

PROJECT 10073 RECORD CARD

1. DATE 1 Sep 63		2. LOCATION 43.20N 173.50W(pacific)		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☒ Other Satellite ECHO I ☐ Insufficient Data for Evaluation ☐ Unknown	
3. DATE-TIME GROUP Local _____ GMT 01/1515Z		4. TYPE OF OBSERVATION ☐ Ground-Visual ☐ Ground-Radar ☒ Air-Visual ☐ Air-Intercept Radar			
5. PHOTOS ☐ Yes ☒ No		6. SOURCE military			
7. LENGTH OF OBSERVATION 15 min		8. NUMBER OF OBJECTS one		9. COURSE East	
10. BRIEF SUMMARY OF SIGHTING UFO sighted from 1515Z to 1530Z. Unknown altitude, Eastbound at high rate of speed.				11. COMMENTS at 1427 ECHO crossed equator at 290.0 At 1458 it started South at 208 deg. at 1515 ECHO was heading SE at 155 deg W and 30 deg N. This places the Satellite in the general area and it would be visible. Case evaluated as ECHO I.	

NNNN

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

AF IN : 42268 (1 Sep 63) L/crp

INCOMING

Pg 1 of 2

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-2 (119)

SMB C044

ZCHQA574ZCECD078

OO RUEAHQ

DE RUHPF B048 01/1616Z

ZNR

O 011615Z

FM COMBARPAC

ITG RUKACR/COMALSEAFRON

RUKDAG/COMALAIRCOM

RUHLKM/CINCPACAF

ZEN/CINCNORAD

INFO RUECW/CNO

RUEAHQ/COFS USAF

RUHPA/CINCPAC

RUHPB/CINCPACFLT

RUHAFS/CINCUSARPAC

RUHLKMP. PACAFBASECOM HRKAM

RUECW/SECNAV

RUHPHH/COMHAWSEAFRON

1427

~~48~~

30°N SE →

290.03

~~- 135~~

155°W

✓

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

AF IN : 42268 (1 Sep 63) **INCOMING**

Pg 2 of 2

RUAUAAR/HADD KUNIA

BT

UNCLAS

A. JANAP 146D

1. CIRVIS REPORT

2. NAVY 143200

3. UFO. SIGHTING FROM 1515 TO 1530Z

4. 43-20N 173-50W

5. 011515Z

6. UNKNOWN

7. EASTBOUND

8. HIGH RATE

BT

NOTE: Adv copy to KOPX, NIN and DIA-CIIC.
Xmitted to CIA

SMITHSONIAN ASTRONOMICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS

AUGUST 28, 1963

SATELLITE 1960 TOTA 1, NCMO 1

These predictions are based on orbital elements revised on August 26, 1963
 T_0 = August 27.0, times are in days, U.T.
 Argument of perigee = $232^\circ 51' + 3^\circ 770 (t - T_0)$
 Right ascension of ascending node = $205^\circ 37' - 3^\circ 3180 (t - T_0)$

Inclination = $67^\circ 27' 42''$
 Eccentricity = $0.06495 + 1.55 \times 10^{-4} (t - T_0)$
 Semi-major axis = 7.831413 megameters
 Mean anomaly (deg.) = $0.08851 + 12.525782 (t - T_0) + 3.308 \times 10^{-4} (t - T_0)^2$

