PROJECT 10073 RECORD CARD

1. DATE
1 Sep 63

2. LOCATION
43.20N 173.50W(pacific)

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
i n the general arez and it would be
visible. Case evaluated as ECHO I.

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

ATIC FORM 329 (REV 26 SEP 52)

NNNN

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

INCOMING

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

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 CØ44

ZCHQA574ZCECDØ78

OO RUEAHQ

DE RUHPF BØ48 Ø1/1616Z

ZNR

O Ø11615Z

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

RUAUAAH/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 XOPX, NIN and DIA-CIIC.
Xmitted to CIA

SMITHSONIAN ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS

AUGUST 28, 1963

SATELLITE 1960 IOTA 1, ECHO I

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°538 + 3°770 $(t-T_0)$
Right ascension of ascending node = 265°375 - 3°3180 $(t-T_0)$

Inclination = 47°2742
Eccentricity = 0.06495 + 1.95 x 10^{-4} $(t-T_0)$
Semi-major axis = 7.831413 megameters
Mean anomaly (Rev.) = 0.08811 + 12.525782 $(t-T_0)$ + 3.308 x 10^{-4} $(t-T_0)^2$

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)
AUGUST 31, 1963										
0 11.1	69.00	47.5	31.7	-81.95	1183	90.0*	31.7	-81.99	1182	90.0*
2 6.0	98.05	45.0	25.9	-60.01	1205	72.1*	37.5	-103.96	1134	107.8*
4 0.8	127.10	40.0	21.2	-44.97	1203	60.5*	42.0	-119.03	1081	119.4*
5 55.7	150.16	35.0	17.7	-35.48	1191	53.8*	45.3	-128.57	1036	126.1*
7 50.5	185.21	30.0	14.8	-28.25	1172	49.2*	48.1	-135.85	993	130.7*
9 45.3	214.28	20.0	9.5	-17.11	1124	43.5*	53.0	-147.08	913	136.4*
11 43.2	243.31	0.	0.	0.	1000	39.8*	61.6	-164.41	774	140.1*
13 35.0	272.37	-20.0	-5.9	17.24	859	43.7*	-45.2	149.07	668	136.2
15 29.8	301.42	-30.0	-13.6	28.54	787	49.4*	-40.8	137.68	632	130.5
17 24.7	330.47	-35.0	-18.1	35.89	750	54.0*	-38.5	130.30	619	126.0
19 19.5	359.52	-40.0	-19.0	45.53	712	60.7*	-35.7	120.62	611	119.3
21 14.3	28.57	-45.0	-22.8	60.79	670	72.2*	-32.1	105.33	612	107.8
23 9.2	57.62	-47.5	-27.4	83.04	631	90.0*	-27.5	83.08	631	90.0*
SEPTEMBER 1, 1963										
1 4.0	86.68	47.5	31.6	-81.98	1191	90.0*	31.6	-82.02	1191	90.0*
2 58.8	115.73	45.0	25.8	-60.03	1204	72.1*	37.5	-103.97	1148	107.8*
4 53.7	144.78	40.0	21.1	-45.07	1208	60.5*	42.0	-119.04	1098	119.4*
6 48.5	173.83	35.0	17.6	-35.50	1194	53.8*	45.3	-128.57	1054	126.1*
8 43.3	202.88	30.0	14.7	-28.27	1167	49.2*	48.1	-135.85	1013	130.7*
10 38.2	231.93	20.0	9.4	-17.13	1109	43.5*	53.1	-147.07	934	136.4*
12 34.0	260.98	0.	0.	0.	983	39.8*	61.7	-164.38	792	140.1*
14 27.8	290.03	-20.0	-5.9	17.26	832	43.7*	-45.0	149.11	679	136.2
16 22.7	319.08	-30.0	-13.5	28.57	769	49.4*	-40.7	137.73	637	130.5
18 17.5	348.13	-35.0	-18.0	35.92	733	54.0*	-38.3	130.35	624	126.0
20 12.3	17.19	-40.0	-18.8	45.57	697	60.7*	-35.5	120.67	613	119.3
22 7.2	46.24	-45.0	-22.6	60.84	658	72.2*	-31.9	105.38	610	107.8
		-47.5	-27.2	83.08	624	90.0	-27.3	83.13	624	90.0
SEPTEMBER 2, 1963										
0 2.0	75.29	47.5	31.5	-82.00	1192	90.0*	31.5	-82.04	1198	90.0*
1 56.8	104.34	45.0	25.6	-60.02	1206	72.1*	37.4	-103.99	1160	107.8*
