

PROJECT 10073 RECORD CARD

1. DATE 7 February 1963		2. LOCATION 15.34N 100.48W (Pacific)		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☒ Other satellite	
3. DATE-TIME GROUP Local _____ GMT 07/1230Z		4. TYPE OF OBSERVATION ☒ Ground-Visual ☐ Ground-Radar ☐ Air-Visual ☐ Air-Intercept Radar			
5. PHOTOS ☐ Yes ☒ No		6. SOURCE military			
7. LENGTH OF OBSERVATION 5 minutes		8. NUMBER OF OBJECTS one		9. COURSE northeast	
10. BRIEF SUMMARY OF SIGHTING Satellite sighted at 40 dgr elevation below star Antares. Moving in northward direction of about 035 dgr T. Appeared to be in polar orbit.				11. COMMENTS ECHO data not available. Sighting is characteristic of Satellite and was reported as a satellite sighting not a UFO. ECHO (LOSER) EQUATOR. AT 9972 MIN IN AT 12282 HEADING NE. DEFINITE ECHO I SIGHTING.	

07/12302
OPTIONAL FORM NO. 10
5010-103

UNITED STATES GOVERNMENT

Memorandum

TO : J. S. Lacey, OPI
NASA, Greenbelt

07/12302?
February
DATE: 19 February 1963

FROM : U.S. Naval Oceanographic Office
Code 5511:GEB

SUBJECT: Satellite sighting

Encl: (1) Reproduction of letter from USS MARYSVILLE dtd 13 Feb.

1. Enclosure (1) is forwarded for your information.

G. Buckwalter
GEORGE BUCKWALTER

U. S. S. MARYSVILLE (EPCEP-857)

C O FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

EPCEP857/EZ:qn

23/3161

13 February 1963

From: Commanding Officer, USS MARYSVILLE (EPCEP 857)
To: Commander, U.S. Naval Oceanographic Office, Suitland, Maryland
Subj: Satellite sighting; report

1. The USS MARYSVILLE (EPCEP 857) in position 15-34.5N, 100-48.3W, on course 020°T, speed 6.4 knots, at approximately 1230 GMT., sighted a Satellite bearing 147°T at an altitude of 42° which when first sighted appeared slightly lower than the star Antares and moved in a northward direction, and disappeared on a bearing of 035°T. The entire observation taking about five (5) minutes. The satellite appeared to be in a polar orbit. Sighting made 7 February 1963.

2. The sky was broken with Cumulus and Cirrus clouds. Air temperature 81°F and Barometric pressure 29.91 inches, seas calm.

R. L. MC CAMERON

Copies to:

Naval Observatory, Wash, D.C.

U.S. Navy Branch Office

Oceanographic, Wilmington, Cal.

SMITHSONIAN ASTRONOMICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS

JANUARY 30, 1963

SATELLITE 1960 IOTA 1, ECHO I

These predictions are based on orbital elements revised on January 28, 1963
 T₀ = January 29.0, times are in days, U.T.
 Argument of perigee = $8^{\circ}18' + 4^{\circ}142 (t-T_0)$
 Right ascension of ascending node = $235^{\circ}06.1 - 1^{\circ}2627 (t-T_0)$

Inclination = $47^{\circ}26.69$ Eccentricity = $0.035219 - 2.141 \times 10^{-4} (t-T_0)$

Semi-major axis = 7.858130 megameters

Mean anomaly (Rev.) = $0.24414 + 12.461969 (t-T_0) - 1.37 \times 10^{-6} (t-T_0)^2$

