo

To: Chief Signal Officer
U. S. Army, Washington, D.C.

Subject: Norcatur, Kans., sky explosion of 18 February, 1948

Purpose: To show a speculation regarding the above phenomenon and another one of earlier date and to call attention to occurrences between the two which have an appearance of relationship whether coincidental or not.

March 14, 1948

The geographical position of the Norcatur explosion suggests possible linkage with other occurrences happening inside latitudinal limits arbitrarily demarkable between 43° 36' North (which is the latitude of Boise, Idaho) and 36° 10' North (the latitude of Nashville, Tenn.), a belt about 485 miles wide.

This suggestion is gained from positions given for occurrences happening between June 24, 1947 and February 18, 1948, as shall be hereinafter briefly described.

- - - - - - - - - - - - - - -

THE BOISE (Idaho) OBJECT--This was seen either beginning or ending at 330 pm 24 June 1947 and was visible for 20 minutes. It was in the western sky, was of comet-like appearance, and settled gradually toward the horizon as planetary bodies set. It was seen by Lt. Gov. Whitehead and Chief Justice Lamport. Its nature was unknown.

The peculiarity which connects this object, for speculative purposes, with the explosion of some unknown object over Norcatur, Kans., on 18 February 1948 is the seeming of a relationship between the positions of the moon for the two phenomena:

In the former case the moon was at the date of phenomenon, about 7%, 63 before the positionof First Quarter; on the second case it was about 8%.73 beyond the position of first quarter.

Since the Boise object was visible for 20 minutes before it sank this argues it was about ten degrees above the horizon when first seen. Now if a line be drawn westward and at ten degrees zenithward from the

horizon of Boise at 3:30 p.m. and another line be drawn from the position of the moon at one hundred hours before the sighting of the Boise object, and projected to the center of the earth, it will be seen that this ten-degrees-altitude and the moon-earth line intersect as a place far above a geographical position considerably to the west of Cape Blanco, in the neighborhoodof about 700 miles off the coast.

The Boise object in its appearance suggests a rocket-type of craft possibly using reaction blasts to brake itself down for a landing on the earth. The bright point and plumy tail of the description suggest this, as also its apparent fixity in space.

HOLLE'S "SHIP IN FLAMES" — Nine days after the sighting of the Boise object a forest lookout named [redacted] saw at or soon after 4:00 p.m., 3rd July, 1947, something he took to be a "tanker in flames". This was seen horizon-ward from a point in Sonoma County, California, near to Fort Ross. A search was instituted by the Navy or Coast Guard, and nothing was found. The soviet tanker ELBRUZ, which had been in the vicinity, was queried and found to be all right. This was not explained.

If this apperance had been on the horizon, there is no telling how far it may have been from the observer.

CAPE MENDOCINO BLIMP INCIDENT — Not far from the location of Holle's "burning ship" an accident occurred to a navy blimp, 1[illegible] July 1947, off Cape Mendocino.

This blimp suddenly settled into the water, slipped out its crew and rose again.

The anomaly here is that one would not expect to find drastic down-drafts of such violence as to thus upset a lighter than air craft. Possibly a downdraft accounted for the accident - but if the Signal Officer will look up the incident of the British steamer Talma which, at the time of the sighting of a luminous wheel-like phenomenon in the Gulf of Martaban, reported a slowing of the engines from some unknown cause, it may be seen that possibly forces are generated in some manner by certain unknown objects at times in the ocean, which may have physical attraction for material objects. This blimp accident occurring in waters where occurred other phenomena shortly to be mentioned, seems to have a doubtful side to it.

THE OAKLAND OBJECT — Early on the morning of 13th October, 1947, a photographer named [redacted] togehter with a taxidriver named [redacted] saw a thing "that looked like Saturn with a ring around it." It shot at terrific speed WESTWARD across the sky of the Bay area, and was seen shortly after midnight.

This may have been heading in the general direction of what may have been the goal of two later objects which roughly resemble it in description.

THE TICONDEROGA OBJECTS — According to the tanker Ticonderoga's second officer, two "flying discs" were seen heading SOUTHWEST when the ship was in 43 degrees fifteen minutes north and 124 degrees 54 minutes west, at 0620 GCT, 12th November 1947.

These may have been heading for the object seen in the Pacific off the Golden Gate, not long afterward - or possibly at the same time, if earlier reports on this are consulted.

THE PHANTOM REEF — On November 24, 1947, the Navy denied that it had found a phantom reef or other obstruction to navigation at a point about 400 miles west of San Francisco. The Navay Survey ship MAURY, sent out there in response to reports of ships that some hugh object had been seen in the water in that neighborhood, reported that when in the approximate latitude and longitude of the supposed obstruction they picked up an echo from something in the water 1600 yards from the ship; but that when they had steamed to within 400 yards of this, the echo vanished.

There seems a possible connectability between the various elements so far considered.

Later on January 7, 1948, there were occurrences in the neighborhood of Wilmington, O., Ft. Knox, Ky., Franklin, Ky., and Nashville, Tenn., all of which must be now familiar to the archivists of the Signal Office.

Something like a "flying disc" was pursued by one Lt. [redacted] and two other pilots, [redacted] being killed while in the process of attempting to gain altitude to get close to whatever it was he was chasing.

