

PROJECT 10073 RECORD CARD

1. DATE 26 April 1963		2. LOCATION 27N 150W (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> ☐ Insufficient Data for Evaluation ☐ Unknown	
3. DATE-TIME GROUP Local _____ GMT 27/0613Z		4. TYPE OF OBSERVATION ☐ Ground-Visual ☐ Ground-Radar ☒ Air-Visual ☐ Air-Intercept Radar			
5. PHOTOS ☐ Yes ☒ No		6. SOURCE Civilian Northwest Airlines			
7. LENGTH OF OBSERVATION not reported		8. NUMBER OF OBJECTS one		9. COURSE south	
10. BRIEF SUMMARY OF SIGHTING Satellite like object in N to S orbit observed from airline flight 25. Speed and altitude of object unknown.				11. COMMENTS ECHO data not available . Object assumed orbital by observers. Case evaluated as satellite on limited data. on 26 April 1963 observed by AT 0617Z at 3644 W. Not in position for satellite check.	

SMB B186

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

A853KHD638

I N C O M I N G

OO RUEAHQ RUECW RUWGALB

DE RUHLKH 4

AF IN : 53210(27 Apr 63) S/wj

ZNR

INFO: NIN-9, XOP-1, XOPX-4, SAF-OS-3, DIA-25,
DIA/CIIC-2 (45)

O 270649Z

FM 326 AIR DIV KUNIA FACILITY HAWAII

TO RUHLKM/PACAF HICKAM AFB HAWAII

RUHPQ/COMHAWSEAFRON PEARL HARBOR

INFO RUEAHQ/CSAF USAF WASH DC

RUECW/SECNAV WASH DC

RUWGALB/CINCNOAD ENT AFB COLO

RUHPA/CINCPAC CAMP H M SMITH HAWAII

RUHAFS/CINCUSARPAC FT SHAFTER HAWAII

RUHPB/CINCPACFLT PEARL HARBOR HAWAII

RUECW/CNO WASH D C

RUUAZ/CIMUSJAPAN FUCHU AS JAPAN

RUAMCR/CIMUSKOREA SEOUL KOREA

RUAGFL/COMUSTDC TAIPEI TAIWAN

RUCSBR/CINCSAC OFFUTT AFB NEBR

RUHPD/COMASWFORPC FORD ISLAND HAWAII

BT

UNCLAS/HADOC-D Q REPORT

2. NORTHWEST 25
3. ONE SATELLITE LIKE OBJECT
4. 27 N 150W
5. 0613Z
6. ALTITUDE UNKNOWN
7. NORTH TO SOUTH ORBIT
8. SPEED UNKNOWN

BT

NOTE: Advance copies del to DIA AND NIN.

April, 1963: No argument on any of these except Case 23, which was very possibly Echo's since wrong date was used by Moody in looking up Echo. The zebra time is April 27, not April 26. At the time of observation, Echo was west 180 and north 20--more like west 178. From the air over the Pacific this would bring Echo within the limits of observation.