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES										SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES											
EQUATOR S-N		LAT.	SOUTH-NORTH				NORTH-SOUTH	SEAR. (N-E)	EQUATOR S-N		LAT.	SOUTH-NORTH				NORTH-SOUTH	SEAR. (N-E)				
TIME (UT)	LONG. (W)		TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)			TIME (UT)	LONG. (W)		TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)						
FEBRUARY 2, 1963																					
1 37.4	271.92	47.5	27.2	-83.09	851	90.0*	27.2	-83.14	851	90.0*	1 49.9	294.09	47.5	27.2	-83.10	815	90.0*	27.2	-83.15	815	90.0*
3 32.3	303.13	45.0	22.2	-60.97	812	72.2*	32.3	-105.23	812	72.2*	3 45.4	323.29	45.0	22.2	-60.97	766	72.2*	32.2	-105.26	851	107.8*
5 28.1	332.33	40.0	18.2	-45.74	786	60.7*	36.5	-120.43	831	119.8*	5 40.8	352.49	40.0	18.3	-45.73	770	60.7*	36.3	-120.46	844	119.1*
7 23.4	1.53	35.0	15.3	-36.10	772	54.0*	39.6	-129.99	858	126.1*	7 36.3	21.70	35.0	15.4	-36.09	762	54.0*	39.4	-130.06	910	126.1*
9 19.2	30.74	30.0	12.8	-28.75	762	49.4*	42.4	-137.29	881	136.7*	9 31.7	50.90	30.0	12.9	-28.73	759	49.4*	42.1	-137.37	933	136.6*
11 14.6	59.94	20.0	8.3	-17.41	753	43.7*	47.4	-146.51	919	146.4*	11 27.2	80.10	20.0	8.4	-17.39	762	43.7*	47.0	-146.61	974	146.4*
13 10.1	89.14	0.	0.	0.	767	40.0*	56.7	-165.86	970	166.2*	13 22.6	109.30	0.	0.	0.	795	39.4*	56.1	-165.80	1039	140.2*
15 5.5	118.35	-20.0	-8.4	17.36	816	43.7*	-49.6	166.00	1004	166.4*	15 18.1	138.51	-20.0	-8.5	17.35	858	43.7*	-50.0	167.83	1074	130.3*
17 1.0	147.55	-35.0	-13.1	28.68	864	49.4*	-44.2	156.02	1036	156.2*	17 13.5	167.71	-35.0	-13.3	28.63	901	49.4*	-44.9	167.66	1086	130.7*
19 56.6	176.75	-45.0	-18.7	45.01	976	60.7*	-41.4	129.20	1065	129.1*	19 9.1	196.91	-45.0	-18.0	35.94	926	53.9*	-42.0	129.40	1085	126.1*
21 51.9	205.96	-40.0	-18.7	45.01	971	60.7*	-36.1	129.02	1059	119.8*	21 4.4	226.12	-40.0	-19.1	45.53	955	60.6*	-38.7	119.86	1079	119.8*
23 47.3	235.16	-45.0	-22.5	60.74	986	72.2*	-31.7	104.84	1044	104.8*	23 59.9	255.32	-45.0	-23.3	60.68	991	72.2*	-34.3	104.75	1053	104.8*
		-47.5	-28.7	82.83	993	70.0*	-20.3	82.80	973	80.0*			-47.5	-28.7	82.70	1032	90.0*	-28.8	82.75	1032	90.0*
FEBRUARY 3, 1963																					
0 42.5	264.36	47.5	27.2	-83.09	841	90.0*	27.2	-83.14	841	90.0*	0 55.3	284.52	47.5	27.2	-83.10	808	90.0*	27.7	-83.15	808	90.0*
2 38.2	293.57	45.0	22.2	-60.97	804	72.2*	32.3	-105.24	864	126.8*	2 50.8	313.73	45.0	22.2	-60.96	781	72.2*	32.7	-105.27	852	107.8*
4 33.7	322.77	40.0	18.2	-45.74	781	60.7*	36.5	-120.43	890	136.8*	4 46.2	342.93	40.0	18.3	-45.72	767	60.7*	36.3	-120.47	878	119.1*
6 29.1	351.97	35.0	15.3	-36.10	768	54.0*	39.6	-130.03	919	146.1*	6 41.7	372.13	35.0	15.4	-36.08	762	54.0*	39.3	-130.07	899	126.0*
8 24.6	381.18	30.0	12.8	-28.75	760	49.4*	42.3	-137.31	959	156.7*	8 37.1	401.34	30.0	12.9	-28.73	760	49.4*	42.0	-137.38	927	130.6*
10 20.0	50.38	20.0	8.3	-17.41	754	43.7*	47.3	-146.53	1008	166.4*	10 32.6	70.56	20.0	8.4	-17.39	766	43.7*	46.9	-146.63	962	136.4*
12 15.5	79.58	0.	0.	0.	772	40.0*	56.5	-165.70	1068	176.2*	12 28.0	99.74	0.	0.	0.	803	39.9*	56.0	-165.83	1030	140.2*
14 11.0	108.79	-20.0	-8.4	17.37	825	43.7*	-49.6	167.95	1088	176.4*	14 23.5	128.94	-20.0	-8.6	17.34	869	43.7*	-50.2	167.80	1075	136.4*
16 6.4	137.99	-35.0	-13.1	28.67	865	49.4*	-44.4	156.78	1085	136.7*	16 18.9	158.15	-35.0	-13.3	28.61	913	49.4*	-45.0	136.62	1085	130.7*
18 1.9	167.19	-45.0	-18.7	45.01	970	60.7*	-41.5	129.52	1076	126.0*	18 14.4	187.35	-45.0	-18.0	35.92	937	53.9*	-46.1	129.36	1086	126.1*
