

PROJECT 10073 RECORD CARD

1. DATE 6 March, 1951		2. LOCATION Albuquerque, New Mexico		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☒ Was Astronomical Meteor ☐ Probably Astronomical ☐ Possibly Astronomical ☐ Other _____ ☐ Insufficient Data for Evaluation ☐ Unknown	
3. DATE-TIME GROUP Local 1434 GMT 06/2134Z		4. TYPE OF OBSERVATION ☐ EX Ground-Visual ☐ Ground-Radar ☐ Air-Visual ☐ Air-Intercept Radar			
5. PHOTOS ☐ Yes ☒ No		6. SOURCE Civilian			
7. LENGTH OF OBSERVATION Not Reported		8. NUMBER OF OBJECTS one		9. COURSE Not Reported	
10. BRIEF SUMMARY OF SIGHTING Reports gathered by Dr. [REDACTED] on this object with purpose of attempted recovery of portions assumed to have possibly landed.				11. COMMENTS Report of meteor, not UFO.	
				RETURN TO: Director Aerospace Studies Inst ATTN: Archives Branch Maxwell AFB, Alabama K243.6012-1 Mar-Jul 1951	

C
O
P
Y

UNCLASSIFIED

~~CONFIDENTIAL~~

UNCLASSIFIED

PROJECT TWINKLE

FINAL REPORT

L. ELTERMAN

27 November 1951

APPROVED:

P. H. WYCKOFF
Chief, Atmospheric Physics Laboratory

SMAC

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

UNCLASSIFIED

~~CONFIDENTIAL~~

6 Mar. 1951 - Report from four Los Alamos personnel of very bright object crossing sky. Also observed by two Kirtland AFB pilots who reported this as a meteor; time - 14:30; reported by Dr. La Paz to be a detomating fire-ball. No fragments recovered.

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

UNCLASSIFIED

~~CONFIDENTIAL~~

R7C

1003327

7-3712-35

~~SECRET~~
UNCLASSIFIED

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON

34
THE INSPECTOR GENERAL, USAF
5TH DISTRICT OFFICE OF SPECIAL INVESTIGATIONS
WRIGHT-PATTERSON AIR FORCE BASE, DAYTON, OHIO

IN REPLY REFER TO: 5D 24-0

26 March 1951

SUBJECT: Anomalous Luminous Phenomena
The Fireball of 1951, March 6, 14:34

TO: Commanding General
Air Materiel 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.

2 Incls

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

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

Copy to:

Hq OSI w/o abv incls

file 5131
not carded
DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

UNCLASSIFIED

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 1951

SPOT INTELLIGENCE REPORT

SUBJECT: Anomalous luminous phenomena
The fireball of 1951, March 6, 14:34

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

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

1. SYNOPSIS: An anomalous luminous phenomena occurred 6 March 1951 at approximately 14:34 hours. The reports of this phenomena were gathered by Dr. LINCOLN LAPAZ, and a search was made to determine whether or not there were resultant physical evidence of a meteorite. The physical 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 Tafoya, New Mexico. Search continues by LAPAZ.

2. DETAILS: Dr. LINCOLN LAPAZ, Director, Institute of Meteoritics, University of New Mexico, Albuquerque, New Mexico, gathered all available sighting data of the phenomena and has attempted to recover any physical residuary evidence as more particularly delineated in a report of Dr. LAPAZ:

"The March 6 fireball is the last in the long series of incidents occurring in northeastern New Mexico and the closely adjacent portions of Texas and Colorado. Of this series, only three fireballs produced any acoustic phenomena and, therefore, were initially regarded as almost certainly detonating meteorite falls. The first of this trio was the fireball of January 30, 1949 in the Amarillo-Lubbock region, which was the subject of intensive study by the O.S.I. and the Institute of Meteoritics and other interested agencies. In spite of the fact that the area of fall was speedily and accurately located and that this area was not only searched for several weeks immediately after the fall, but also has been repeatedly

UNCLASSIFIED

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS
DOD DIR 5200.10


UNCLASSIFIED

File 24-0

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 Campo, 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 18 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 comment here. Transit 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 Campo fireball falls, namely, that the O.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 sort obtained for us in the Four Corners region under the direction of Colonel James G. Tison, Hq. 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 8 and 5 miles, respectively, the major axis extending from (about) Lat. $36^{\circ} 24'$, Long. $104^{\circ} 10'$ to Lat. $36^{\circ} 31'$, Long. $104^{\circ} 6'$, see Trinidad (S-4) Sec. Aero. Chart), it is strongly recommended that sufficient air force personnel be assigned to ground search to insure exhaustive search of all areas in which meteoritic impact appears to have occurred.