Also, in this connection, it may not be amiss to mention the deaths of two military officers who were said to have been bringing back material evidence from "flying discs" one of which was said to have met with some kind of accident over Maury Island, Puget Sound, around June, 1947.

It will be seen on inspection that the geographical locales of these incidents fit inside the belt of latitudes hereinbefore mentioned.

THE NORCATUR EXPLOSION was described in a previous letter of this writer, and it was shown in that letter that a line tangential to the meridian of Norcatur, Kans., at hour-angle 2:20 p.m., would if continued outward into space to the orbit of the moon, intersect the moon's orbit at a point where the moon would have been at about 100 hours after the time of the explosion.

According to rocketry theory, it would take a reaction-propelled craft of the rocket type about 100 hours to reach the moon.

I submit there is a likelihood that on June 24, 1947, something like a space-ship came here from the moon and upon February 18, 1948, returned to the moon.

This is of course speculation.

But has anyone yet explained the "flying discs" in terms of all the pretty-well proven facts in connection with them?

Has anyone yet devised a fuel powerful enough to kick a rocket from Earth to the Moon?

There have been hundreds of reports, during the past century, on occurrences which imply this world is visited from outside space. Absence of contact by these postulatable visiting entities may imply a state of culture far beyond ours, to the point where it would be inexpedient for their members to have to do with us en-masse.

These reports have never been seriously considered by science, which in general ignores them.

However, according to Dr. Rocht of Chamberlin Observatory, Denver, there is nothing in astronomy to explain the thing which exploded over Norcatur. Dr. Nininger's idea that the thing was a meteor flatly disregards Dr. Rocht's opinion, which may have been based on the Denver Posts' statement that a Denver woman saw the Norcatur object twenty minutes before the explosion occurred.

I submit that the Army needs men who are capable of recognizing the anomalies beforementioned when they occur, evenif only to aid in speculation regarding them.

The undersigned offers his services to that end, if the Army may wish to avail itself of them.

/s/ [redacted]

Excerpt of letter dated April 11, 1948 from Dr. [redacted], Director, Institute of Meteoritics, University of New Mexico, Albuquerque, New Mexico, to the Deputy Executive Director, Committee on Geophysical Sciences, Research and Development Board:

Thank you for the surprising documents sent me under date of March 30. As you remark, certain aspects of [redacted] letters are fantastic (for example: (1) the fireball procession of 1913, February 9, was genuinely meteoric, although a rare type of chain fall; (2) no astronomer could take seriously [redacted]s "invasion by beings from Venus or the Moon"-theory: (3) he appeals to, and biases in his favor, such untrustworthy evidence as newspaper stories, e.g., the absurd statement attributed to Dr. [redacted] of the Chamberlin Observatory). Nevertheless, [redacted] is justified in calling attention to certain incidents as unexplained, for example, the "flying lenses" (in my opinion 99% hoax and imagination and 1% real).

As regards the Norcatur, Kansas incident, I remain convinced that, like the Four Corners incident, it was a genuine meteorite fall, although one of exceptional size (again like the Four Corners fall). However, there are many curious aspects of both these falls, some of an objective nature, like the singular fact that in spite of intensive searches (admittedly under bad terrain and weather conditions), not a trace of meteoritic material has so far been found; some of a non-objective nature, like the amazing testimony given by Mr. [redacted], Mr. [redacted]n, and other witnesses of the Norcatur incident, both to members of the State Highway Commission of Kansas and to Institute of Meteoritics field survey parties. (See exhibits A, B, and C enclosed.)

Some comment on such testimony as appears in A, B, and C would seem desirable:

1. [redacted]n first reported the battery case as red hot. When I pointed out that the paper on it was not charred, his account was changed to "too hot to handle". The Institute of Meteoritics party found only two men, not four, who saw the battery case fall. The battery case has been examined by Dr. [redacted], Department of Physics, University of New Mexico, who states that it appears to be identical with the small batteries used in portable radios.

2. [redacted]s' identification of the Norcatur object as a rocket has the following support: On the morning of February 19, I talked to the tower man and two assistants at the Air Base at McCook Field, Nebraska. All three denied the Norcatur object was a fireball and described it as a black object with an extremely bright jet of flame pouring out of the rear. Furthermore, a 11-year old, and presumably unbiased, schoolgirl in Oberlin, Kansas wrote me a similar description of the "fireball."

3. A determined effort is under way to check up on [redacted] veracity (and sanity!) I have neither seen nor talked to Sammons, but another member of the Institute of Meteoritics party (Dr. [redacted] an Instructor in the Department of Mathematics) who did so believes [redacted] (who is a well-to-do farmer) to be sincere and very badly scared. Of course nearness to a big meteorite fall would scare one as badly as an atom bomb; but how could it produce such testimony as [redacted]".

The "meteoritic" incidents from the great fall of 1945, November 29 (from which no meteorites have been recovered either!) through the sequence of similar falls culminating in the Four Corners and Norcatur incidents, coupled with such things as the Ussuri incident, convince me that either the earth is under a most unusual cosmic bombardment or many of the fireballs are not meteorites at all. While I still cling to the meteoritic hypothesis, it is clear that which ever alternative is the right one, the situation cries aloud for thorough investigation.

