PROJECT 10073 RECORD CARD

1. DATE
20 June 1963

2. LOCATION
33.12N 168.33E (Pacific)

3. DATE-TIME GROUP
Local _____
GMT 21/0830Z

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
340 deg true

10. BRIEF SUMMARY OF SIGHTING
Object bright as first magnitude star in flight at 47 deg elevation on course of 340 deg true. Believed to be Satellite.

11. COMMENTS
Duration not reported. Flight to the West, and no reported retrograde objects in orbit, tending to rule out Satellite observation. Possibility of error in direction reported. Object believed to be satellite by observers. Case listed as insufficient data in view of conflicting information.
ECLO VERY MARGINAL.

12. CONCLUSIONS
☐ Was Balloon
☐ Probably Balloon
☐ Possibly Balloon
☐ Was Aircraft
☐ Probably Aircraft
☐ Possibly Aircraft
☐ Was Astronomical
☐ Probably Astronomical
☐ Possibly Astronomical
☐ Other _____
☒ Insufficient Data for Evaluation
☐ Unknown

ATIC FORM 329 (REV 26 SEP 52)

Ro: 21/0830Z

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH

Friendly

AF IN: 8907 (21 Jun 63) SECRET MESSAGE

INCOMING

SMB A-121 ACTION: NIN-9

CZCHQA506ZCECA222 INFO: XOP-1, XOPX-4, SAFOS-3, ARMY-2, NAVY-2, CMC-8,

OO RUEAHQ JCS-35, OSD-15, NSA-7, DIA-25, DIA/CIIC-2

DE RUHPJ 62 CIA-11

ZNR (125)

O 210845Z

FM USCGC MATAGORDA

TO RUEAHQ/CHIEF OF STAFF USAF WASHDC

ZEN/CCGD FOURTEEN

RUHPS/CTF THREE TWO

RUWGALB/CINC CONAD COLORADO SPGS. COLO.

RUHPB/CINCPACFLT

INFO RUECJD/COMDT COGARD

RUWSJ/COMWESTAREA

BT

UNCLAS

MERINT.

21/0801Z 2/2.77
-104
138° W

1. MATAGORDA/NIFV. 45°N → E

2. OBJECT BRIGHT AS A FIRST MAGNITUDE STAR. 138° W

3. 33-12N 168-36E.

4. 210830Z.