SATELLITE 1960 TOTA 1 FOR OTHER LATITUDES										SATELLITE 1960 TOTA 1 FOR OTHER LATITUDES																			
EQUATOR S-N		LAT.	SOUTH-NORTH		NORTH-SOUTH		BEAR.	EQUATOR S-N		LAT.	SOUTH-NORTH		NORTH-SOUTH		BEAR.														
TIME (UT)	LONG. (W)		TIME CORR.	LONG. CORR.	HT. (MI)	TIME CORR.		LONG. CORR.	HT. (MI)		TIME CORR.	LONG. CORR.	HT. (MI)	TIME CORR.		LONG. CORR.	HT. (MI)												
AUGUST 31, 1963															SEPTEMBER 4, 1963														
0 11.1	89.00	47.5	31.7	-81.95	1183	90.0°		31.7	-81.99	1182	90.0°		31.3	-82.07	1208	90.0°		31.3	-82.07	1208	90.0°								
1 11.1	89.05	45.0	29.9	-80.01	1205	72.1°		37.5	-103.95	1134	107.8°		37.2	-104.05	1184	107.9°		37.2	-104.05	1184	107.9°								
2 11.1	89.10	40.0	21.2	-44.97	1209	60.5°		42.0	-119.03	1081	119.4°		41.8	-119.10	1144	119.4°		41.8	-119.10	1144	119.4°								
3 11.1	89.15	35.0	17.7	-35.43	1191	53.8°		45.3	-128.57	1036	126.1°		45.1	-128.64	1106	126.1°		45.1	-128.64	1106	126.1°								
4 11.1	89.21	30.0	14.2	-28.25	1172	49.2°		48.1	-135.85	993	130.7°		48.0	-135.97	1069	130.7°		48.0	-135.97	1069	130.7°								
5 11.1	89.26	20.0	9.5	-17.11	1124	43.5°		53.0	-147.08	913	136.4°		53.1	-147.10	1031	136.4°		53.1	-147.10	1031	136.4°								
6 11.1	89.31	0.0	0.0	0.0	1000	39.8°		61.6	-164.41	774	140.1°		62.0	-164.41	774	140.1°		62.0	-164.41	774	140.1°								
7 11.1	89.36	-20.0	-4.9	17.24	859	33.7°		-45.2	-149.07	668	132.7°		-44.6	-149.07	668	132.7°		-44.6	-149.07	668	132.7°								
8 11.1	89.41	-30.0	-13.6	28.54	787	29.4°		-40.8	-137.68	632	130.5°		-40.2	-137.68	632	130.5°		-40.2	-137.68	632	130.5°								
9 11.1	89.46	-35.0	-18.1	35.89	750	24.0°		-38.5	-130.30	619	126.0°		-37.8	-130.30	619	126.0°		-37.8	-130.30	619	126.0°								
10 11.1	89.51	-40.0	-19.0	45.53	712	20.7°		-35.7	-120.67	611	119.3°		-35.0	-120.67	611	119.3°		-35.0	-120.67	611	119.3°								
11 11.1	89.56	-45.0	-22.8	60.79	670	12.2°		-32.1	-105.33	617	107.8°		-31.5	-105.33	617	107.8°		-31.5	-105.33	617	107.8°								
12 11.1	89.61	-47.5	-27.4	83.04	631	90.0°		-27.5	-81.08	631	90.0°		-26.7	-81.08	631	90.0°		-26.7	-81.08	631	90.0°								
SEPTEMBER 1, 1963															SEPTEMBER 5, 1963														
1 11.1	89.66	47.5	31.7	-81.95	1183	90.0°		31.7	-82.02	1191	90.0°		31.2	-82.10	1211	90.0°		31.2	-82.10	1211	90.0°								
2 11.1	89.71	45.0	29.9	-80.01	1205	72.1°		37.5	-103.97	1148	107.8°		37.0	-104.06	1191	107.9°		37.0	-104.06	1191	107.9°								
3 11.1	89.76	40.0	21.2	-44.97	1209	60.5°		42.0	-119.04	1098	119.4°		41.7	-119.13	1156	119.4°		41.7	-119.13	1156	119.4°								
4 11.1	89.81	35.0	17.7	-35.43	1191	53.8°		45.3	-128.57	1054	126.1°		45.0	-128.64	1121	126.1°		45.0	-128.64	1121	126.1°								
5 11.1	89.86	30.0	14.2	-28.25	1172	49.2°		48.1	-135.85	1013	130.7°		47.9	-135.89	1085	130.7°		47.9	-135.89	1085	130.7°								
6 11.1	89.91	20.0	9.5	-17.11	1124	43.5°		53.1	-147.07	934	136.4°		53.0	-147.07	1013	136.4°		53.0	-147.07	1013	136.4°								
7 11.1	89.96	0.0	0.0	0.0	1000	39.8°		61.7	-164.38	792	140.1°		62.0	-164.38	865	140.1°		62.0	-164.38	865	140.1°								
8 11.1	89.01	-20.0	-4.9	17.24	859	33.7°		-45.0	-149.11	679	136.2°		-44.5	-149.11	733	136.2°		-44.5	-149.11	733	136.2°								
9 11.1	89.06	-30.0	-13.6	28.54	787	29.4°		-40.7	-137.73	657	130.5°		-40.0	-137.69	678	130.5°		-40.0	-137.69	678	130.5°								
10 11.1	89.11	-35.0	-18.1	35.89	750	24.0°		-38.3	-130.35	674	126.0°		-37.6	-130.35	693	126.0°		-37.6	-130.35	693	126.0°								
11 11.1	89.16	-40.0	-19.0	45.53	712	20.7°		-35.5	-120.67	613	119.3°		-34.9	-120.64	631	119.3°		-34.9	-120.64	631	119.3°								