(COPY)

EXHIBIT A

Roy W. Cox, Director of Highways

STATE HIGHWAY COMMISSION

OF KANSAS

Division 3

Norton

NOTES TAKEN AT NORCATUR, KANSAS, Night of Feb 18

Mr. [redacted] at Norcatur, tells us that at approximately 4:50 PM he was standing in the north window of the post office in Norcatur looking toward the City Hall when he was suddenly illuminated very brightly by some terrific light.

He ran outside into the street where others were looking toward the northeast at a very large cloud of white smoke high in the sky. He stated that in about a minute and a half, there was a terrific explosion followed by a heavy rumbling noise like thunder and that the smoke cloud was growing larger all the time. Also there was a white smoke trail in the sky from the southwest where the missile had come from.

He said that from the center of the street, the explosion and the first big mushroom of smoke was directly overhead and at a tremendous height.

Another man in Norcatur stated that just prior to the explosion, he had heard the motors of an airplane.

Chief Scott learned from some man in Norton that just following the explosion, something fell at his feet on the street and he picked it up, to find that it was a small flashlight battery resembling those used in 'fountain pen flashlights' and that it was red hot. After a crowd of men gathered and examined it, he was unable to findit and thinks that someone took it.

[redacted] of east of Norton was about 5 miles south of Prairie View when he heard something roaring in the sky to the west of him, far away and very high. He says that it resembled a rocket traveling northeast toward Norton direction, and that suddenly there was a terrific explosion followed by a mushroom of white smoke andthat there followed other explosions or something resembling explosions. When he saw it, it was nearing the ground or horizon, in other words, losing altitude.

[redacted] boy at Reager, was standing beside the Reager elevator and heard something high over head, looked up to see a very bright flash of light and then a loud explosion followed by a big cloud of smoke.

The airport at Norton brought about 20, 00 feet, time 4:40. Checked but no planes missing.

EXHIBIT B

Statement taken from [redacted]

My name is [redacted], and I live on a farm 14 miles west of Stockton and 1 mile north, off US 24.

On February 18 at about 5 P.M., I was standing near my hog-pen about 100' east of my house, when I heard the pheasants raising a disturbance and the chickens all rushed to the chicken-house. I looked around toward the house to see what was causing it and saw something hovering just above the house. I ran towardthe house, and it then lowered over the north end of the house and settled toward the ground. I was then very near it, approximately 6' when it stopped about level with my face, and just wobbled around for an instant, fire belching out of it and sucking back in. The thing was about 4' long, shaped something like a funnel. There was a pipe sticking out the back of it, and once as it wobbled around, the pipe was sticking right at my belly. Suddenly there was a lot of sparks showered from it, and the fire increased as if a fuse might have lighted, and it took off in a north-westerly direction very fast, gaining altitude as it went. My wife heard it leave and ran out where I stood, and we watched it go, leaving a trail of smoke all the way. Suddenly there was a great cloud of smoke in the sky, not more than 40 seconds after it left my yard, and in a few seconds or more, we heard an explosion. I then stepped off from my house to where it had been, and it was five steps. Yes, it was hot, I could feel the hear from it. Had I not been washing my car prior to the occurrence, wetting the ground, there would have been a bare spot in the yard where the thing started up because there was a great rush of fire from it when it left. It must have been quite high when it exploded.

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[redacted] ays, son of [redacted], 1½ miles east of Norton on US 36, at the Jct. of K-60, south side of highway. At about 5 to 5:30 P.M., not sure of time, was riding his horse in a pasture, when he heard something queer in the sky. Looking up to the south-west, he saw what appeared to him to be a rocket, just like he had seen during the war in Europe. It startled him, and he jumped off the horse. He then remounted, watched its course, almost on a level but losing altitude a little, and it then exploded with a big cloud of smoke, apparently over Norton, from where he was, south of Prairie View. He rode on toward home a ways, when suddenly the sound and jar of the explosion reached him. Mrs. [redacted] was home in the house, when she heard and felt something like a truck might have struck the house. She ran out of the house and then first saw the huge cloud of smoke. About 40 minutes later, a part of the smoke cloud dirfted directly over their house, and went on east over Phillipsburg.

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[redacted] at Norcatur, stated that at about 4:30 P.M. he was standing just inside the front window of the postoffice in Norcatur, when he observed a blinding flash as if someone had taken a flashlight picture. He could locate no one with a camera, but noticed several men walking to the center of the street and looking up. He then walked out to where they were and looking up, saw a high cloud of smoke in the sky almost directly overhead

but slightly east. Suddenly, about 1 and 1/2 minutes after he had seen the flash, there was a terrific explosion and jar, shaking the ground and causing the windows all around to rattle. Following the explosion, there were several loud reverberating rumblings across the heavens. He stated that the explosion must have been very high.

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[redacted], a boy living at Regar, just east of Norcatur, was outside the elevator, when he observed the explosion, looked up and saw the huge cloud of smoke. He stated that it was almost overhead but slightly west of him. He said that it was a big explosion. The elevator man was out in the elevator, when he heard the explosion. He thought that his oil-burner had exploded in the office and ran in to see about it. Finding it O.K., he ran outside to see what had exploded, saw the big cloud of smoke high overhead, slightly west.