5. HIGH. POSITION ANGLE 47 DEGREES.

6. COURSE 340 DEGREES TRUE.

7. NONE

8. BELIEVED TO BE A SATELLITE.

9. SEA MODERATE WEATHER BROKEN CLOUD COVER.

BT NOTE: ADVANCE COPY DELIVERED TO: XOPX, NIN & DIA
RETRANSMITTED TO: CIA

21/0859Z

SATELLITE 1960 IOTA 1
FOR OTHER LATITUDES

EQUATOR S-N TIME (UT)	EQUATOR S-N LONG. (W)	LAT.	SOUTH-NORTH TIME CORR.	SOUTH-NORTH LONG. CORR.	SOUTH-NORTH HT. (MI)	SOUTH-NORTH BEAR. (N-E)	NORTH-SOUTH TIME CORR.	NORTH-SOUTH LONG. CORR.	NORTH-SOUTH HT. (MI)	NORTH-SOUTH BEAR. (N-E)
JUNE 16, 1963										
1 27.1	121.92	47.4	28.7	-82.72	1088	90.0°	28.7	-82.76	1088	90.0°
3 22.2	151.03	45.0	23.2	-60.86	1026	72.3°	34.3	-104.56	1135	107.7°
5 17.2	180.14	40.0	18.9	-45.65	969	60.7°	38.9	-119.73	1156	119.4°
7 12.3	209.24	35.0	15.7	-36.05	925	54.0°	42.3	-129.28	1166	126.1°
9 7.3	238.35	30.0	13.1	-28.73	887	49.4°	45.3	-136.51	1167	130.7°
11 2.4	267.46	20.0	8.4	-17.42	820	43.7°	50.7	-147.65	1153	136.5°
12 57.4	296.56	0.	0.	0.	720	40.0°	60.3	-164.75	1083	140.2°
14 52.5	325.67	-20.0	-8.1	17.49	664	43.8°	-45.6	148.94	974	136.4°
16 47.6	354.78	-30.0	-12.4	28.89	656	49.5°	-40.7	137.68	909	130.6°
18 42.6	23.88	-35.0	-14.8	36.28	658	54.1°	-38.0	130.35	872	126.0°
20 37.7	52.99	-40.0	-17.6	45.98	666	60.8°	-35.0	120.72	832	119.3°
22 32.7	82.09	-45.0	-21.4	61.32	688	72.4°	-31.0	105.63	782	107.6°
		-47.4	-26.1	83.37	728	90.0°	-26.1	83.41	728	90.0°
JUNE 17, 1963										
0 27.8	111.20	47.4	28.5	-82.76	1078	90.0°	28.5	-82.80	1078	90.0°
2 22.8	140.31	45.0	23.0	-60.90	1013	72.3°	34.2	-104.63	1129	107.7°
4 17.9	169.41	40.0	18.8	-45.68	955	60.7°	38.7	-119.77	1156	119.4°
6 12.9	198.52	35.0	15.7	-36.07	910	54.0°	42.2	-129.30	1167	126.1°
8 8.0	227.62	30.0	13.0	-28.74	871	49.4°	45.1	-136.55	1170	130.7°
10 3.1	256.73	20.0	8.3	-17.43	805	43.7°	50.5	-147.70	1159	136.5°
11 58.1	285.84	0.	0.	0.	708	40.0°	60.1	-164.78	1095	140.2°
13 53.2	314.94	-20.0	-8.0	17.50	658	43.8°	-45.6	148.92	989	136.4°
15 48.2	344.05	-30.0	-12.4	28.90	652	49.5°	-40.7	137.67	923	130.6°
