

PROJECT 10073 RECORD CARD

1. DATE 16 July 1963	2. LOCATION 35.38N 176.23W (pacific)		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon
3. DATE-TIME GROUP Local _____ GMT <u>17/0803Z</u>	4. TYPE OF OBSERVATION ☐ Ground-Visual ☐ Ground-Radar ☒ Air-Visual ☐ Air-Intercept Radar		☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft
5. PHOTOS ☐ Yes ☒ No	6. SOURCE military		☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical
7. LENGTH OF OBSERVATION 8 minutes	8. NUMBER OF OBJECTS one	9. COURSE SSE	☒ Other Satellite ECHO I ☐ Insufficient Data for Evaluation ☐ Unknown
10. BRIEF SUMMARY OF SIGHTING Bright light same as first mag star moving initially to west then to SE. Observed at 45 deg elevation. Faded at horizon after 8 min observation		11. COMMENTS On 17 July ECHO crossed the equator heading NE at 0724 at 345 deg W. at 0750 it would be at it's orbital peak 262 deg. It would reach 35 deg North Latitude at 0802Z at 145 deg East Longitude. This places the Satellite in the position of the object under observation. Case evaluated as ECHO I.	

17/0808Z

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

I N C O M I N G

D

AF IN : 41373 (17 Jul 63) C/jmh Pg 1 of 2

0 SMB A136

INFO : NIN-9, XOP-1, XOPX-4, SAF-OS-3,
ARMY-2, NAVY-2, CMC-8, JCS-35,
OSD-15, NSA-7, DIA-25, DIA/CIIC-3
(115)

ZCZCHQA934ZCECB157

YY RUEAHQ

DE R U H P F B 0 2 6

ZNR

Y 170913Z

FM COMBARPAC

TO RUHPHH/C OMHAWSEAFRON

R UHL KM/C INCPACAF

RUAUAHV HADD KUNIA

ZEN/ CINC NORAD

INFO RUECW/CNO

RUEAHQ/C OFS USAF

RUHPA/C INCPAC

RUHPB/C INCPACFLT0

R UHAFS/C INCUSARPAC

RJHLM P/PACAFBASECOM HICKMAN

RUECW/SECNAV

NAVY GRNC

$$\begin{array}{r} 345 \\ 83 \\ \hline 262 \end{array}$$

$$\begin{array}{r} 6724 \\ 26 \\ \hline 0750 \end{array}$$

$$\begin{array}{r} 345 \\ 130 \\ \hline 215 \end{array}$$

$$\begin{array}{r} 180 \\ 35 \\ \hline 145 \end{array}$$

$$\begin{array}{r} 180 \\ 16 \\ \hline 164 \end{array}$$

$$\begin{array}{r} 345.29 \\ -130 \\ \hline 215 \\ 180 \\ \hline 145.29 \end{array}$$

07.24 345.29
 +44 -149
 SE 20° N 196°

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INCOMING

AF IN : 41373 (17 Jul 63)

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BT

UNCLAS

A. JANAP 146D

1. CIRVIS REPORT

2. V43224

3. BRIGHT LIGHT SAME SIZE AS FIRST MAGNITUDE STAR

4. 35 38N 176 23W

5. 170808Z

6. ALTITUDE 45 DEG ABOVE HORIZON

7. SSE

8. OBJECT SIGHTED INITIAL TO THE WESX...RISERVED TRAVELING ON
SSE COURSE UNTIL FADED JUST ABOVE HORIZON AT TIME 0816Z0

9. EVALUATION UNKNOWN

BT

NOTE: Adv cy to XOPX, NIN, DIA

17/0913Z

DEPARTMENT OF THE AIR FORCE

STAFF MESSAGE BRANCH
CLASSIFIED MESSAGE

AF IN : 41403 (17 Jul 63) X/

Pg 1 of 2

INFO : NIN-9, XOP-1, XOPK-4, CSAF-10S-3, ARMY-2, CMC-8, JCS-35, OSD-15,
NSA-7, DIA-25, DIA-CIIC-3 (103)

SMB A146

CZCHQA941ZCQJA116

00 RUEAHQ

DE RUHLKH 5

ZNR

O 170952ZFM 3

FM 326 AIR DIV KUNIA FACILITY HAWAII

TO RUHLKM/PACAF HICKAM AFB HAWAII

RUHPHH/COMHAWSEAFRON PEARL HARBOR HAWAII

INFO RUEAHQ/CSAF USAF WASH DC

RUECW/CNO WASH DC

RUECW/SECNAV WASH DC

RUWGALB/C INCNORAD ENT AFB COLO

RUHPA/CINCPAC CAMP H M SMITH HAWAII

RUHAFS/C INCUSARPAC FT SHAFTER HAWAII

RUHPB/CINCPACFLT PEARL HARBOR HAWUI

RUAUAZ/COMUSJAPAN FUCHU AS JAPAN

RUAMC/COMUSKOREA SEOUL KOREA

RUAGFL/COMUSTDC TAIPEI TAIWAN

RUCSBRB/CINCSAC OFFUTT AFB NEBR

RUHPD/COMASWFORPAC FORD ISLAND HAWAII

AF GRNC

BT

NCLAS HADOC-D 1263

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

NNNN

I N C O M I N G

AF IN : 41403 (17 Jul63)

Pg 2 of 2

A. JANAP 146D

1. CIRVIS REPORT
2. V43224
3. BRIGHT LIGHT SAME ~~SIZE~~ AS FIRST MAGNITUDE STAR
4. 35 38N 176 23W
5. 17/0808Z
6. ALTITUDE 45 DEGREES ABOVE ORIZON
7. SSE
8. OBJECT SIGHTED INITIALLY TO THE WEST. OBSERVED
TRAVELING ON SSE COURSE UNTIL FADED JUST ABOVE
HORIZON AT TIME 0816Z
9. EVALUATION NONE AT THIS TIME