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES									
EQUATOR S-N					NORTH-SOUTH				
TIME	LONG.	LAT.	TIME	LONG.	MT.	REAR.	TIME	LONG.	MT.
(UT)	(W)		CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.	(MI)
APRIL 21, 1963									
1 20.4	241.19	47.4	28.8	-82.69	877	90.0	28.8	-82.73	877
2 16.0	270.37	45.0	23.7	-80.87	890	72.5	33.9	-104.55	867
3 11.4	299.56	40.0	19.6	-45.54	902	60.8	38.0	-119.88	861
4 6.7	328.74	35.0	16.5	-35.80	911	54.1	41.0	-129.54	859
5 2.1	357.93	30.0	13.9	-28.57	919	49.4	43.6	-136.89	858
10 57.5	27.11	20.0	9.0	-17.29	934	43.7	48.4	-148.21	860
12 52.9	54.29	0.	0.	0.	940	39.9	57.0	-165.57	876
14 48.2	85.49	-20.0	-9.1	17.25	980	43.7	-49.7	147.86	905
16 43.6	114.66	-30.0	-14.0	28.57	986	49.4	-44.9	136.57	923
18 39.0	143.85	-35.0	-16.8	35.83	987	54.0	-42.2	129.24	923
20 34.4	173.03	-40.0	-20.0	45.45	987	60.8	-39.1	119.61	945
22 29.7	202.22	-45.0	-24.3	60.73	993	72.4	-34.8	104.31	959
		-47.4	-29.6	82.50	974	90.0	-29.6	82.54	974
APRIL 22, 1963									
0 25.1	231.40	47.4	28.9	-82.67	880	90.0	28.9	-82.71	880
2 20.5	260.58	45.0	23.8	-80.85	894	72.5	34.0	-104.53	868
4 15.8	289.77	40.0	19.7	-45.53	907	60.8	38.1	-119.87	861
6 11.2	318.95	35.0	16.6	-35.89	917	54.0	41.1	-129.52	857
8 6.6	348.13	30.0	13.9	-28.56	925	49.4	43.7	-136.87	856
10 2.0	377.32	20.0	9.0	-17.27	941	43.7	48.4	-148.20	856
11 57.3	46.50	0.	0.	0.	966	39.9	57.1	-165.56	870
13 52.7	75.69	-20.0	-9.1	17.25	984	43.7	-49.7	147.87	898
15 48.1	104.87	-30.0	-14.1	28.51	988	49.4	-44.9	136.57	917
17 43.4	134.05	-35.0	-16.8	35.83	988	54.0	-42.2	129.24	927
19 38.8	163.24	-40.0	-20.0	45.44	987	60.8	-39.1	119.61	940
21 34.2	192.42	-45.0	-24.3	60.72	987	72.4	-34.9	104.31	955
23 29.6	221.60	-47.4	-29.6	82.49	971	90.0	-29.6	82.54	971
APRIL 23, 1963									
1 24.9	250.79	47.4	29.0	-82.65	884	90.0	29.0	-82.69	883
3 20.3	279.97	45.0	23.9	-80.84	899	72.5	34.1	-104.51	870
5 15.7	309.15	40.0	19.7	-45.52	913	60.8	38.2	-119.85	861
7 11.0	338.34	35.0	16.6	-35.88	924	54.0	41.2	-129.50	856
9 6.4	367.52	30.0	13.9	-28.55	933	49.4	43.8	-136.85	854
11 1.8	396.70	20.0	9.1	-17.26	948	43.7	48.5	-148.19	853
12 57.1	48.89	0.	0.	0.	972	39.9	57.1	-165.55	865
14 52.5	78.07	-20.0	-9.1	17.24	987	43.7	-49.7	147.88	891
16 47.9	107.25	-30.0	-14.1	28.50	990	49.4	-44.9	136.58	910
18 43.2	136.43	-35.0	-16.9	35.82	989	54.0	-42.2	129.24	920
20 38.6	165.62	-40.0	-20.0	45.43	987	60.8	-39.1	119.61	933
22 34.0	194.80	-45.0	-24.3	60.72	980	72.4	-34.9	104.31	949
		-47.4	-29.6	82.49	967	90.0	-29.6	82.53	967
APRIL 24, 1963									
0 29.3	240.98	47.4	29.0	-82.63	888	90.0	29.0	-82.67	888
2 24.7	270.16	45.0	23.9	-80.82	905	72.5	34.1	-104.49	872
4 20.1	299.35	40.0	19.8	-45.50	919	60.8	38.2	-119.83	862
6 15.4	328.53	35.0	16.7	-35.87	930	54.0	41.3	-129.48	856
8 10.8	357.71	30.0	14.0	-28.54	939	49.4	43.9	-136.83	853
10 6.2	386.89	20.0	9.1	-17.26	955	43.7	48.6	-148.16	850
12 1.5	416.08	0.	0.	0.	978	39.9	57.2	-165.53	858
13 56.9	50.26	-20.0	-9.2	17.24	990	43.7	-49.8	147.89	884
15 52.3	79.44	-30.0	-14.1	28.50	991	49.4	-44.9	136.58	903
17 47.6	108.62	-35.0	-16.9	35.81	989	54.0	-42.2	129.25	914
19 43.0	137.81	-40.0	-20.1	45.43	986	60.8	-39.1	119.61	927
21 38.4	167.00	-45.0	-24.3	60.71	977	72.4	-34.9	104.31	944
23 33.7	196.17	-47.4	-29.6	82.49	962	90.0	-29.6	82.53	962

