PROJECT 10073 RECORD CARD

1. DATE 13 March 1963	2. LOCATION 4.35N 176.41W (Pacific)	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
3. DATE-TIME GROUP Local _____ GMT 13/1645Z	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 East

10. BRIEF SUMMARY OF SIGHTING

CIRVIS report of small object with no visible sign of propulsion in flight from West to East. Appeared at 40 dgr elevation in West & sighting duration 5 minutes. Disappeared by fading. Object very high & speed very fast. Sighting from C-121.

11. COMMENTS

Direction wrong for satellite. Should be NE or SE since sighting near the equator. Duration consistent with satellite or a/c. since sighting was fm air, if object were a/c it would be at extreme altitude to prevent some feature from being identified. Insufficient data for evaluation. Possible error in direction, in which case object was ~~likely~~ Probably satellite. (Not Echo)

ATIC FORM 329 (REV 26 SEP 52)

3/1645Z

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

INCOMING

AF IN : 47156 (13 Mar 63) L/des

INFO : NIN-9, XOP-1, XOPX-4, SAFOS-3, ARMY-2, CMC-8, JCS-35, OSD-15, CIA-11, NSA-7, DIA-20, DIA/CIIC-2 (118)

D 270
DE RUHLKH 9
ZNR
U 131905Z
FM 326 AIR DIV KUNIA FACILITY HAWAII
TO RUHLKM/PWCAF HICKAM AFB HAWAII
RUKAC/COMALSEAFRON KODIAK ALASKA
RUWSPG/COMWESTSEAFRON SAN FRANCISCO CALIF
RUHPQ/COMHAWSEAFRON PEARL HARBOR HAWAII
INFO RUEAHQ/COFS USAF WASHINGTON DC
RUWGALB/CINCNORAD ENT AFB COLO
RUHPHQKCINCPAC CAMP H M SMITH HAWAII
RUHAFS/KINCUSARPAC FT SHAFTER HAWAII
RUHPB/CINCPACFLT PEARL HARBOR HAWAII
RUAUAZ/COMUSJAPAF FUCHU AS JAPAN
RUAMCR/COMUSKOREA SEOUL KOREA
RUAGFL/COMUSTDC TAIPEI TAIWAF
RUHPD/COMASWFORPAC FORD ISLAFD HAWAII
RUCSBR/CINCSAC OFFUTT AFB NEB
RUECW/CNO WASHINGTON DC
R ECW/SECNAV WASHINGTON DCN
AF GRNC
BT
EUNCLAS HADOC-D 0500C I R V I S

1. CIRVIS REPORT

2. C-121

3. SMALL OBJECT A. ONE OBJECT B. SIZE OF PIN, NO VISIBLE PROPULSION SIGHTED

4. APPEARED 40 DEGREES OVER WESTERN HORIZON 4.35N 176.41W

. 13/1645Z HELD FOR 5MIN., FADED AT 13/1650Z

6. VERY HIGH

7. WEST TO EAST

3. VERY FAST

9. NEGATIVE

BT
NOTE: ADVANCE COPY TO XOPX, NIN, DIA/CIIC.

SATELLITE 1960 IOTA 1

FOR EQUATOR CROSSINGS

EQUATOR S-N TIME (GCT)	LONG. (W)	LAT.	SOUTH-NORTH TIME CORR.	LONG. CORR.	ALT. (N MI)	INCL. (DEG)	NORTH-SOUTH TIME CORR.	LONG. CORR.	ALT. (N MI)	INCL. (DEG)

MARCH 10, 1963

1 24.3	83.72	47.4	29.0	-82.64	901	90.0*	29.0	-82.68	901	90.0*
3 17.8	97.32	45.0	23.9	-60.77	914	72.4	34.2	-104.54	889	107.6*
5 11.3	122.12	40.0	19.7	-45.49	924	60.8	38.3	-119.84	881	119.2*
7 10.6	151.32	35.0	16.6	-35.87	932	54.0	41.5	-129.48	876	126.0*
9 11.3	180.52	30.0	13.9	-28.54	938	49.4	44.0	-136.82	872	130.6*
11 1.5	208.72	20.0	9.0	-17.26	946	43.7	48.7	-148.15	865	136.3*
12 56.9	238.92	0.	0.	0.	955	39.9	57.5	-165.50	872	140.1
14 52.4	268.12	-20.0	-9.1	17.25	975	43.7*	-49.5	147.99	892	136.3
16 47.8	297.32	-30.0	-14.0	28.51	976	54.4*	-44.7	136.68	907	130.6
18 43.2	326.52	-35.0	-16.8	35.82	975	60.0*	-42.0	129.33	915	126.0
20 38.7	355.72	-40.0	-19.9	45.43	977	68.2*	-38.9	119.69	925	119.2
22 34.1	24.92	-45.0	-24.2	66.69	988	72.4*	-34.7	105.93	940	107.6
		-47.4	-29.4	82.53	995	90.0*	-29.5	82.57	950	90.0*