17 43.3	13.15	-35.0	-14.8	36.29	657	54.1°	-38.0	130.34	886	126.0°
19 38.3	42.26	-40.0	-17.6	45.99	667	60.8°	-35.0	120.71	845	119.3°
21 33.4	71.36	-45.0	-21.3	61.33	692	72.4°	-31.0	105.43	793	107.6°
23 28.4	100.47	-47.4	-26.1	83.38	736	90.0°	-26.1	83.41	736	90.0°
JUNE 18, 1963										
1 23.5	129.57	47.4	28.4	-82.81	1067	90.0°	28.4	-82.84	1067	90.0°
3 18.5	158.67	45.0	22.9	-60.93	999	72.3°	34.0	-104.68	1122	107.7°
5 13.6	187.78	40.0	18.6	-45.71	939	60.7°	38.5	-119.82	1152	119.4°
7 8.6	216.88	35.0	15.6	-36.10	894	54.0°	41.9	-129.35	1166	126.1°
9 3.7	245.99	30.0	12.9	-28.76	855	49.4°	44.9	-136.60	1172	130.7°
10 58.7	275.09	20.0	8.3	-17.44	790	43.7°	50.3	-147.75	1166	136.5°
12 53.8	304.20	0.	0.	0.	696	40.0°	60.0	-164.82	1108	140.2°
14 48.8	333.30	-20.0	-8.0	17.51	651	43.8°	-45.7	148.90	1005	136.4°
16 43.8	2.40	-30.0	-12.3	28.91	650	49.5°	-40.8	137.65	939	130.6°
18 38.9	31.51	-35.0	-14.7	36.30	656	54.1°	-38.1	130.33	901	126.0°
20 33.9	60.61	-40.0	-17.5	46.00	669	60.8°	-35.0	120.71	859	119.3°
22 29.0	89.71	-45.0	-21.4	61.34	693	72.4°	-31.0	105.43	805	107.6°
		-47.4	-26.1	83.38	745	90.0°	-26.1	83.42	745	90.0°
JUNE 19, 1963										
0 24.0	118.82	47.4	28.2	-82.85	1055	90.0°	28.2	-82.88	1056	90.0°
2 19.1	147.92	45.0	22.8	-60.97	985	72.3°	33.8	-104.72	1114	107.7°
4 14.1	177.02	40.0	18.5	-45.74	924	60.7°	38.3	-119.87	1148	119.4°
6 9.2	206.13	35.0	15.4	-36.12	878	54.0°	41.8	-129.40	1165	126.1°
8 4.2	235.23	30.0	12.8	-28.78	840	49.4°	44.7	-136.65	1173	130.7°
9 59.2	264.33	20.0	8.2	-17.45	775	43.8°	50.1	-147.79	1171	136.5°
11 54.3	293.44	0.	0.	0.	686	40.0°	59.8	-164.86	1120	140.2°
13 49.3	322.54	-20.0	-8.0	17.51	646	43.8°	-45.8	148.87	1019	136.4°
15 44.4	351.64	-30.0	-12.3	28.92	648	49.5°	-40.9	137.63	954	130.6°
17 39.4	20.74	-35.0	-14.7	36.31	657	54.1°	-38.1	130.32	916	126.0°
19 34.4	49.85	-40.0	-17.5	46.00	672	60.8°	-35.1	120.70	873	119.3°
21 29.5	78.95	-45.0	-21.3	61.35	702	72.4°	-31.0	105.42	817	107.6°
23 24.5	108.05	-47.4	-26.1	83.38	754	90.0°	-26.1	83.42	754	90.0°

