

PROJECT 10073 RECORD CARD

1. DATE 3 April 1963		2. LOCATION 32.32N 177.20W (Pacific)		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☒ Other <u>satellite</u> <i>ECHO</i> ☐ Insufficient Data for Evaluation ☐ Unknown	
3. DATE-TIME GROUP Local _____ GMT 04/0857Z		4. TYPE OF OBSERVATION ☐ Ground-Visual ☐ Ground-Radar ☒ Air-Visual ☐ Air-Intercept Radar			
5. PHOTOS ☐ Yes ☒ No		6. SOURCE Military			
7. LENGTH OF OBSERVATION not reported		8. NUMBER OF OBJECTS one			
9. COURSE East					
10. BRIEF SUMMARY OF SIGHTING CIRVIS report of possible satellite. Size of pin.				11. COMMENTS ECHO data not available . Object considered to be possible satellite by reporting officials. <i>At 0817Z ECHO (20500 ALTITUDE) IT WAS E. THIS WOULD PLACE THE SATELLITE TO THE NORTH OF THE SP. AS IT BECAME ITS SOUTHERLY MOTION. CASE EVALUATED AS ECHO I.</i>	

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

INCOMING

AF IN : 16854 (3 Apr 63) D/Ho

SMB D 158 U INFO : NIN-9, XOP-1, XOPX-4, SAFOS-3, ARMY-2, NAVY-2,
ZCZCHQA897ZCQJA815 CMC-8, JCS-35, OSD-15, CIA-11, NSA-7, DIA-20,
DIA-CIIC-2 (118)

***** 00 RUEAHQ

DE RUHLKH 4

O 030925Z

FM 326 AIR DIV JUNIA FACILITY HAWAII

TO RUHLKM/PWCAF HICKAM AFB HAWAII

RUHPQ/COMHAWSEAFRON PEARL HARBOR HAWAII

INFO RUEAHQ/COFS USAF WASHINGTON DC

RUWGALB/CINCNOAD ENT AFB COPO

RUHPHQCINCPUR CAMP H M SMITH HAWAII

RUHAFS/KINCUSARPAC FT SHAFTER HAWAII

RUHPB/CINCPACFLT PEARL HARBOR HAWAII

RUUAUZ/COMUSJAPAF FUCHU AS JAPAN

RUAMCR/COMUSKOREA SEOUL KOREA

RUAGFL/COMUSTDC JCB33 TAIWAN

47#OS/COMASWFORPAC FORD ISLAND HAWAII

RACSB/CINCSAC OFFUTT AFB NEB

RUECW/CNO WASHINGTON DC

RUECW/SECNAV WASHINGTON DCN

RUHPHH/HAWSEAFRON KUNIA TUNNEL ANNEX

AF GRNC

BT

UNCLAS/C I R V I S/ POSSIBLE SATELLITE SIGHTED. HEADING

WAS EASTBOUND. OBJECT WAS SIGHTED BY A NAVY A/C AT

A POSITION 32 DEG 32 MIN NORTH, 177 DEG 20 MIN WEST

04/0857Z. SIZE OF A PIN. NO EVALUATION.

BZ

NOTE : ADVANCE COPIES DELIVERED TO DIA, NIN AND XOPX.

MARCH 27, 1963

SATELLITE 1960 JOTA 1, ECHO 1

These predictions are based on orbital elements revised on March 25, 1963.
 T_0 = March 26.0, times are in days, U.T.
 Argument of perigee = $252.88 + 4.78 (t - T_0)$
 Right ascension of ascending node = $72.253 - 3.2568 (t - T_0)$
 Expected average magnitude = +1

Inclination = 47.2509°
 Eccentricity = 0.004973
 Semi-major axis = 7.657969 megameters
 Mean anomaly (Rev.) = $0.1762 + 12.462332 (t - T_0) + 3.56 \times 10^{-5} (t - T_0)^2$