B

17/0958Z JUL RUHLKH

NOTE: Xmitted to CIA SMB #431

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EQUATOR S-N			SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES							
TIME (UT)	LONG. (W)	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)
JULY 18, 1963										
C 40.0	247.22	47.5	26.6	-83.24	673	90.0	26.6	-83.28	673	90.0
2 35.0	278.32	45.0	21.9	-61.00	669	72.2	31.4	-105.52	694	107.8
4 30.1	305.42	40.0	18.2	-45.74	678	60.7	35.2	-120.77	722	119.3
6 25.1	334.53	35.0	15.4	-36.08	691	54.0	38.1	-130.41	740	126.0
8 20.2	3.63	30.0	12.9	-28.71	707	49.4	40.6	-137.75	775	130.6
10 15.2	32.73	20.0	8.5	-17.37	747	43.7	45.2	-145.06	830	136.3
12 10.2	61.84	0.	0.	0.	847	39.9	53.9	-166.35	944	140.2
14 5.3	90.94	-20.0	-8.9	17.26	966	43.6	-52.0	147.34	1057	136.4
16 0.3	120.04	-30.0	-13.8	28.48	1029	49.3	-46.9	136.17	1107	130.7
17 59.4	149.14	-35.0	-16.7	35.75	1061	53.9	-43.9	128.92	1120	126.2
19 50.4	178.25	-40.0	-20.0	45.20	1094	60.6	-40.6	119.41	1147	119.4
21 45.4	207.35	-45.0	-24.4	60.35	1129	72.1	-36.0	104.36	1160	107.9
23 40.5	236.45	-47.5	-30.2	82.34	1156	90.0	-30.2	82.38	1156	90.0

JULY 19, 1963

1	35.5	265.55	47.5	26.7	-83.22	670	90.0	26.7	-83.26	670	90.0
3	30.5	294.66	45.0	22.0	-60.98	671	72.2	31.5	-105.50	687	107.0
5	25.6	323.76	40.0	18.2	-45.71	683	60.7	35.3	-120.75	712	119.3
7	20.6	352.86	35.0	15.4	-36.06	699	54.0	38.1	-130.39	736	126.0
9	15.7	21.76	30.0	13.0	-28.70	717	49.4	40.6	-137.74	761	130.6
11	10.7	51.06	20.0	8.5	-17.35	760	43.7	45.2	-145.06	814	136.3
13	5.7	80.17	0.	0.	0.	863	39.9	53.9	-166.37	927	140.6
15	0.8	109.27	-20.0	-8.9	17.25	982	43.6	-52.1	147.31	1043	136.4
16	55.8	133.27	-30.0	-13.2	28.45	1044	49.3	-47.0	136.13	1095	130.7
18	50.6	167.47	-30.0	-16.0	35.72	1075	53.9	-44.1	120.68	1119	126.2
20	45.9	196.57	-40.0	-20.1	45.25	1105	60.6	-40.7	119.37	1140	119.4
22	40.9	225.68	-45.0	-24.6	60.32	1137	72.1	-36.2	104.31	1158	107.9
			-47.5	-30.4	82.36	1159	90.0	-30.4	82.34	1159	90.0

JULY 20, 1963

C 36.0	254.76	47.5	26.8	-83.19	669	90.0	26.8	-83.24	669	90.0
2 31.0	283.88	44.0	22.1	-80.99	673	72.2	31.6	-105.57	681	117.1
4 26.0	312.98	40.0	18.3	-45.69	689	60.7	35.3	-120.73	703	113.1
6 21.1	342.08	35.0	15.5	-36.04	707	54.0	38.2	-130.37	725	126.0
8 16.1	11.18	30.0	13.1	-28.68	727	49.4	40.7	-137.73	749	110.6
10 11.1	40.29	20.0	8.6	-17.34	772	43.7	45.2	-145.05	799	118.3
12 6.2	69.39	0.	0.	0.	879	39.9*	53.9	-166.37	911	140.1
14 1.2	98.45	-20.0	-9.0	17.23	998	43.6*	-52.2	147.29	1029	136.4
15 56.2	127.59	-30.0	-14.0	28.43	1057	49.3*	-47.1	136.11	1084	130.7
17 51.3	156.69	-35.0	-16.9	35.69	1087	53.9*	-44.2	128.85	1110	126.1
19 46.3	185.79	-40.0	-20.2	45.72	1115	60.6*	-40.8	119.34	1133	117.4
21 41.3	214.89	-45.0	-24.7	60.28	1144	72.1	-36.3	104.28	1154	107.9
23 36.4	244.00	-47.5	-30.5	82.26	1161	90.0	-30.5	82.31	1161	90.0

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 101A 1

REFERENCE TIME 1963 Y 7 M 6 D 1 H 11.12 M UT
INCLINATION 47.28 DEG.
ASCENDING NODE (LONG.) 203.62 DEG. WEST
PRIME SWEET INTERVAL ONE DAY -16.95 MIN.
ARGUMENT OF PERIGEE 32.13 DEG.
RATE OF CHANGE 0.30725 DEG. PER PERIOD
ANALYSTIC PERIOD 115-158 MIN.
RATE OF CHANGE -0.00014 MIN. PER PERIOD
ECCENTRICITY 0.05011
RADIUS OF PERIGEE 4627.5 MILES
RADIUS OF APOGEE 5119.7 MILES
RATE OF CHANGE -0.10 MILES PER DAY
ASCENDING NODE (R.A.) 91.29 DEG.
RATE OF CHANGE -3.30358 DEG. PER DAY
LATITUDE OF PERIGEE 23.00 DEC.
READ-IN EXPECTED