

PROJECT 10073 RECORD CARD

1. DATE 4 July 1963	2. LOCATION 25.02N 127.15E (Far East)		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 04/1310Z	4. TYPE OF OBSERVATION ☒ Ground-Visual ☐ Ground-Radar ☐ Air-Visual ☐ Air-Intercept Radar		
5. PHOTOS ☐ Yes ☒ No	6. SOURCE military		
7. LENGTH OF OBSERVATION 11 min	8. NUMBER OF OBJECTS one	9. COURSE SE	
10. BRIEF SUMMARY OF SIGHTING Object observed at 04/1310Z bearing 320 deg at 10 deg elevation moving to position overhead at 04/1318Z. Disappeared suddenly at 04/1321Z bearing 108 deg 54 deg altitude. Had appearance of 1st mag star.		11. COMMENTS ECHO crossed Equator at 1234 heading NE at 7.98 W 26 min late it would reach peak of orbit and turn SE bringing the Satellite in position to be observed by the witness at 127.15E. Case evaluated as ECHO sighting.	

ATIC FORM 329 (REV 26 SEP 52)

04/13/02
NAVAL MESSAGE

UNCLASSIFIED

NAVY DEPARTMENT

PRECEDENCE
OPERATIONAL IMMEDIATE

RELEASED BY

DRAFTED BY

EXT. NO.

OPERATIONAL IMMEDIATE

01

AF IN : 26542 (4 Jul 63) G/crp

0 041415Z
FM USS COOK

AF DIST: NIN-9, XOP-1, XOPX-4, SAF-OS-3,
DIA-25, DIA-CIIC-2 (44)

TO RUAAUAK/5TH AF FCHPHAS JAPAN

INFO ZEN/CTF 76
RUATZAI/CTG 76.1
RUECW/CNO

RUATC/348 TACTIAL RECON SQ
RUATH/COMNAVFORJAPAN
RUHPB/CINCPACFLT

UNCLAS

UFO

A. CINCPACFLT INST 3820.3
B. MY 041215Z

1. SAME AS REF B.

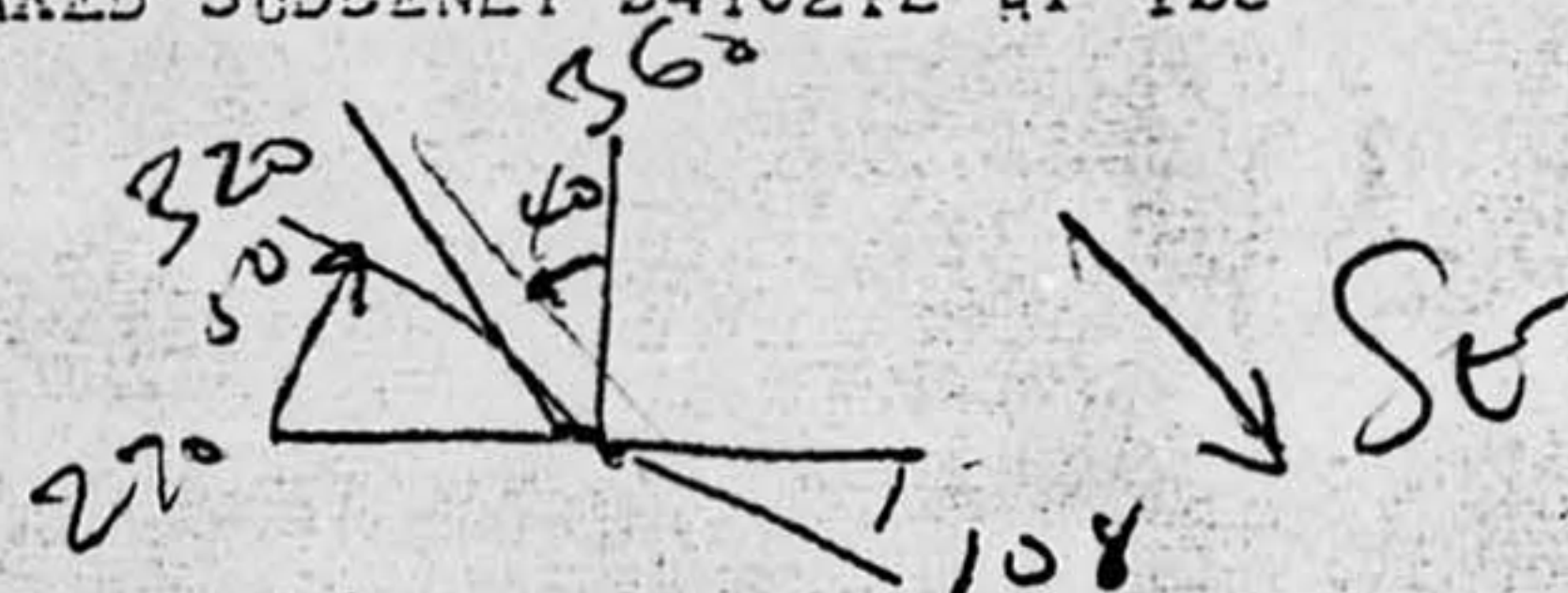
2. FIRST OBSERVED 041310Z 320 TRUE, ALT APT 10 DEG OVER HEAD 241318Z
245 TRUE, SEXTANT ALT 71 DEG. DISAPPEARED SUDDENLY 241321Z AT 108
TRUE, SEXTANT ALT 54.53