SATELLITE 1960 JOTA 1 FOR OTHER LATITUDES										SATELLITE 1960 JOTA 1 FOR OTHER LATITUDES											
EQUATOR S-N		LAT.	SOUTH-NORTH		HT. (MI)	BEAR. (N-E)	NORTH-SOUTH		BEAR. (N-E)	EQUATOR S-N		LAT.	SOUTH-NORTH		HT. (MI)	BEAR. (N-E)	NORTH-SOUTH		BEAR. (N-E)		
TIME (UT)	LONG. (W)		TIME CORR.	LONG. CORR.			TIME CORR.	LONG. CORR.		TIME (UT)	LONG. (W)		TIME CORR.	LONG. CORR.			TIME CORR.	LONG. CORR.			
MARCH 30, 1963																					
0 29.1	133.60	47.4	29.1	-82.63	951	90.0*	29.1	-82.67	951	90.0*	0 36.2	133.37	47.4	29.0	-82.65	949	90.0*	29.0	-82.69	949	90.0*
2 20.6	162.79	45.0	23.8	-60.64	948	72.3*	34.4	-104.85	948	107.7*	2 31.6	162.56	45.0	23.7	-60.66	945	72.3*	34.3	-104.67	950	107.7*
4 16.0	191.99	40.0	19.6	-45.44	946	60.7*	38.6	-119.85	946	119.3*	4 27.0	211.75	40.0	19.5	-45.45	940	60.7*	38.5	-119.87	949	119.3*
6 11.4	221.19	35.0	16.5	-35.84	942	54.0*	41.7	-129.45	943	126.0*	6 22.5	240.95	35.0	16.4	-35.85	936	54.0*	41.6	-129.46	947	126.0*
8 6.8	250.38	30.0	13.8	-28.53	938	49.4*	44.4	-136.74	940	130.6*	8 17.9	270.15	30.0	13.7	-28.54	931	49.4*	44.3	-136.77	944	130.6*
10 2.2	279.58	20.0	8.9	-17.27	931	43.7*	49.3	-148.02	933	136.3*	10 13.3	299.34	20.0	8.9	-17.28	923	43.7*	49.2	-148.03	939	136.3*
11 57.7	308.77	0.	0.	0.	918	39.9	58.1	-165.29	920	140.1*	12 8.7	328.54	0.	0.	0.	910	39.9	58.1	-165.30	928	140.1*
13 53.1	337.97	-20.0	-8.9	17.28	909	43.7	-58.6	-186.19	910	136.3*	14 4.1	357.73	-20.0	-8.8	17.29	904	43.7	-58.6	-186.19	918	136.3*
15 48.5	367.16	-30.0	-13.7	28.56	906	49.4	-54.8	-195.97	917	130.6*	15 59.6	386.93	-30.0	-13.6	28.56	901	49.4	-54.7	-195.97	915	130.6*
17 43.9	396.36	-35.0	-16.3	35.88	904	54.0	-51.1	-199.89	925	126.0*	17 55.0	416.12	-35.0	-16.3	35.89	900	54.0	-51.1	-199.89	917	126.0*
19 39.4	425.56	-40.0	-19.4	45.49	903	60.7	-48.0	-199.99	924	119.3*	19 50.4	435.32	-40.0	-19.4	45.50	901	60.7	-48.0	-199.99	909	119.3*
21 34.8	454.75	-45.0	-23.5	60.71	902	72.3	-45.9	-194.71	901	107.7*	21 45.8	474.51	-45.0	-23.5	60.72	902	72.3*	-45.8	-194.78	908	107.7*
23 30.2	483.95	-47.4	-28.7	82.73	902	90.0*	-28.7	-82.73	902	90.0*	23 41.2	503.71	-47.4	-28.6	82.73	904	90.0*	-28.7	-82.77	904	90.0*
MARCH 31, 1963																					