- - - - - - - - - - -

Eastern Kansas newspaper carried a story about 6 days ago of one just like this one, coming from the south to vicinity of Iola, Kansas, where it turned west and disappeared into the sky.

- - - - - - - - - - -

Check with Chief Scott of Norton about a burned flashlight battery which fell in the street of Norton just after the explosion. It was too hot to be picked up for several minutes. Chief Scott has it.

Note: A copy of Exhibit "C" referred to in letter from Dr. [redacted], was not received.

TEXAS OBSERVERS
AMATEUR ASTRONOMY
1010 Morningside Dr.
FORT WORTH 3, TEXAS

OSCAR E. MONNIG

Visit with Maj Faulk dispatcher for 13 March 48

1948, March.6.

Commanding General,
Air Materiel Command,
Wright-Patterson Air Force Base,
Dayton, Ohio.

Attn. Major M. W. Faulk (MCIA)

Dear Sir:

I shall be very glad to talk with you when you are here the week-end of March 13th, if I am in town. I probably shall be, but sometimes at this time of the year I do go off on week-end trips.

Meanwhile, regarding the fireball of Feb. 18, near 5 p.m. C.S.T., over northern Kansas, I can say there is every reason to believe that this object was a normal daylight fireball which detonated and left a dust cloud and in all probability dropped meteorites just beyond the sub-final point. I have not personally investigated and rely chiefly on newspaper accounts plus some correspondence with a few witnesses, one friend who went there to investigate and the newspaper editor at Norton.

The true path azimuth (direction of flight as projected on the ground) of the fireball was roughly North 70° East. The slope (angle of descent with the horizontal) I am mostly guessing at, but it was probably 30° or less. The visible end point and initial cloud position was nearly over Reager, a little town near Moreatur, Kansas, probably at a height of less than 20 miles, perhaps as low as 5 to 8 miles. Fragments should be a few miles (5-10?) beyond this sub-final point; one investigator thinks in the region just northwest of Norton, Kansas, but I think there is a possibility they are north or a little northeast of Norton.

Prof. H. H. Nininger of Winslow, Ariz., made a trip there and appealed to the general public to watch for fragments. I supplied similar information and the same request. Reliance on an informed and indoctrinated public to pick up pieces is the most economical and feasible way to find them. Mr. H. O. Stockwell of Hutchinson, Kansas, who searches for meteorites with a radio detecting device, made a trip to the region at once but has had no success. Personal, individual searches are normally not economically practical in such cases, but in this instance I think might yield a result.

Answered Feb 17 5

It is a fair guess, from the dust cloud, that the meteorite involved was relatively friable and crumbly, and that many, if not all, of the fragments, will be small--hand sample size at most, perhaps no larger than walnuts or pecans. Stones of this type of meteorite are notoriously lacking in metal, which makes them hard to find with any detecting apparatus. Such types also weather easily and if not found within a few hundred or years probably are lost forever.

A photograph of the cloud was taken by an amateur but all copyright sold to NEA. I have a copy of the picture here.

It is barely possible that I will make a trip soon to make effort to get pieces. I know of no one who has retrieved any to date. As you state, all of this is confidential, and especially so is this fact: there is more or less jealousy, unfortunately, among meteorite hunters and workers, and it would be a little difficult for me to interfere in this search with Prof. Wininger, since he worked in this region for years and made a special trip in this case. He is not an easy man to get along with in such items. There is some reason in his attitudes, because I have been on the otherside of the fence: if you do a lot of preliminary educational work on a fireball, you don't like for some one else to come in and take the tangible results away from you when they materialize.

Yours sincerely,

Oscar E. Monnig.

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[redacted]

18 March 1948

INTERVIEW WITH MR. OSCAR E. MONNIG
Secretary, National Meteoritical Society

1. On 13 March 1948, while on a navigational training flight to Ft. Worth, Texas, Major Melvin W. Faulk interviewed Mr. Oscar E. Monnig. Mr. Monnig is Secretary of the National Meteoritical Society. He has been actively engaged, as an amateur, in research on and the collection of meteorites since 1930, and hence is regarded as an expert on the subject.

2. Mr. Monnig quoted two other authorities on the subject. Their names and addresses are:

a. Professor H. H. Nininger
P.O. Box 1171
Winslow, Arizona

b. Dr. C. C. Wylie
University of Iowa
Iowa City, Iowa

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3. Major Faulk queried Mr. Monnig specifically on the explosion of a supposed meteorite at 1705 CST, 13 February 1948. It was stated that this phenomenon was definitely that of a meteorite, or daytime fireball. The most conclusive evidence of this is a photograph taken of the dust cloud left by the fireball. This photograph was taken from a point 9 miles north of Norton, Kansas by Duane E. Wray of Norton, Kansas. Mr. Wray has sold the copyright to this photograph to: N.E.A. Service, Inc., 1206 W. Third Street, Cleveland 13, Ohio. Mr. Monnig said during the flight of a meteorite outside the atmosphere of the earth, it is believed that, as a black body, it achieves a temperature of about 4°C. Upon reaching the air layer of the earth, it becomes friction-heated and is subjected to increasing pressure; this causes a release of a trail of gases which usually explode at an altitude of about 20 miles above the earth. After the explosion, a visible dust cloud remains in the atmosphere. The meteorite now usually consists of a cluster of small stones which continue on to strike the earth. Their pattern of impact depends upon the inclination of their flight path with the earth's surface, and varies from slightly oval to an elongated ellipse. If this flight path is observed, the point of impact is calculated, and interested parties, such as Mr. Monnig, make a search for the particles. The particles, when found, usually resemble small stones and are composed chiefly of silicates. There may be a burned shell surrounding the particles, usually about 2 to 10 mm. thick. Weights are ordinarily of the order of a few ounces.