12 11.1	89.21	-45.0	-22.8	60.79	670	12.2°		-31.9	-105.38	610	107.8°		-31.2	-105.36	614	107.8°		-31.2	-105.36	614	107.8°								
13 11.1	89.26	-47.5	-27.4	83.04	631	90.0°		-27.3	-81.13	624	90.0°		-26.4	-81.10	636	90.0°		-26.4	-81.10	636	90.0°								
SEPTEMBER 6, 1963															SEPTEMBER 9, 1963														
1 11.1	89.31	47.5	31.7	-81.95	1183	90.0°		31.7	-82.04	1198	90.0°		31.0	-82.12	1217	90.0°		31.0	-82.12	1217	90.0°								
2 11.1	89.36	45.0	29.9	-80.01	1205	72.1°		37.4	-103.99	1160	107.8°		36.9	-104.07	1199	107.9°		36.9	-104.07	1199	107.9°								
3 11.1	89.41	40.0	21.2	-44.97	1209	60.5°		41.9	-119.07	1113	119.4°		41.5	-119.14	1166	119.4°		41.5	-119.14	1166	119.4°								
4 11.1	89.46	35.0	17.7	-35.43	1191	53.8°		45.3	-128.58	1071	126.1°		45.0	-128.65	1132	126.1°		45.0	-128.65	1132	126.1°								
5 11.1	89.51	30.0	14.2	-28.25	1172	49.2°		48.1	-135.85	1031	130.7°		47.9	-135.97	1102	130.7°		47.9	-135.97	1102	130.7°								
6 11.1	89.56	20.0	9.5	-17.11	1124	43.5°		53.1	-147.08	952	136.4°		53.0	-147.09	1011	136.4°		53.0	-147.09	1011	136.4°								
7 11.1	89.61	0.0	0.0	0.0	1000	39.8°		61.6	-164.40	809	140.1°		62.0	-164.40	886	140.1°		62.0	-164.40	886	140.1°								
8 11.1	89.66	-20.0	-4.9	17.24	859	33.7°		-44.8	-149.15	691	136.2°		-44.3	-149.15	749	136.2°		-44.3	-149.15	749	136.2°								
9 11.1	89.71	-30.0	-13.6	28.54	787	29.4°		-40.5	-137.77	667	130.5°		-40.0	-137.77	690	130.5°		-40.0	-137.77	690	130.5°								
10 11.1	89.76	-35.0	-18.1	35.89	750	24.0°		-38.1	-130.39	679	126.0°		-37.4	-130.39	697	126.0°		-37.4	-130.39	697	126.0°								
11 11.1	89.81	-40.0	-19.0	45.53	712	20.7°		-35.4	-120.72	614	119.3°		-34.7	-120.72	633	119.3°		-34.7	-120.72	633	119.3°								
12 11.1	89.86	-45.0	-22.8	60.79	670	12.2°		-31.7	-105.43	604	107.8°		-31.0	-105.43	615	107.8°		-31.0	-105.43	615	107.8°								
13 11.1	89.91	-47.5	-27.4	83.04	631	90.0°		-27.1	-81.17	618	90.0°		-26.2	-81.14	624	90.0°		-26.2	-81.14	624	90.0°								
SEPTEMBER 10, 1963															SEPTEMBER 13, 1963														
1 11.1	89.96	47.5	31.7	-81.95	1183	90.0°		31.7	-82.07	1208	90.0°		31.0	-82.15	1227	90.0°		31.0	-82.15	1227	90.0°								
2 11.1	89.01	45.0	29.9	-80.01	1205	72.1°		37.5	-103.99	1170	107.8°		36.9	-104.07	1207	107.9°		36.9	-104.07	1207	107.9°								
3 11.1	89.06	40.0	21.2	-44.97	1209	60.5°		41.9	-119.07	1123	119.4°		41.5	-119.14	1174	119.4°		41.5	-119.14	1174	119.4°								
4 11.1	89.11	35.0	17.7	-35.43	1191	53.8°		45.3	-128.58	1073	126.1°		45.0	-128.65	1141	126.1°		45.0	-128.65	1141	126.1°								
5 11.1	89.16	30.0	14.2	-28.25	1172	49.2°		48.1	-135.85	1033	130.7°		47.9	-135.97	1110	130.7°		47.9	-135.97	1110	130.7°								
6 11.1	89.21	20.0	9.5	-17.11	1124	43.5°		53.1	-147.08	954	136.4°		53.0	-147.09	1017	136.4°		53.0	-147.09	1017	136.4°								
7 11.1	89.26	0.0	0.0	0.0	1000	39.8°		61.6	-164.42	811	140.1°		62.0	-164.42	890	140.1°		62.0	-164.42	890	140.1°								
8 11.1	89.31	-20.0	-4.9	17.24	859	33.7°		-44.8	-149.15	693	136.2°		-44.3	-149.15	759	136.2°		-44.3	-149.15	759	136.2°								
9 11.1	89.36	-30.0	-13.6	28.54	787	29.4°		-40.5	-137.77	669	130.5°		-40.0	-137.77	692	130.5°		-40.0	-137.77	692	130.5°								
10 11.1	89.41	-35.0	-18.1	35.89	750	24.0°		-38.1	-130.39	681	126.0°		-37.4	-130.39	700	126.0°		-37.4	-130.39	700	126.0°								
11 11.1	89.46	-40.0	-19.0	45.53	712	20.7°		-35.4	-120.72	616	119.3°		-34.7	-120.72	635	119.3°		-34.7	-120.72	635	119.3°								
12 11.1	89.51	-45.0	-22.8	60.79	670	12.2°		-31.7	-105.43	606	107.8°</																		