"In making these recommendations, I am chiefly influenced by the possibility that the fireballs in question may not be meteoritic in nature. However, in the event that my first judgment is confirmed by recovery of

UNCLASSIFIED 2

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10



~~CONFIDENTIAL~~
UNCLASSIFIED

File 24-0

Subj Anomalous luminous phenomena

21 Mar 51

"meteorites when more exhaustive 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 AFCSI 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
(S-4)

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

cc: AMC (dup) w/incl
AFSWC

3
~~CONFIDENTIAL~~
UNCLASSIFIED

DOWNGRADED AT 3 YEAR INTERVALS
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~
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: 24-0

22 March 1951

SUBJECT: Anomalous Luminous Phenomena
Fireball of 1951, March 6, 14:34

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. LINCOLN LAPAZ 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 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 LAPAZ's statement, attached report; this office has informed Dr. LAPAZ that the 17th District OSI 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 on the attached map.

1 Incl
Spot Intel Rpt, 21Mar51,
w/1 Incl thereto

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

cc: AMC

DOWNGRADED AT 3 YEAR INTERVALS;
DECLASSIFIED AFTER 12 YEARS.
DOD DIR 5200.10

~~CONFIDENTIAL~~

UNCLASSIFIED

PILOTS GUIDE FOR COMMUNICATING WITH AIRWAY STATIONS

PILOTS - never hesitate to use your radio. Remember that talking by radio is almost the same as talking on your home telephone.

The following are typical examples of two-way communication with airway stations.

IDENTIFICATION OF AIRWAY STATIONS: CAA Airway Communications Stations are identified by the name of the station followed by the word "RADIO".

Example: "CLEVELAND RADIO".

IDENTIFICATION OF AIRCRAFT: Your aircraft is identified by the make of aircraft followed by the certificate number and letter suffix, if any.

Example: "STINSON ONE THREE SIX FIVE".
"STINSON ONE THREE SIX FIVE-Y".

Example of pilot calling an airway station:

"CLEVELAND RADIO - THIS IS - STINSON ONE THREE SIX FIVE - OVER".

After communication has been established, an abbreviated form of identification may be used, if desired, using the last three units of the certificate number only.

The airway station will normally answer on the radio range or radiobeacon frequency. If reply is desired on other than the radio range or radiobeacon frequency, pilots should indicate the frequency on which the station reply is expected.

Example: "CLEVELAND RADIO - THIS IS - STINSON ONE THREE SIX FIVE - REPLY ON ONE ELEVEN POINT ONE MEGACYCLES - OVER".

After the airway station has answered your call, proceed with your message without further call up other than preceding the message with the aircraft identification. Your message may consist of your position report, a request for weather data or other information that may be required to assist you to your destination.

Example: "STINSON ONE THREE SIX FIVE - OVER CLEVELAND AT ELEVEN TWENTY - FOUR THOUSAND FEET ON VFR FLIGHT PLAN FROM YOUNGSTOWN TO TOLEDO - WHAT IS THE WEATHER AT TOLEDO - OVER".

If you are flying VFR, a position report is not required, however, it is to your advantage that the stations along your route of flight know your position at all times in order that assistance can be rendered should you encounter difficulty.

Flight plans may be filed while in flight, with a CAA Airway Communications Station, if your departure was from an airport not served by such a station.

The word "ROGER" is used to acknowledge receipt of a message.

The word "OUT" is used when a conversation is ended and no response is expected.

Example: "STINSON ONE THREE SIX FIVE - ROGER, OUT".

The words "SAY AGAIN" are used if a message was not understood and a repetition is desired.

The words "STAND BY" are used to indicate that a return call will be made as soon as practicable.

Examples: "STINSON ONE THREE SIX FIVE - SAY AGAIN, OVER".
"STINSON ONE THREE SIX FIVE - STAND BY".

ENROUTE FLIGHT SERVICE

All airway communications stations are ready to provide pilots with enroute flight information or assistance at any time. You may call any CAA RADIO for latest weather along your route of flight, upper wind velocities, airport conditions, and other flight information. If you become lost or uncertain of your position, call any CAA RADIO. Personnel at CAA airway communications stations are trained to assist pilots in establishing position by any of the following methods: (a) Visual reference to terrain features; (b) Low frequency radio range orientation; (c) VHF omni-range indications (triangulations).