4. Final evidence that the 13 February incident was a fireball will be the discovery of meteorite particles. The discovery will probably be reported by Professor Nininger, since the meteorite is calculated to have fallen in his "territory". It is a matter of ethics among meteoritical enthusiasts that they do not poach on areas already canvassed by another collector. Discovery may occur very soon, or it may be as long as 12 months before any particles are found.

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[redacted]

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5. Mr. Monnig exhibited a series of four photographs taken of a meteorite dust cloud or "train" taken on 20 May 1944 by Cpl. A. L. Asnis, ASN 32790171, c/o Photo Section, PAAF, Pampa, Texas. The present address of the corporal is unknown, but his photographs are copyrighted. Acquisition of these and other photographs of similar nature would be valuable for Project "SIGN" for comparative purposes. Mr. Monnig requested that if the copyright owner of these photographs is located, he be informed so that he may obtain additional copies.

6. Mr. Monnig quoted the book, "The Book of the Damned" by Charles Fort as an interesting collection of unexplained aerial phenomena. He said that the incidents are authentic, but Mr. Fort's conclusions and interpretations are fantastic.

7. Mr. Monnig said that he will keep this office informed of his opinions on any future sightings of aerial phenomena that come to his knowledge.

Melvin W. Faulk

MELVIN W. FAULK
Major, USAF

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INCID # 101

TEXAS OBSERVERS
Amateur Astronomy
1010 Morningside Dr
Ft. Worth 3, Texas

1948 May 16

Commanding General
AMC
Wright-PattersonAF Base
Dayton, Ohio

Attn; Maj M. W. Faulk (MCIA)

Dear Sir:

While there was never any doubt in my mind, I can now report to you finally that there is tangible proof that the fireball of Feb. 18 over northern Kansas was just that, inasmuch as meteorites have been recovered from it.

There were found beginning Apr 24. First several smaller fragments up to oneof 4-1/2 pounds came to light. Then a distrubed spot in a clover field led to the digging up of a piece of some 109 pounds about two feet in the soil.

You can get details from the Norton papers I referred you to before. Altho Prof. H. H. Nininger made the primary initial survey, Dr. L. La Paz came in later and got most of the material recovered to date. You could write either of them for details or confirmation. The stone is what is termed an "achondrite", a technical name for an unusual type of stony meteorite. It is reported to be of a type which will deteriorate rapidly. I have not examined any of it yet.

Incidentally, when we talked together you may recall that I asked you whether you could help me locate a former Cpl. Al Asnis. Trouble yourself no further, as I found him by inquiry thru ordinary channels.

Now I'll ask you another favor. In some possible work in areas containing iron meteorites, I could use a metal detector handily. I have been checking into the matter of what the Army had left and sold as surplus, and find they had a type AN/PRS-1 and a type SCR 625. I believe the Signal Corps handled these as mine detectors. Where could I get technical information on these (instructions, etc.) and where could I find whether some are available? I have located two surplus outfits who sell these, but am wondering if the Army or the War Assets has any more.

Sincerely:

Oscar Monnig

MCIAMC-3/JCB/aw

MCIAMC-3

15 June 1948

Mr. Oscar E. Monnig
Texas Observers
Amateur Astronomy
1010 Morningside Drive
Fort Worth 3, Texas

Dear Mr. Monnig

Reference is made to your letter of 16 May 1948 to Commanding General, Air Materiel Command, attention Major M. W. Faulk. Major Faulk has been transferred; however, the project on which he was working is a continuing one at this Headquarters.

Inclosed are two technical manuals on the AN/PRS-1 and SCR-625 Mine Detectors. No information is available at this Command as to where surplus equipment of this type may be obtained.

It would be appreciated if you would continue to send any information of the type Maj Faulk discussed with you to this Command, attention MCIAMC-3.

Yours very truly

2 Incls:
1. TM 11-1122
2. TM 1151

JAMES C. BEAM
Lt Col, USAF
Project Officer
Technical Intel Div.

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~~RESTRICTED~~

HEADQUARTERS 28TH BOMBARDMENT WING (VH) BCM/ap
Office of the Intelligence Officer
Weaver Air Force Base
Weaver, South Dakota

A-2 350.09 26 February 1948.

SUBJECT: Smoking Object.

TO: Commanding General,
Air Material Command,
Wright Patterson Air Force Base,
Dayton, Ohio.
ATTN: TSDIM.

1. In compliance with paragraph 3, Regulation Number 43-5, Headquarters Strategic Air Command, Andrews Air Force Base 20, D.C., dated 19 February 1948, the following information is submitted for your information and guidance:

a. Smoking Object sighted approximately 1500 hour MST, 18 February 1948, 39° N - 100° W approximately 20,000' by two B-29 Aircrafts of 28th Bombardment Group (VH), assigned this command.

b. Weather at the time: Clear.

c. Names, Occupations, and addresses of Witnesses:

Captain, Howard H. Berodt, AO-49504, 718th Bomb Sq, 28th Bomb Gp (VH). Pilot of 1st B-29.