3 51.6	133.39	40.0	21.0	-45.03	1199	60.5*	41.9	-119.06	1113	119.4*
5 46.5	162.44	35.0	17.5	-35.53	1177	53.8*	45.3	-128.58	1071	126.1*
7 41.3	191.49	30.0	14.6	-28.29	1152	49.2*	48.1	-135.85	1031	130.7*
9 36.1	220.54	20.0	9.3	-17.15	1095	43.5*	53.1	-147.08	952	136.4*
11 30.9	249.58	0.	0.	0.	981	39.8*	61.6	-164.40	807	140.1*
13 24.8	278.63	-20.0	-5.8	17.26	832	43.7*	-44.8	149.15	691	136.2*
15 19.7	307.68	-30.0	-13.4	28.60	775	49.4*	-40.5	137.77	647	130.5
17 14.4	336.73	-35.0	-18.0	35.95	739	54.0*	-38.1	130.39	629	126.0
19 9.2	5.78	-40.0	-18.7	45.61	699	60.7*	-35.4	120.72	616	119.3
21 4.1	34.83	-45.0	-22.4	60.90	661	72.2*	-31.7	105.43	609	107.8
23 [illegible]	63.88	-47.5	-27.1	83.11	626	90.0	-27.1	83.17	626	90.0
SEPTEMBER 3, 1963										
1 [illegible]	[illegible]	47.5	31.4	[illegible]	1204	90.0*	31.4	-82.07	1204	90.0*
3 [illegible]	142.98	45.0	25.5	-60.08	1207	72.1*	37.3	-104.02	1177	107.8*
5 [illegible]	172.03	40.0	20.9	-45.08	1191	60.5*	41.9	-119.08	1129	119.4*
7 [illegible]	[illegible]	35.0	17.4	[illegible]	1167	53.8*	45.2	-128.60	1087	126.1*
9 [illegible]	[illegible]	30.0	14.5	-28.[illegible]	1139	49.2*	48.1	-135.86	1050	130.7*
11 [illegible]	[illegible]	20.0	9.2	-17.[illegible]	1081	43.5*	53.1	[illegible]	[illegible]	[illegible]
13 [illegible]	[illegible]	0.	0.	0.	[illegible]	[illegible]	61.6	-164.34	848	[illegible]
15 [illegible]	[illegible]	-20.0	-5.8	[illegible]	[illegible]	[illegible]	-44.8	[illegible]	[illegible]	[illegible]
17 [illegible]	[illegible]	-30.0	-13.4	[illegible]	[illegible]	[illegible]	-40.5	[illegible]	[illegible]	[illegible]
19 [illegible]	[illegible]	-35.0	-18.0	[illegible]	[illegible]	[illegible]	-38.1	[illegible]	[illegible]	[illegible]
21 [illegible]	[illegible]	-40.0	-18.7	[illegible]	[illegible]	[illegible]	-35.4	[illegible]	[illegible]	[illegible]
23 [illegible]	[illegible]	-45.0	-22.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	-47.5	-27.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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)
SEPTEMBER 4, 1963										
1 47.4	110.58	47.5	31.3	-82.07	1208	90.0*	31.3	[illegible]	1208	90.0*
3 42.2	139.60	45.0	25.4	-60.13	1206	72.1*	37.2	[illegible]	1182	107.9*
5 37.0	168.65	40.0	20.7	-45.09	1183	60.5*	41.8	[illegible]	1144	119.4*
7 31.8	197.70	35.0	17.3	-35.59	1158	53.8*	45.1	[illegible]	1106	126.1*
9 26.6	226.74	30.0	14.4	-28.35	1127	49.2*	48.0	[illegible]	[illegible]	130.7*
11 21.5	255.79	20.0	9.2	-17.18	1061	43.6*	53.1	[illegible]	[illegible]	136.4*
13 16.3	284.84	0.	0.	0.	920	39.9*	62.0	[illegible]	[illegible]	[illegible]
15 11.1	313.89	-20.0	-5.7	17.32	781	43.7*	-44.6	[illegible]	[illegible]	[illegible]
17 5.9	342.93	-30.0	-13.2	28.65	717	49.4*	-40.2	[illegible]	687	[illegible]
19 0.7	11.98	-35.0	-15.6	36.02	687	54.0*	-37.8	[illegible]	[illegible]	[illegible]
20 55.5	41.03	-40.0	-18.4	45.88	658	60.7*	-35.0	[illegible]	629	119.3
22 50.3	70.07	-45.0	-22.1	60.96	626	72.2	-31.5	[illegible]	610	107.8
		-47.5	-26.7	83.22	609	90.0	-26.7	83.26	609	90.0
SEPTEMBER 5, 1963										
0 45.2	99.13	47.5	31.1	-82.10	1211	90.0*	31.2	-82.14	1211	90.0*