MARCH 11, 1963

0 29.6	54.12	47.4	29.0	-82.64	901	90.0*	29.0	-82.68	901	90.0*
2 25.0	83.32	45.0	23.9	-60.77	914	72.4	34.2	-104.54	889	107.6*
4 20.4	112.52	40.0	19.7	-45.49	924	60.8	38.3	-119.84	881	119.2*
6 15.9	141.71	35.0	16.6	-35.86	932	54.0	41.5	-129.48	876	126.0*
8 11.3	170.91	30.0	13.9	-28.54	938	49.4	44.0	-136.82	872	130.6*
10 6.7	200.11	20.0	9.0	-17.26	946	43.7	48.7	-148.15	865	136.3*
12 2.2	229.31	0.	0.	0.	954	39.9	57.5	-165.48	874	140.1
13 57.6	258.51	-20.0	-9.1	17.25	972	43.7*	-49.4	147.95	892	136.3
15 53.1	287.71	-30.0	-14.0	28.51	972	54.4*	-44.6	136.66	905	130.6
17 48.5	316.91	-35.0	-16.7	35.83	971	60.0*	-41.9	129.33	914	126.0
19 43.9	346.11	-40.0	-19.9	45.44	968	68.2*	-38.8	119.70	923	119.2
21 39.4	15.31	-45.0	-24.1	60.70	961	72.4*	-34.7	105.92	935	107.6
23 34.8	44.51	-47.4	-29.4	82.54	950	90.0*	-29.4	82.54	950	90.0*

MARCH 12, 1963

1 30.2	74.71	47.4	29.0	-82.63	905	90.0	29.1	-82.67	905	90.0
3 25.7	102.91	45.0	23.9	-60.77	918	72.4	34.2	-104.54	894	107.6*
5 21.1	132.11	40.0	19.7	-45.49	927	60.8	38.3	-119.83	885	119.2*
7 16.5	161.41	35.0	16.6	-35.86	934	54.0	41.4	-129.47	880	126.0*
9 12.0	190.51	30.0	13.9	-28.54	940	49.4	44.0	-136.81	877	130.6*
11 7.4	219.71	20.0	9.0	-17.26	949	43.7	48.8	-148.12	873	136.3*
13 2.9	248.91	0.	0.	0.	957	39.9*	57.5	-165.47	878	140.1
14 58.3	278.11	-20.0	-9.1	17.26	968	43.7*	-49.3	147.97	891	136.3
16 53.7	307.31	-30.0	-14.0	28.52	967	54.4*	-44.6	136.68	904	130.6
18 49.2	336.51	-35.0	-16.7	35.83	966	60.0*	-41.9	129.34	911	126.0
20 44.6	5.71	-40.0	-19.9	45.45	963	68.2*	-38.8	119.72	920	119.2
22 40.0	34.91	-45.0	-24.1	60.71	957	72.4*	-34.6	106.44	932	107.6
		-47.4	-29.4	82.55	946	90.0	-29.4	82.59	946	90.0

MARCH 13, 1963

0 35.5	64.12	47.4	29.1	-82.63	909	90.0	29.1	-82.67	909	90.0
2 30.9	93.32	45.0	23.9	-60.77	921	72.4	34.2	-104.53	898	107.6*
4 26.4	122.52	40.0	19.7	-45.49	929	60.8	38.4	-119.83	890	119.2*
6 21.8	151.72	35.0	16.6	-35.86	936	54.0	41.4	-129.46	885	126.0*
8 17.2	180.92	30.0	13.9	-28.54	941	49.4	44.1	-136.80	881	130.6*
10 12.7	210.12	20.0	9.0	-17.27	949	43.7	48.8	-148.11	877	136.3*
12 8.1	239.32	0.	0.	0.	959	39.9*	57.5	-165.45	878	140.1*
14 3.6	268.52	-20.0	-9.0	17.26	964	43.7*	-49.3	147.99	892	136.3
15 59.0	297.72	-30.0	-14.0	28.52	963	54.4*	-44.5	136.69	905	130.6
17 54.4	326.92	-35.0	-16.7	35.84	961	54.6*	-41.8	129.36	910	126.0
19 49.9	356.12	-40.0	-19.8	45.45	958	60.7*	-38.7	119.73	918	119.2
21 45.3	25.32	-45.0	-24.1	60.72	952	72.4*	-34.5	104.45	929	107.6
23 40.7	54.52	-47.4	-29.3	82.56	942	90.0	-29.3	82.61	942	90.0