Captain, Maurice T. Ritenour, AO-48043, 718th Bomb Sq, 28th Bomb Gp (VH). Co-Pilot of 1st B-29.

1st Lt. Leonard P. Mapeless, AO-748714, 77th Bomb Sq, 28th Bomb Gp (VH). Pilot of 2nd B-29.

1st Lt. Carl W. Stucki, AO-785916, 77th Bomb Sq, 28th Bomb Gp (VH). Co-Pilot of 2nd B-29.

d. Photographs of objects, if available: None available.

e. Sketches of object's configuration: None.

f. Object sighted: Smoking Object.

(1) Number: One (1).

(2) Shape: Huge multi-colored ball of fire and a dense cloud of smoke followed.

UNCLASSIFIED

~~RESTRICTED~~

A huge multi-colored ball of fire trailing a dense cloud of smoke was sighted at approx 1500 hours MST 15 Feb 46, 39° N-100° W at approx 20,000 ' by two B-29 aircraft of the 28th Bombardment Group (VH). It was seen some 100 miles southeast of the B-29s. Size was estimated as huge although impossible to determine accurately due to the distance. It was traveling at very high speed and heading southeast of Limon, Colorado, at approx 20,000 ft.

Witnesses: Capt Howard E. Berndt, AO-1697504, 715th Bomb Sq 28th Bomb Gp (VH). Pilot of 1st B-29

Capt Maurice T. Ritenour, AO-1680143, 713th Bomb Sq 28 Bomb Gp (VH). Co-Pilot of 1st B-29.

1st Lt Leonard P. Harshman, AO-[illegible], 717th Bomb Sq., 28th Bomb Gp (VH). Pilot of 2nd B-29

1st Lt. Carl V. Stuckel, AO-[illegible], 717th Bomb Sq. 28th Bomb Gp (VH). Co-Pilot of 2nd B-29.

NOTE: See Incident 101 - Kornaker Lennon.

UNCLASSIFIED [REDACTED]

Ltr, File A-2 350.09, Hq 28th Bomb Wing (VH), Weaver Air Force Base, Weaver, South Dakota, dated 26 February 1948, Cont'd.

f. (Continued).

(3) Size: Huge Size, seen 100 miles southeast of the B-29s. At this distance was impossible to accurately figure the size.

(4) Color: Multi-colored ball of fire and a dense cloud of smoke.

(5) Speed: Very high speed.

(6) Heading: Southeast of Limon, Colorado.

(7) Maneuverability: Explosion rate.

(8) Altitude: Approximately 20,000'.

(9) Sound: Could not be observed, because personnel were in B-29s Aircraft at approximately 10,000' at the time.

(10) Exhaust trail or not: A vapor trail with a ball of fire at the head of trail.

FOR THE COMMANDING OFFICER:

BENJAMIN C. MARSHALL,
Captain, USAF,
Intelligence Officer.

UNCLASSIFIED [REDACTED]

HqAMC Form No. 10-514 (Rev 10 Sep 46)

WF-L-2 SEP 47 250M

IN REPLY ADDRESS BOTH COMMUNICATION AND ENVELOPE TO COMMANDING GENERAL, AIR MATERIEL COMMAND, ATTENTION FOLLOWING OFFICE SYMBOL:

MCIA

HEADQUARTERS
AIR MATERIEL COMMAND

MCIA/JCB/smb

WRIGHT FIELD, DAYTON, OHIO

MAR 22 1948

SUBJECT: Request for Address [redacted]

TO: The Adjutant General
Washington 25, D. C.

It is requested the present address of CORPORAL [redacted] ASN 32790171, be furnished this office. The last known address of [redacted] was PAAF, Pampa, Texas.

FOR THE COMMANDING GENERAL:

James J. Hanrahan
H. M. McCOY
Colonel, USAF
Chief of Intelligence

AGRS-DF 1st Ind

AGO, Department of the Army, Records Administration Center, St. Louis 20, Missouri, 2 April 1948.

TO: Commanding General, Air Materiel Command, Wright Field, Dayton, Ohio.

The records show that Asnis, Alexander, 32 790 171, furnished as his address for future reference at time of discharge 10 January 1946: [redacted], New York.

FOR THE ADJUTANT GENERAL:

John P. Kaplan
Adjutant General

MCIA/JCB/amb
Wright-Patterson Air Force Base
xxxxxxx
15 April 1948

MCIA

Request regarding copyright of pictures

[redacted], N. Y.

Dear Mr. [redacted].

This Command is currently engaged in an intelligence study involving the identification of meteors and meteorites. Mr. Oscar E. Monnig, Secretary of the National Meteoritical Society, Fort Worth, Texas, has advised that you have taken a striking series of pictures of meteorite trails and that you might possibly be able to furnish this Headquarters with a set of these photographs.

If this is not possible, please inform this office as to the name and address of the company holding the copyrights on these pictures.

Sincerely yours,

W. R. CLINGERMAN
Colonel, USAF
Chief, Tech Intelligence Div
Intelligence Department

Photograph forwarded

[redacted] New York
1 May 1948

Commanding General,
Air Materiel Command, Att; MCIA
Wright-Patterson Air Force Base
Dayton, Ohio.