3. SAME AS REF B

4. PARA 2.

5. SHIP LOCATED 25 25.02N 127 15.0E

6. SAME AS REF B EXCEPT DELETE GADDY, SN, ADD J. E. WHITE, LCDR, XO/NAV
AGE 32, H. F. CAUDLE, BM1, BMOW, AGE 32. 7, 8, 9, SAME AS REF B 10
NO OTHER EVIDENCE.



12/34 7.98
40°N SE -120.1 118°E

92...COS

SECNAV..UNSECNAV..ASST SECNAV..(R&D)..03..09..09B..09M..09D..03..33..34
35..05..07..06..72..76..94..IP..NAVAIDE..FLAGPLOT..EFR..CMC..JCS..CSA
CSAF..CIA..NIC..COGARD

ADVANCE COPIES DELIVERED

CONTROL NO.	CIRCUIT NO.	PAGE	OF	PAGES	TIME OF RECEIPT	DATE TIME GROUP
52175/WB/YO/2	A 158	1		1	1657Z 04 JUL 63	041415Z JUL 63

UNCLASSIFIED

EQUATOR S-N			SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES							
TIME (UT)	LONG. (W)	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)
JUNE 30, 1963										
1 11.0	177.84	47.5	26.7	-83.21	883	90.0*	26.8	-83.26	883	90.0*
3 6.0	206.95	45.0	21.7	-61.09	813	72.2*	32.0	-105.34	955	107.8*
5 1.1	236.05	40.0	17.7	-45.86	764	60.7*	36.3	-120.48	1010	119.4*
6 56.2	265.17	35.0	14.8	-36.22	731	54.0	39.5	-130.03	1047	126.1*
8 51.2	279.20	30.0	12.4	-28.86	707	49.4	42.4	-137.30	1077	130.7*
0 46.3	323.39	20.0	8.0	-17.49	674	43.8	47.6	-148.46	1121	136.5
2 41.4	352.50	0.	0.	0.	655	40.0	57.3	-165.51	1161	140.3
4 36.5	21.62	-20.0	-8.0	17.48	691	43.8	-40.1	148.32	1161	136.5
6 31.5	50.73	-30.0	-12.4	28.84	731	49.4	-42.9	137.17	1105	130.7
8 26.6	79.84	-40.0	-14.9	36.20	759	54.0*	-40.0	129.91	1079	126.1*
0 21.7	103.95	-45.0	-17.8	45.83	796	60.7*	-36.7	120.37	1045	119.4*
2 16.8	138.06	-49.0	-21.8	61.04	849	72.2*	-32.4	105.25	993	107.8*
		-47.5	-27.0	83.14	921	90.0*	-27.0	83.19	921	90.0*
JULY 1, 1963										
0 11.3	167.17	47.5	26.6	-83.23	868	90.0*	26.7	-83.28	868	90.0*
2 6.9	196.28	45.0	21.6	-61.11	809	72.2*	31.9	-105.37	940	107.8*
4 2.0	225.39	40.0	17.7	-45.88	752	60.7*	36.1	-120.52	996	119.4*
6 57.0	254.50	35.0	14.8	-36.23	721	54.0	39.3	-130.07	1035	126.1*
8 52.1	268.53	30.0	12.3	-28.86	698	49.4	42.2	-137.34	1066	130.7*
0 47.2	332.72	20.0	8.0	-17.49	674	43.8	47.4	-148.51	1113	136.5
2 42.3	361.83	0.	0.	0.	655	40.0	57.1	-165.57	1149	140.3