1 25.6	153.14	47.4	29.0	-82.63	951	90.0*	29.1	-82.67	951	90.0*	1 36.7	172.90	47.4	29.0	-82.65	948	90.0*	29.0	-82.69	948	90.0*
3 21.0	182.34	45.0	23.8	-60.64	948	72.3*	34.3	-104.85	948	107.7*	3 32.1	202.10	45.0	23.7	-60.66	944	72.3*	34.3	-104.68	949	107.7*
5 16.5	211.54	40.0	19.6	-45.44	946	60.7*	38.5	-119.85	947	119.3*	5 27.5	231.29	40.0	19.5	-45.46	938	60.7*	38.5	-119.88	948	119.3*
7 11.9	240.73	35.0	16.5	-35.84	942	54.0*	41.7	-129.45	944	126.0*	7 22.9	260.49	35.0	16.4	-35.86	934	54.0*	41.6	-129.47	947	126.0*
9 7.3	269.92	30.0	13.8	-28.53	937	49.4*	44.4	-136.74	941	130.6*	9 18.3	289.68	30.0	13.7	-28.54	929	49.4*	44.3	-136.78	945	130.6*
11 2.7	299.12	20.0	8.9	-17.27	929	43.7*	49.3	-148.02	935	136.3*	11 13.8	318.88	20.0	8.9	-17.28	921	43.7*	49.2	-148.03	940	136.3*
12 58.2	328.31	0.	0.	0.	916	39.9	58.1	-165.29	912	130.1*	13 9.2	348.07	0.	0.	0.	909	39.9	58.1	-165.30	910	130.1*
14 53.6	357.51	-20.0	-8.9	17.28	907	43.7	-58.6	-186.19	912	136.3*	15 4.6	377.27	-20.0	-8.8	17.29	901	43.7	-58.6	-186.19	920	136.3*
16 49.0	386.71	-30.0	-13.7	28.56	904	49.4	-54.8	-195.97	928	130.6*	17 0.0	406.46	-30.0	-13.6	28.57	900	49.4	-54.7	-195.97	915	130.6*
18 44.4	415.90	-35.0	-16.3	35.88	903	54.0	-51.1	-199.89	924	126.0*	18 55.4	435.66	-35.0	-16.3	35.89	900	54.0	-51.1	-199.89	913	126.0*
20 39.8	445.10	-40.0	-19.4	45.49	902	60.7	-48.0	-199.99	925	119.3*	20 50.9	464.85	-40.0	-19.4	45.50	900	60.7	-48.0	-199.99	911	119.3*
22 35.2	474.29	-45.0	-23.5	60.71	902	72.3	-45.9	-194.71	904	107.7*	22 46.3	494.05	-45.0	-23.5	60.72	902	72.3*	-45.8	-194.78	908	107.7*
		-47.4	-28.7	82.73	902	90.0*	-28.7	-82.73	902	90.0*			-47.4	-28.6	82.73	904	90.0*	-28.7	-82.78	908	90.0*
APRIL 1, 1963																					
0 30.7	153.49	47.4	29.0	-82.64	950	90.0*	29.0	-82.68	950	90.0*	0 41.7	183.24	47.4	28.9	-82.66	947	90.0*	29.0	-82.70	947	90.0*
2 26.1	182.68	45.0	23.8	-60.65	947	72.3*	34.3	-104.86	950	107.7*	2 37.1	212.44	45.0	23.7	-60.67	942	72.3*	34.2	-104.68	949	107.7*
4 21.5	211.88	40.0	19.6	-45.45	943	60.7*	38.5	-119.86	948	119.3*	4 32.5	241.63	40.0	19.5	-45.46	937	60.7*	38.5	-119.88	948	119.3*
6 16.9	241.07	35.0	16.5	-35.85	939	54.0*	41.7	-129.46	945	126.0*	6 27.9	270.82	35.0	16.4	-35.86	932	54.0*	41.6	-129.48	948	126.0*
8 12.3	270.27	30.0	13.8	-28.54	935	49.4*	44.4	-136.75	942	130.6*	8 18.3	299.97	30.0	13.7	-28.55	927	49.4*	44.3	-136.78	947	130.6*