Gentlemen;

I am in receipt of a letter from Colonel W. R. Clingerman, Chief, Tech. Intelligence Div., requesting photographs of meteorite trails.

Enclosed is a series of four photos taken in the vicinity of Pampa, Texas, of a meteorite trail on 20 May 1944. These photos were made from 40 to 50 seconds after the meteor's flight at about 15 second intervals. The time interval was checked by actual rehearsal.

I hope these photos will be of help to you in your research.

Sincerely yours,

[redacted]

101

15

MCIAXD/JCB/amb
Wright-Patterson Air Force Base
xxxxxxx
11 May 1948

MCIAXD

Release-Ledgement - receipt of photos

[redacted]
New York

Dear Mr [redacted]

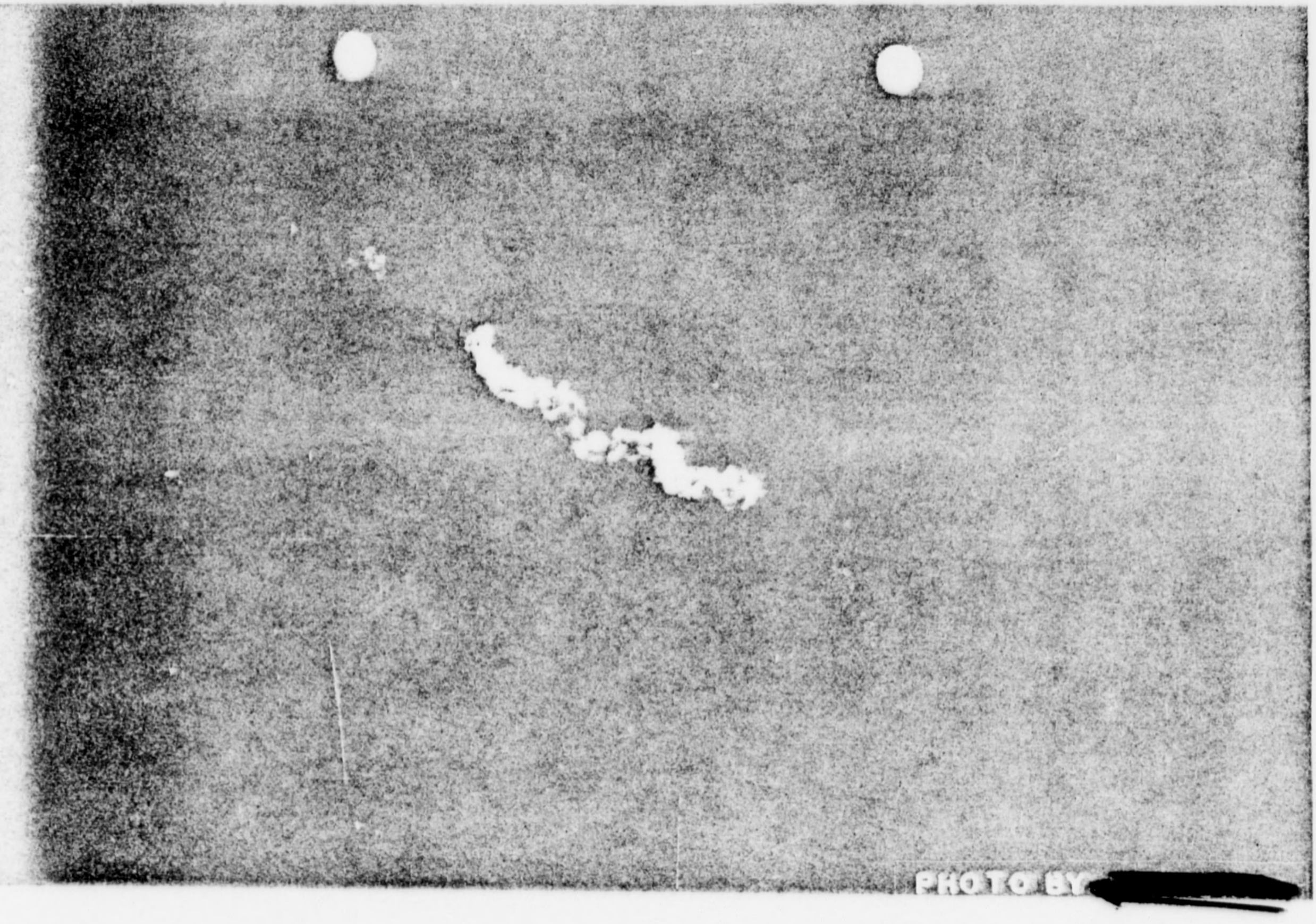
Receipt is acknowledged of your series of four photographs of meteorite trails taken near Pampa, Texas. This Headquarters appreciates your cooperation in furnishing these striking photographs.