SATELLITE 1960 IOTA 1
FOR OTHER LATITUDES

EQUATOR S-N TIME (UT)	EQUATOR S-N LONG. (W)	LAT.	SOUTH-NORTH TIME CORR.	SOUTH-NORTH LONG. CORR.	SOUTH-NORTH HT. (MI)	SOUTH-NORTH BEAR. (N-E)	NORTH-SOUTH TIME CORR.	NORTH-SOUTH LONG. CORR.	NORTH-SOUTH HT. (MI)	NORTH-SOUTH BEAR. (N-E)
JUNE 20, 1963										
1 19.6	137.15	47.4	28.0	-82.89	1042	90.0°	28.0	-82.93	1042	90.0°
3 14.6	166.25	45.0	22.6	-61.00	969	72.3°	33.6	-104.77	1104	107.7°
5 9.6	195.36	40.0	18.4	-45.77	907	60.7°	38.1	-119.93	1142	119.4°
7 4.7	224.46	35.0	15.4	-36.15	861	54.0°	41.5	-129.46	1162	126.1°
8 59.7	253.56	30.0	12.8	-28.80	823	49.4°	44.5	-136.71	1172	130.7°
10 54.8	282.66	20.0	8.2	-17.47	760	43.8°	49.9	-147.85	1176	136.5°
12 49.8	311.76	0.	0.	0.	675	40.0°	59.8	-164.91	1132	140.2°
14 44.8	340.86	-20.0	-8.0	17.52	641	43.8°	-46.0	148.84	1036	136.4°
16 39.9	9.96	-30.0	-12.3	28.93	647	49.5°	-40.9	137.61	970	130.6°
18 34.9	39.06	-35.0	-14.7	36.32	658	54.1°	-38.2	130.30	932	126.0°
20 29.9	68.17	-40.0	-17.5	46.01	676	60.8°	-35.1	120.69	888	119.3°
22 25.0	97.27	-45.0	-21.3	61.35	710	72.4°	-31.0	105.42	831	107.7°
		-47.4	-26.1	83.38	765	90.0°	-26.1	83.42	765	90.0°
JUNE 21, 1963										
0 20.0	126.37	47.4	27.9	-82.93	1029	90.0°	27.9	-82.97	1029	90.0°
2 15.0	155.47	45.0	22.5	-61.04	954	72.3°	33.4	-104.82	1095	107.7°
4 10.1	184.57	40.0	18.3	-45.80	891	60.7°	37.9	-119.98	1136	119.4°
6 5.1	213.67	35.0	15.3	-36.17	846	54.0°	41.3	-129.51	1158	126.1°
8 0.1	242.77	30.0	12.7	-28.82	808	49.5°	44.3	-136.76	1171	130.7°
9 56.2	271.87	20.0	8.1	-17.48	746	43.8°	49.7	-147.90	1179	136.5°
11 50.2	300.97	0.	0.	0.	665	40.0°	59.5	-164.96	1143	140.2°
13 45.2	330.07	-20.0	-7.9	17.52	638	43.8	-46.1	148.81	1050	136.4°
15 40.3	359.17	-30.0	-12.2	28.93	647	49.5	-41.0	137.59	986	130.6°
17 35.3	28.27	-35.0	-14.7	36.33	660	54.1°	-38.3	130.28	948	126.0°
19 30.3	57.37	-40.0	-17.4	46.02	680	60.8°	-35.2	120.67	903	119.3°
21 25.3	86.47	-45.0	-21.2	61.35	717	72.4°	-31.1	105.41	844	107.7°
23 20.4	115.57	-47.4	-26.1	83.38	775	90.0°	-26.1	83.42	775	90.0°
JUNE 22, 1963										
1 15.4	144.67	47.4	27.7	-82.98	1014	90.0°	27.7	-83.01	1015	90.0°
3 10.4	173.77	45.0	22.3	-61.07	937	72.3°	33.2	-104.87	1083	107.7°
5 5.5	202.86	40.0	18.2	-45.82	874	60.7°	37.7	-120.03	1128	119.4°
7 0.5	231.96	35.0	15.2	-36.19	829	54.0°	41.1	-129.57	1153	126.1°
9 55.5	261.06	30.0	12.6	-28.84	791	49.5°	44.1	-136.82	1169	130.7°
10 50.5	290.16	20.0	8.1	-17.49	731	43.8°	49.4	-147.96	1182	136.5°
12 45.6	319.26	0.	0.	0.	655	40.1	59.3	-165.01	1154	140.3°
14 40.6	348.36	-20.0	-7.9	17.53	635	43.8	-46.2	148.77	1066	136.4°
16 35.6	17.46	-30.0	-12.2	28.94	649	49.5	-41.2	137.56	1003	130.6°
18 30.6	46.56	-35.0	-14.6	36.33	663	54.1°	-38.4	130.26	964	126.0°
20 25.7	75.65	-40.0	-17.4	46.02	686	60.8°	-35.3	120.65	919	119.3°
22 20.7	104.75	-45.0	-21.2	61.36	726	72.4°	-31.1	105.40	859	107.7°
		-47.4	-26.1	83.38	788	90.0°	-26.1	83.41	788	90.0°

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 IOTA 1

REFERENCE TIME 1960 Y 6 M 0 D 1 H 17.66 M UT
INCLINATION 47.24 DEG.
ASCENDING NODE (LONG.) 85.26 DEG. WEST
PRIME SWEEP INTERVAL ONE DAY -16.93 MIN.
ARGUMENT OF PERIGEE 288.04 DEG.
RATE OF CHANGE 0.77039 DEG. PER PERIOD
ANOMALISTIC PERIOD 115.187 MIN.
RATE OF CHANGE -0.00046 MIN. PER PERIOD
ECCENTRICITY 0.04747
RADIUS OF PERIGEE 4641.1 MILES
RADIUS OF APOGEE 5103.7 MILES
RATE OF CHANGE -0.32 MILES PER DAY
ASCENDING NODE (R.A.) 189.69 DEG.
RATE OF CHANGE -3.29820 DEG. PER DAY
LATITUDE OF PERIGEE-44.27 DEG.
READ-IN EXPECTED MAG. 11