4 37.4	17.94	-20.0	-8.0	17.48	691	43.8	-48.3	148.27	1149	136.5
6 32.4	46.05	-30.0	-12.4	28.84	741	49.4	-43.0	137.12	1116	130.7
8 27.5	75.16	-40.0	-14.9	36.20	771	54.0*	-40.1	129.87	1091	126.1*
0 22.6	104.27	-45.0	-17.8	45.83	809	60.7*	-36.9	120.33	1058	119.4*
2 17.6	128.38	-49.0	-21.8	61.04	863	72.2*	-32.5	105.21	1007	107.8*
4 12.7	157.49	-47.5	-27.0	83.14	936	90.0*	-27.1	83.16	936	90.0*
JULY 2, 1963										
0 7.8	211.71	47.5	26.5	-83.31	852	90.0*	26.6	-83.31	852	90.0*
2 3.9	240.82	45.0	21.5	-61.13	785	72.2*	31.7	-105.40	924	107.8*
4 53.0	272.93	40.0	17.6	-45.89	739	60.7*	36.0	-120.56	980	119.4*
6 48.0	302.04	35.0	14.8	-36.24	710	54.0	39.2	-130.12	1020	126.1*
8 43.1	331.15	30.0	12.3	-28.87	689	49.4	42.0	-137.39	1053	130.7*
0 38.2	0.26	20.0	8.0	-17.49	663	43.8	47.1	-148.57	1103	136.5
2 33.2	29.37	0.	0.	0.	657	40.0	56.8	-165.63	1158	140.3
4 28.3	58.48	-20.0	-8.0	17.48	705	43.8	-48.6	148.21	1154	136.5
6 23.4	87.59	-30.0	-12.4	28.83	752	49.4	-43.3	137.07	1126	130.7
8 18.4	116.70	-40.0	-14.9	36.19	783	54.0*	-40.3	129.82	1103	126.1
0 13.5	145.81	-45.0	-17.8	45.80	822	60.7*	-37.0	120.29	1072	119.4*
2 8.6	174.92	-49.0	-22.0	61.00	879	72.2*	-32.7	105.17	1023	107.8*
		-47.5	-27.2	83.09	952	90.0*	-27.3	83.13	952	90.0*
JULY 3, 1963										
0 8.6	174.92	47.5	26.5	-83.28	837	90.0*	26.5	-83.33	838	90.0*
2 3.6	204.02	45.0	21.5	-61.14	772	72.2*	31.6	-105.43	909	107.8*
4 58.7	233.13	40.0	17.6	-45.90	729	60.7*	35.8	-120.59	966	119.4*
6 53.8	262.24	35.0	14.8	-36.24	701	54.0	39.0	-130.16	1006	126.1*
8 48.9	291.35	30.0	12.3	-28.87	682	49.4	41.8	-137.44	1040	130.7*
0 43.9	320.46	20.0	8.0	-17.50	659	43.8	46.9	-148.62	1093	136.5
2 39.0	349.57	0.	0.	0.	659	40.0	56.6	-165.69	1156	140.3
4 34.0	14.68	-20.0	-8.1	17.47	713	43.7	-48.8	148.15	1159	136.5
6 29.1	43.79	-30.0	-12.5	28.82	763	49.4*	-43.5	137.02	1135	130.7
8 24.2	72.90	-40.0	-14.9	36.16	795	54.0*	-40.5	129.77	1114	126.1
0 19.2	102.01	-45.0	-17.8	45.78	836	60.7*	-37.2	120.24	1084	119.4
2 14.3	131.11	-49.0	-22.1	60.98	893	72.2*	-32.8	105.13	1037	107.8*
4 9.4	160.22	-47.5	-27.4	83.05	967	90.0*	-27.4	83.10	967	90.0*