19 51.3	196.40	-40.0	-18.7	45.01	971	60.7*	-36.2	119.98	1065	119.8*	19 9.8	216.55	-40.0	-19.2	45.51	966	60.6*	-38.8	119.82	1052	119.8*
21 46.8	225.60	-45.0	-22.5	60.76	987	72.2*	-31.8	104.86	1042	104.8*	21 5.3	245.75	-45.0	-23.4	60.65	1001	72.2*	-34.4	104.71	1068	107.8*
23 42.3	254.80	-47.5	-28.7	82.83	1003	70.0*	-26.4	82.85	1001	90.0*			-47.5	-28.9	82.67	1040	90.0*	-26.9	82.72	1040	90.0*
FEBRUARY 4, 1963																					
0 44.7	284.01	47.5	27.2	-83.10	831	90.0*	27.2	-83.14	831	90.0*	0 57.7	304.26	47.5	27.2	-83.09	801	90.0*	27.7	-83.15	801	90.0*
2 40.1	313.21	45.0	22.2	-60.97	797	72.2*	32.3	-105.25	872	136.8*	2 56.2	324.46	45.0	22.2	-60.96	777	72.2*	32.2	-105.27	853	107.8*
4 36.0	342.41	40.0	18.2	-45.74	776	60.7*	36.5	-120.44	907	146.1*	4 48.5	354.67	40.0	18.3	-45.71	766	60.7*	36.3	-120.47	864	119.1*
6 31.9	371.62	35.0	15.3	-36.10	765	54.0*	39.6	-130.03	936	156.1*	6 44.1	386.93	35.0	15.4	-36.07	762	54.0*	39.3	-130.06	880	126.0*
8 27.5	400.82	30.0	12.8	-28.75	759	49.4*	42.3	-137.31	977	166.7*	8 39.5	412.17	30.0	12.9	-28.72	762	49.4*	42.0	-137.34	911	130.6*
10 23.0	70.02	20.0	8.3	-17.41	756	43.7*	47.3	-146.53	1027	176.4*	10 35.0	60.21	20.0	8.4	-17.38	771	43.7*	46.8	-146.65	951	136.4*
12 18.4	99.23	0.	0.	0.	780	40.0*	56.5	-165.70	1088	186.2*	12 30.4	90.40	0.	0.	0.	812	39.9*	56.9	-165.86	1020	140.2*
14 13.8	128.43	-20.0	-8.4	17.37	836	43.7*	-49.7	167.91	1088	186.4*	14 25.9	119.58	-20.0	-8.6	17.33	880	43.7*	-50.3	167.76	1079	136.4*
16 9.3	157.63	-35.0	-13.1	28.67	877	49.4*	-44.5	156.79	1086	136.7*	16 21.1	148.78	-35.0	-13.3	28.60	924	49.4*	-45.2	136.59	1083	130.7*
18 4.7	186.84	-45.0	-18.7	45.01	977	60.7*	-41.7	129.50	1081	126.1*	18 16.8	177.99	-45.0	-18.0	35.91	949	53.9*	-42.3	129.32	1052	126.1*
20 50.2	216.04	-40.0	-18.7	45.01	977	60.7*	-36.4	119.99	1070	119.8*	20 12.2	208.19	-40.0	-19.2	45.48	976	60.6*	-39.0	119.79	1083	119.8*
22 45.6	245.24	-45.0	-22.5	60.74	989	72.2*	-31.0	104.82	1050	107.8*	22 10.7	236.39	-45.0	-23.5	60.63	1011	72.2*	-34.0	104.68	1073	107.8*
		-47.5	-28.7	82.77	1014	70.0*	-26.5	82.81	1014	90.0*			-47.5	-29.0	82.64	1047	90.0*	-29.0	82.69	1048	90.0*
FEBRUARY 5, 1963																					
0 49.1	274.45	47.5	27.2	-83.10	821	90.0*	27.2	-83.14	821	90.0*	1 1.5	294.60	47.5	27.2	-83.09	795	90.0*	27.2	-83.14	795	90.0*
2 44.5	303.65	45.0	22.2	-60.97	791	72.2*	32.3	-105.25	862	136.8*	2 57.0	314.80	45.0	22.2	-60.95	774	72.2*	32.2	-105.26	825	107.8*
4 40.0	332.85	40.0	18.2	-45.73	773	60.7*	36.5	-120.45	896	146.1*	4 52.4	335.00	40.0	18.3	-45.70	765	60.7*	36.3	-120.48	853	119.1*
6 35.4	362.05	35.0	15.3	-36.09	764	54.0*	39.6	-130.04	926	156.1*	6 47.9	355.21	35.0	15.4	-36.06	764	54.0*	39.3	-130.06	877	126.0*
8 30.9	391.26	30.0	12.8	-28.74	759	49.4*	42.3	-137.33	965	166.7*	8 49.3	386.41	30.0	12.9	-28.71	765	49.4*	41.9	-137.40	899	130.6*
10 26.9	50.46	20.0	8.4	-17.40	759	43.7*	47.0	-146.54	1016	176.4*	10 39.3	60.61	20.0	8.4	-17.37	776	43.7*	46.8	-146.66	939	136.4*
12 21.8	79.66	0.	0.	0.	787	40.0*	56.7	-165.77	1076	186.2*	12 31.2	90.81	0.	0.	0.	827	39.9*	56.9	-165.88	1010	140.2*
14 17.2	108.87	-20.0	-8.5	17.36	837	43.7*	-49.9	167.87	1081	186.4*	14 29.7	119.02	-20.0	-8.7	17.32	882	43.7*	-50.4	167.73	1054	136.4*
16 12.7	138.07	-35.0	-13.2	28.68	879	49.4*	-44.7	156.79	1087	136.7*	16 25.1	149.22	-35.0	-13.5	28.58	926	49.4*	-45.3	136.55	1080	130.7*
18 8.1	167.27	-45.0	-18.8	45.01	980	60.7*	-41.8	<													