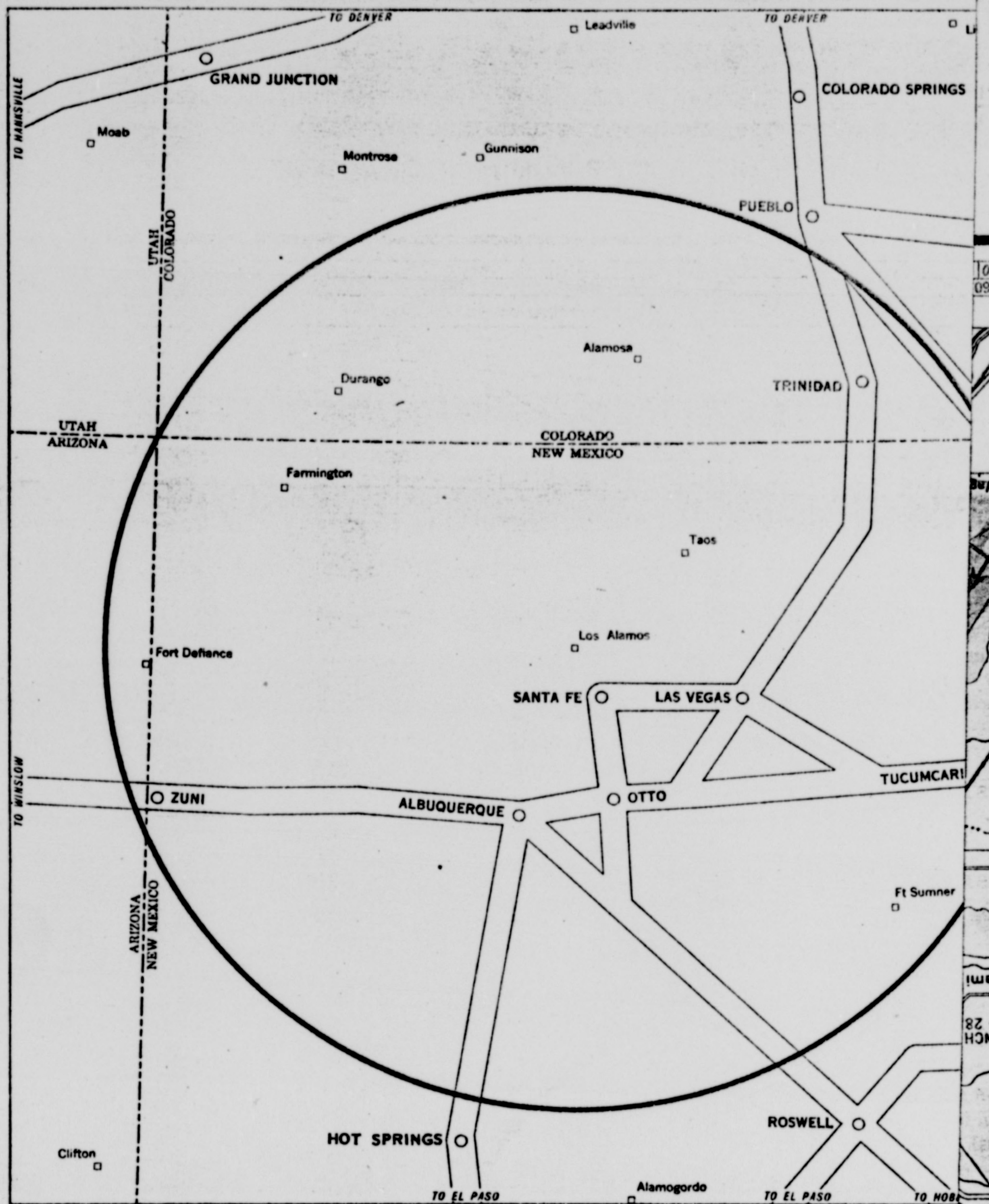
RADIOTELEGRAPH CODE

A-ABLE ..
B-BAKER
C-CHARLIE ..
D-DOG ...
E-EASY .
F-FOX ...
G-GEORGE ...
H-HOW
I-ITEM ..
J-JIG .
K-KING ...
L-LOVE ...
M-MIKE ..