EQUATOR S-N			SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES							
TIME (UT)	LONG. (W)	LAT.	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)	TIME CORR.	LONG. CORR.	HT. (MI)	BEAR. (N-E)
JULY 4, 1963										
1 4.4	193.33	47.5	26.4	-83.30	822	90.0*	26.4	-83.35	822	90.0
2 59.5	222.44	45.0	21.4	-61.15	759	72.2*	31.5	-105.46	892	107.8*
4 54.6	251.55	40.0	17.6	-45.90	717	60.7	35.7	-120.63	949	119.4*
6 49.6	280.66	35.0	14.7	-36.25	691	54.0	38.8	-130.20	991	126.1*
8 44.7	309.77	30.0	12.3	-28.98	674	49.5	41.6	-137.48	1026	130.7*
10 39.7	338.87	20.0	8.0	-17.50	655	43.8	46.7	-148.67	1082	136.5
12 34.8	7.98	0.	0.	0.	662	40.0	56.3	-165.75	1151	140.3
14 29.9	37.09	-20.0	-8.1	17.47	723	43.7	-49.0	148.09	1164	136.5
16 24.9	66.20	-30.0	-12.6	28.81	776	49.4*	-43.7	136.96	1144	130.8
18 20.0	95.31	-35.0	-15.1	36.15	809	54.0*	-40.7	129.72	1125	126.1
20 15.1	124.42	-40.0	-18.1	45.76	851	60.7*	-37.4	120.19	1097	119.4
22 10.1	153.52	-45.0	-22.2	60.95	909	72.2*	-33.0	105.09	1051	107.8*
		-47.5	-27.5	83.02	983	90.0*	-27.5	83.07	983	90.0*
JULY 5, 1963										
0 5.2	182.63	47.5	26.3	-83.32	808	90.0*	26.3	-83.37	808	90.0*
2 0.3	211.74	45.0	21.4	-61.16	747	72.2*	31.4	-105.49	877	107.8*
4 55.3	240.85	40.0	17.5	-45.91	707	60.7	35.5	-120.66	934	119.4*
6 50.4	269.96	35.0	14.7	-36.25	684	54.0	38.7	-130.24	976	126.1*
8 45.4	299.06	30.0	12.3	-28.98	668	49.5	41.5	-137.52	1012	130.7*
10 40.5	328.17	20.0	8.0	-17.50	652	43.8	46.5	-148.72	1070	136.5
12 35.5	357.28	0.	0.	0.	665	40.0	56.1	-165.80	1146	140.3
14 30.6	26.39	-20.0	-8.1	17.46	733	43.7	-49.2	148.04	1167	136.5
16 25.7	55.50	-30.0	-12.6	28.79	788	49.4*	-43.9	136.91	1151	130.8
18 20.7	84.60	-35.0	-15.2	36.13	822	54.0*	-40.9	129.66	1134	126.1
20 15.8	113.71	-40.0	-18.2	45.75	865	60.7*	-37.6	120.14	1109	119.4
22 10.9	142.82	-45.0	-22.3	60.93	924	72.2*	-33.1	105.05	1065	107.8*
23 5.9	171.93	-47.5	-27.6	82.98	998	90.0*	-27.6	83.03	998	90.0*
JULY 6, 1963										
1 1.0	201.04	47.5	26.2	-83.34	793	90.0*	26.2	-83.39	793	90.0*
2 56.0	230.14	45.0	21.3	-61.17	734	72.2*	31.3	-105.51	861	107.8*
4 51.1	259.25	40.0	17.5	-45.92	697	60.7	35.4	-120.70	918	119.4*
6 46.2	288.36	35.0	14.7	-36.26	676	54.0	38.5	-130.28	960	126.1*
8 41.2	317.46	30.0	12.3	-28.98	662	49.5	41.3	-137.57	997	130.7*
10 36.3	346.57	20.0	8.0	-17.49	650	43.8	46.3	-148.77	1057	136.5
12 31.3	15.68	0.	0.	0.	670	40.0	55.9	-165.86	1140	140.3
14 26.4	44.78	-20.0	-8.1	17.45	744	43.7	-49.5	147.98	1169	136.5
16 21.5	73.89	-30.0	-12.7	28.78	801	49.4*	-44.1	136.85	1158	130.8
18 16.5	103.00	-35.0	-15.3	36.12	837	54.0*	-41.2	129.61	1143	126.2
20 11.6	132.11	-40.0	-18.3	45.72	881	60.7*	-37.8	120.09	1120	119.4
22 6.6	161.21	-45.0	-22.4	60.90	941	72.2*	-33.3	105.00	1079	107.8*
		-47.5	-27.8	82.95	1014	90.0*	-27.8	83.00	1014	90.0*

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 IOTA 1

REFERENCE TIME 1963 Y 6 M 22 D 1-H 15.89 M UT
 INCLINATION 47.27 DEG.
 ASCENDING NODE (LONG.) 144.80 DEG. WEST
 PRIME SWEEP INTERVAL ONE DAY -16.94 MIN.
 ARGUMENT OF PERIGEE 336.51 DEG.
 RATE OF CHANGE 0.27848 DEG. PER PERIOD
 ANOMALISTIC PERIOD 115.172 MIN.
 RATE OF CHANGE -0.00018 MIN. PER PERIOD
 ECCENTRICITY 0.05051
 RADIUS OF PERIGEE 4625.9 MILES
 RADIUS OF APOGEE 5118.1 MILES
 RATE OF CHANGE -0.13 MILES PER DAY
 ASCENDING NODE (R.A.) 143.51 DEG.
 RATE OF CHANGE -3.30020 DEG. PER DAY
 LATITUDE OF PERIGEE -17.02 DEG.
 READ-IN EXPECTED MAG. +1