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES									
EQUATOR S-N					NORTH-SOUTH				
TIME	LONG.	LAT.	TIME	LONG.	MT.	REAR.	TIME	LONG.	MT.
(UT)	(W)		CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.	(MI)
APRIL 25, 1963									
1 29.1	260.35	47.4	29.1	-82.61	893	90.0	29.1	-82.65	893
3 24.5	289.52	45.0	24.0	-80.80	911	72.5	34.2	-104.47	876
5 19.8	318.72	40.0	19.8	-45.49	927	60.8	38.3	-119.80	864
7 15.2	347.90	35.0	16.7	-35.86	938	54.0	41.3	-129.46	857
9 10.6	377.08	30.0	14.0	-28.53	947	49.4	44.0	-136.81	852
11 5.9	406.25	20.0	9.1	-17.25	962	43.7	48.7	-148.13	847
13 1.3	435.43	0.	0.	0.	983	39.9	57.3	-165.51	853
14 56.6	52.62	-20.0	-9.2	17.24	993	43.7	-49.6	147.90	877
16 52.0	81.81	-30.0	-14.1	28.49	991	49.4	-44.8	136.59	895
18 47.4	110.99	-35.0	-16.9	35.81	989	54.0	-42.1	129.25	904
20 42.7	140.17	-40.0	-20.1	45.42	983	60.8	-39.1	119.62	919
22 38.1	169.35	-45.0	-24.4	60.71	974	72.4	-34.0	104.31	937
		-47.4	-29.6	82.49	957	90.0	-29.6	82.53	957
APRIL 26, 1963									
0 33.5	250.53	47.4	29.2	-82.59	898	90.0	29.2	-82.63	898
2 28.9	279.71	45.0	24.1	-80.79	918	72.5	34.3	-104.45	879
4 24.2	308.89	40.0	19.9	-45.48	934	60.8	38.4	-119.78	866
6 19.5	338.08	35.0	16.8	-35.85	945	54.0	41.4	-129.43	858
8 14.9	367.26	30.0	14.0	-28.52	954	49.4	44.1	-136.78	852
10 10.3	396.44	20.0	9.1	-17.25	969	43.7	48.8	-148.11	846
12 5.6	425.62	0.	0.	0.	990	39.9	57.4	-165.49	848
14 1.0	454.80	-20.0	-9.2	17.23	994	43.7	-49.5	147.92	870
15 56.3	54.98	-30.0	-14.1	28.49	991	49.4	-44.8	136.61	888
17 51.7	84.16	-35.0	-16.9	35.81	987	54.0	-42.1	129.27	899
19 47.1	113.34	-40.0	-20.1	45.42	981	60.8	-39.0	119.63	912
21 42.4	142.52	-45.0	-24.4	60.71	969	72.4	-34.8	104.32	930
23 37.8	171.70	-47.4	-29.6	82.49	951	90.0	-29.6	82.53	951
APRIL 27, 1963									
1 33.1	269.88	47.4	29.3	-82.57	905	90.0	29.3	-82.61	905
3 28.5	299.07	45.0	24.1	-80.77	926	72.4	34.4	-104.42	884
5 23.8	328.25	40.0	19.9	-45.46	942	60.8	38.5	-119.75	870
7 19.2	357.43	35.0	16.8	-35.83	953	54.0	41.6	-129.40	860
9 14.6	386.61	30.0	14.1	-28.51	962	49.4	44.2	-136.76	853
11 9.9	415.79	20.0	9.2	-17.24	976	43.7	48.9	-148.08	845
13 5.3	444.97	0.	0.	0.	993	39.9	57.5	-165.47	844
15 0.6	474.15	-20.0	-9.2	17.23	995	43.7	-49.4	147.94	863
16 56.0	56.33	-30.0	-14.2	28.49	989	49.4	-44.7	136.62	880
18 51.4	85.51	-35.0	-16.9	35.80	984	54.0	-42.0	129.28	890
20 46.7	114.69	-40.0	-20.1	45.42	977	60.8	-39.0	119.64	904
22 42.1	143.87	-45.0	-24.3	60.71	964	72.4	-34.8	104.33	922
		-47.4	-29.6	82.49	944	90.0	-29.6	82.54	944

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 IOTA 1

REFERENCE TIME 1963 Y 4 M 13 D 1 H 29.29 M UT
 INCLINATION 47.20 DEG.
 ASCENDING NODE (LONG.) 209.34 DEG. WEST
 PERIOD 1.407191 DAY
 ARGUMENT OF PERIGEE 85.85 DEG.
 RATE OF CHANGE 0.45413 DEG. PER PERIOD
 ANOMALISTIC PERIOD 115.519 MIN.
 RATE OF CHANGE -0.00017 MIN. PER PERIOD
 ECCENTRICITY 0.00957
 RADIUS OF PERIGEE 4835.4 MILES
 RADIUS OF APOGEE 4929.1 MILES
 RATE OF CHANGE -0.12 MILES PER DAY
 ASCENDING NODE (RA) 13.34 DEG.
 RATE OF CHANGE -3.26940 DEG. PER DAY
 LATITUDE OF PERIGEE 47.04 DEG.