Sincerely yours,

W. R. CLINGERMAN
Colonel, USAF
Chief, Tech Intelligence Div
Intelligence Department

3 ONLY 5 x 7
GLOSSY PHOTOS
OF THE METEOR TRAIL
FROM THE
NORTON, KANSAS
SIGHTING OF
18 FEB 1948

UNCLASSIFIED


PHOTO BY

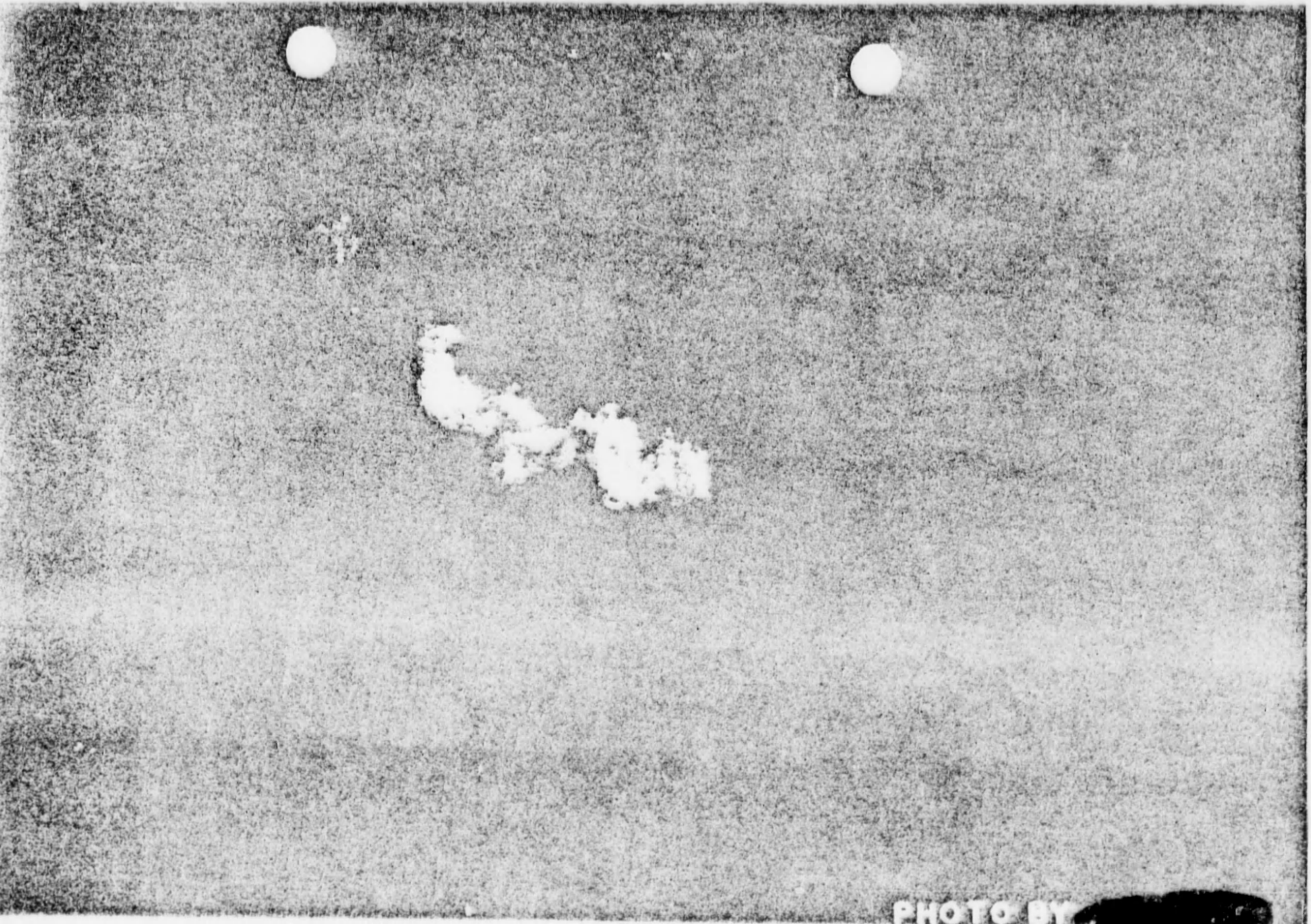

PHOTO BY


PHOTO BY

CHECK-LIST - UNIDENTIFIED FLYING OBJECTS

Incident # 102

1. Date 18 February 1948

2. Time 1500 MST

3. Location [redacted] Air Near Green River, Utah

4. Name of observer [redacted] (B-29 Pilot, Lt. 28 Bomber Gp)

5. Occupation of observor Pilot [redacted] Lt., Co-Pilot, (see reverse side for other witnesses)

6. Address of observor 77th Bomb Sq, 28th Bomb Gp (VH), Weaver AFB, S.D.

7. Place of observation 39° N - 100° W, near Green River, Utah

8. Number of objects One

9. Distance of object from observor 100 miles

10. Time in sight N/S

11. Altitude 20,000 feet

12. Speed Very high

13. Direction of flight Southeast of Limon, Colorado

14. Tactics Explosion rate

15. Sound Could not be determined due to B-29 engine noise

16. Size Huge

17. Color Multi-colored ball of fire

18. Shape Huge multi-colored ball of fire and dense cloud of smoke

19. Odor detected N/S

20. Apparent construction N/S

21. Exhaust trails Vapor trail with ball of fire at head of trail

22. Weather conditions Clear

23. Effect on clouds N/S

24. Sketches or photographs None

25. Manner of disappearance N/S

26. Remarks: [redacted]