10 7.8	299.46	20.0	8.9	-17.27	927	43.7*	49.3	-148.02	938	136.3*	10 13.8	329.17	20.0	8.9	-17.28	919	43.7*	49.2	-148.04	941	136.3*
12 3.2	328.66	0.	0.	0.	914	39.9	58.1	-165.30	924	130.1*	12 9.2	358.37	0.	0.	0.	907	39.9	58.1	-165.31	913	130.1*
14 58.6	357.85	-20.0	-8.9	17.28	905	43.7	-58.6	-186.19	914	136.3*	14 4.6	387.57	-20.0	-8.8	17.29	900	43.7	-58.6	-186.19	922	136.3*
16 54.1	387.05	-30.0	-13.6	28.56	903	49.4	-54.8	-195.97	920	130.6*	16 5.0	416.76	-30.0	-13.6	28.57	899	49.4	-54.7	-195.97	917	130.6*
18 49.5	416.24	-35.0	-16.3	35.88	902	54.0	-51.1	-199.89	928	126.0*	18 55.4	445.95	-35.0	-16.3	35.89	900	54.0	-51.1	-199.89	915	126.0*
20 44.9	445.44	-40.0	-19.4	45.49	902	60.7	-48.0	-199.99	924	119.3*	20 50.9	475.14	-40.0	-19.4	45.50	900	60.7	-48.0	-199.99	913	119.3*
22 40.3	474.64	-45.0	-23.5	60.71	902	72.3	-45.9	-194.71	904	107.7*	22 46.3	504.33	-45.0	-23.5	60.72	902	72.3*	-45.8	-194.78	908	107.7*
24 35.7	503.83	-47.4	-28.7	82.73	903	90.0*	-28.7	-82.73	903	90.0*	24 46.7	533.52	-47.4	-28.6	82.73	905	90.0*	-28.7	-82.78	905	90.0*
APRIL 2, 1963																					
1 31.2	163.03	47.4	29.0	-82.65	950	90.0*	29.0	-82.68	950	90.0*	1 42.1	192.22	47.4	28.9	-82.66	946	90.0*	28.9	-82.70	946	90.0*
3 26.6	192.22	45.0	23.7	-60.65	946	72.3*	34.3	-104.87	949	107.7*	3 37.6	221.41	45.0	23.7	-60.67	941	72.3*	34.2	-104.69	949	107.7*
5 22.0	221.42	40.0	19.5	-45.45	942	60.7*	38.5	-119.87	948	119.3*	5 33.0	250.60	40.0	19.5	-45.46	935	60.7*	38.5	-119.88	948	119.3*
7 17.4	250.61	35.0	16.4	-35.85	937	54.0*	41.6	-129.46	946	126.0*	7 28.4	279.79	35.0	16.4	-35.86	930	54.0*	41.5	-129.48	948	126.0*
9 12.8	279.81	30.0	13.7	-28.54	933	49.4*	44.3	-136.75	943	130.6*	9 23.8	308.98	30.0	13.7	-28.55	925	49.4*	44.3	-136.79	947	130.6*
11 8.3	309.00	20.0	8.9	-17.27	925	43.7*	49.2	-148.03	938	136.3*	11 19.2	338.17	20.0	8.9	-17.28	917	43.7*	49.1	-148.04	942	136.3*
13 3.7	338.20	0.	0.	0.	912	39.9	58.1	-165.31	924	130.1*	13 14.6	367.36	0.	0.	0.	905	39.9	58.1	-165.31	913	130.1*
15 54.1	367.39	-20.0	-8.9	17.28	904	43.7	-58.6	-186.20	914	136.3*	15 10.1	396.55	-20.0	-8.8	17.29	895	43.7	-58.6	-186.20	915	136.3*
17 49.5	396.59	-30.0	-13.6	28.56	902	49.4	-54.7	-195.97													