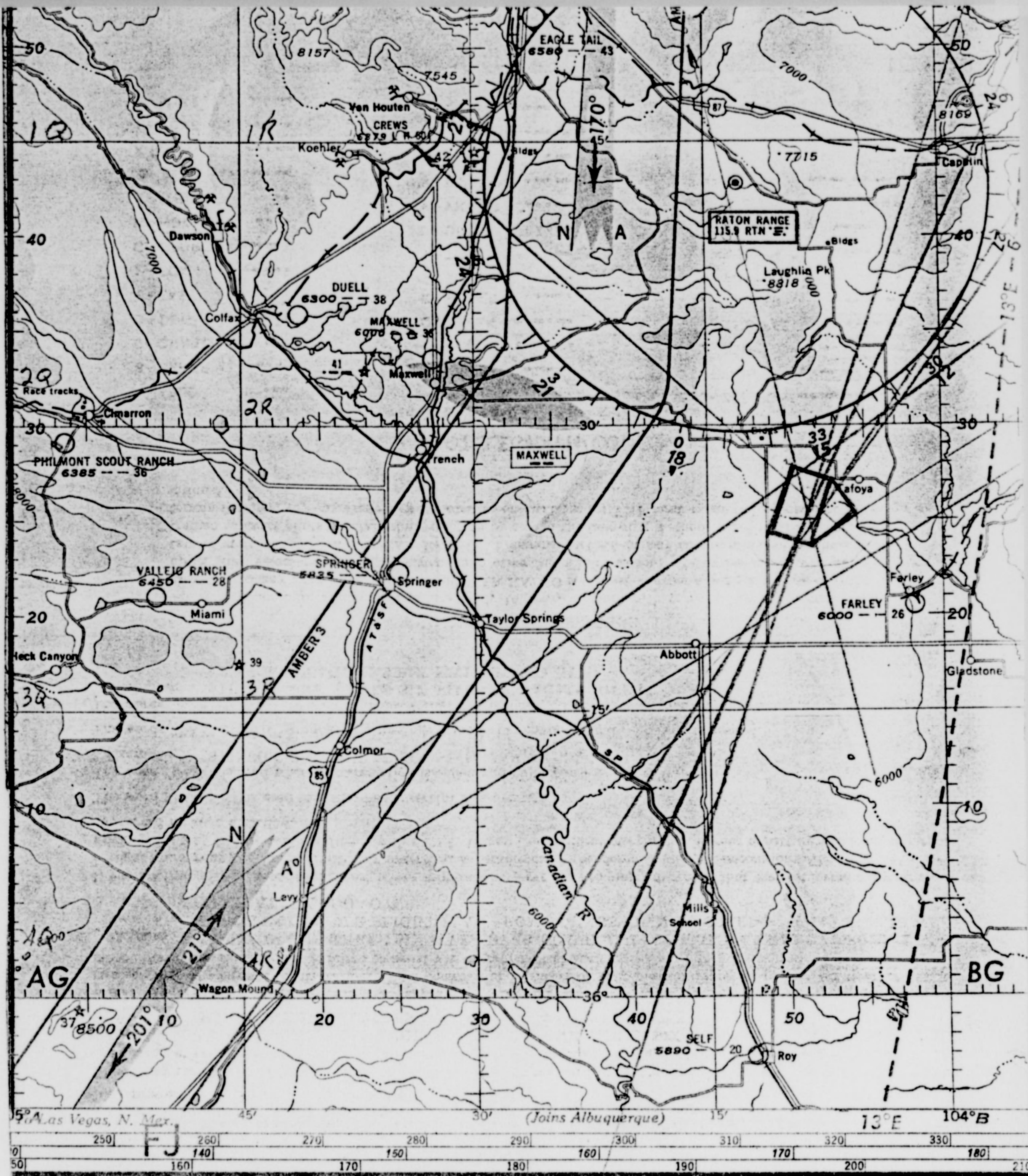
N-NAN ..
O-OBOE ...
P-PETER ...
Q-QUEEN ...
R-ROGER ...
S-SUGAR ...
T-TARE —
U-UNCLE ...
V-VICTOR ...
W-WILLIAM ...
X-XRAY ...
Y-YOKE ...
Z-ZEBRA ...

0-ZEE-ROH
1-WUN
2-TOO
3-THU-REE
4-FO-WER
5-FI-YIV
6-SIKS
7-SEV-VEN
8-ATE
9-NI-YEN

ALBUQUERQUE AIR DEFENSE AREA (LOS ALAMOS)



Effective Date March 15, 1950. In the interest of safety, all airmen proposing to fly within 150 nautical miles) of Los Alamos, New Mexico at an altitude greater than 10,000 feet MSL or more than 4,000 feet terrain, whichever is higher, are encouraged to file flight plans, preferably IFR, with the appropriate C to do so may result in in-flight identification by fighter aircraft. THE EXISTING PROHIBITED MEDIANE VICINITY OF LOS ALAMOS REMAINS OUT OF BOUNDS FOR ALL AIR TRAFFIC



VERY HIGH FREQUENCIES (VHF) PRINTED IN BLUE
For pilot information see reverse side

A-ABLE
B-BAKER
C-CHARLIE
D-DOG
E-EASY
F-FOX
G-GEORGE
H-HOW
I-ITEM
J-JIG
K-KING
L-LOVE
M-MIKE