2 40.0	128.16	45.0	25.2	-60.16	1202	72.1*	37.0	-104.08	1191	107.9*
4 34.8	157.21	40.0	20.6	-45.12	1175	60.6*	41.7	-119.13	1158	119.4*
6 29.6	186.26	35.0	17.2	-35.62	1145	53.9*	45.0	-128.64	1121	126.1*
8 24.4	215.30	30.0	14.3	-28.37	1113	49.3*	47.9	-135.89	1085	130.7*
10 19.2	244.35	20.0	9.1	-17.20	1044	43.6*	53.0	-147.07	1011	136.4*
12 14.0	273.39	0.	0.	0.	901	39.9*	62.0	-164.31	-885	140.1*
14 8.8	302.44	-20.0	-5.6	17.33	764	43.7*	-44.5	149.24	733	136.3*
16 3.6	331.49	-30.0	-13.1	28.88	702	49.5*	-40.0	137.69	678	130.5*
17 58.4	0.53	-35.0	-15.5	36.05	674	54.0*	-37.6	130.51	653	126.0*
19 53.3	29.58	-40.0	-18.3	45.71	647	60.7*	-34.9	120.84	631	119.3
21 48.1	58.62	-45.0	-22.0	60.69	621	72.2	-31.2	105.56	612	107.8
23 42.9	87.67	-47.5	-26.6	83.25	606	90.0	-26.6	83.30	606	90.0
SEPTEMBER 6, 1963										
1 37.7	116.71	47.5	31.0	-82.14	1217	90.0*	31.0	-82.18	1217	90.0*
3 32.5	145.76	45.0	25.1	-60.20	1197	72.1*	36.9	[illegible]	1199	107.9*
5 27.3	174.80	40.0	20.5	-45.16	1165	60.6*	41.5	[illegible]	1168	119.4*
7 22.1	203.85	35.0	17.1	-35.65	1132	53.8*	[illegible]	[illegible]	1136	126.2*
9 16.9	232.89	30.0	14.2	-28.40	1097	49.3*	[illegible]	[illegible]	1102	130.7*
11 11.7	261.93	20.0	9.0	-17.[illegible]	1025	43.6*	53.0	-147.09	1031	136.4*
13 6.5	290.98	0.	0.	0.	890	39.9*	62.0	-164.31	896	140.1*
15 1.4	320.07	-20.0	[illegible]	[illegible]	765	[illegible]	-44.4	149.27	749	136.3*
16 56.1	349.07	-30.0	-13.0	28.[illegible]	681	[illegible]	-39.9	137.92	690	130.6*
18 50.9	[illegible]	-35.0	[illegible]	[illegible]	[illegible]	[illegible]	-37.5	130.5[illegible]	664	126.0*
20 45.7	[illegible]	-40.0	[illegible]	[illegible]	638	60.7	-34.7	120.93	638	119.3*
22 40.5	36.20	-45.0	[illegible]	[illegible]	[illegible]	72.2	-31.0	[illegible]	619	107.8
		-47.5	[illegible]	83.33	604	90.0	-26.5	83.38	604	90.0
SEPTEMBER 7, 1963										
0 35.3	[illegible]	[illegible]	[illegible]	[illegible]	1224	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2 30.1	[illegible]	45.0	[illegible]	[illegible]	1193	72.1*	[illegible]	[illegible]	[illegible]	[illegible]
4 24.9	163.33	40.0	[illegible]	[illegible]	1154	60.6*	[illegible]	[illegible]	[illegible]	[illegible]
6 19.7	[illegible]	35.0	[illegible]	[illegible]	1113	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8 14.5	[illegible]	30.0	[illegible]	[illegible]	1067	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10 9.3	[illegible]	20.0	[illegible]	[illegible]	966	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12 4.1	[illegible]	0.	[illegible]	[illegible]	819	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14 [illegible]	[illegible]	-20.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16 [illegible]	[illegible]	-30.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18 [illegible]	[illegible]	-35.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20 [illegible]	[illegible]	-40.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22 [illegible]	[illegible]	-45.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		-47.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]