SATELLITE 1960 IOTA 1

FOR EQUATOR CROSSINGS

EQUATOR S-N TIME (GCT)	LONG. (W)	LAT.	SOUTH-NORTH TIME CORR.	LONG. CORR.	ALT. (N MI)	INCL. (DEG)	NORTH-SOUTH TIME CORR.	LONG. CORR.	ALT. (N MI)	INCL. (DEG)

MARCH 14, 1963

1 36.2	84.72	47.4	29.1	-82.63	913	90.0	29.1	-82.67	913	90.0
3 31.6	113.92	45.0	23.9	-60.77	926	72.4	34.2	-104.53	896	107.6*
5 27.1	143.12	40.0	19.7	-45.49	935	60.7	38.4	-119.82	887	119.2*
7 22.5	172.32	35.0	16.6	-35.87	942	54.0	41.4	-129.45	884	126.0*
9 17.9	201.52	30.0	13.9	-28.54	947	49.4	44.1	-136.79	880	130.6*
11 13.4	230.72	20.0	9.0	-17.27	958	43.7	48.7	-148.12	871	136.3*
13 8.8	259.92	0.	0.	0.	967	39.9*	57.5	-165.46	878	140.1*
15 4.3	289.12	-20.0	-9.0	17.26	980	43.7*	-49.3	147.99	892	136.3
16 59.7	318.32	-30.0	-14.0	28.53	979	54.4*	-44.6	136.71	907	130.6
18 55.1	346.52	-35.0	-16.7	35.85	977	60.0*	-41.8	129.37	915	126.0
20 50.6	15.72	-40.0	-19.8	45.46	974	68.2*	-38.7	119.73	926	119.2
22 46.0	44.93	-45.0	-24.0	60.73	968	72.4*	-34.5	105.93	937	107.6
		-47.4	-29.3	82.56	958	90.0	-29.3	82.62	948	90.0

MARCH 15, 1963

0 41.5	74.13	47.4	29.1	-82.62	916	90.0	29.1	-82.67	916	90.0
2 36.9	103.33	45.0	23.9	-60.77	926	72.4	34.3	-104.52	896	107.6*
4 32.3	132.53	40.0	19.7	-45.49	933	60.7	38.4	-119.82	887	119.2*
6 27.8	161.73	35.0	16.6	-35.87	938	54.0	41.5	-129.45	884	126.0*
8 23.2	190.93	30.0	13.9	-28.54	941	49.4	44.1	-136.79	880	130.6*
10 18.7	220.13	20.0	9.0	-17.27	947	43.7	48.9	-148.09	885	136.3*
12 14.1	249.33	0.	0.	0.	956	39.9*	57.6	-165.42	884	140.1*
14 9.5	278.53	-20.0	-9.0	17.26	956	43.7*	-49.2	148.02	894	136.3
16 5.0	307.73	-30.0	-13.9	28.53	954	54.4*	-44.4	136.72	909	130.6
18 0.4	336.93	-35.0	-16.6	35.85	953	60.0*	-41.7	129.37	918	126.0
19 55.9	6.13	-40.0	-19.8	45.47	950	68.2*	-38.6	119.74	929	119.2
21 51.3	35.33	-45.0	-24.0	60.74	944	72.4*	-34.4	105.94	940	107.6
23 46.7	64.54	-47.4	-29.2	82.59	935	90.0	-29.2	82.64	935	90.0

MARCH 16, 1963

1 42.2	93.74	-47.4	29.1	-82.63	919	90.0	29.1	-82.67	919	90.0
3 37.6	122.94	45.0	23.9	-60.77	928	72.4	34.3	-104.52	900	107.6*
5 33.1	152.14	40.0	19.7	-45.49	934	60.7	38.4	-119.81	893	119.2*
7 28.5	181.34	35.0	16.6	-35.87	938	54.0	41.5	-129.44	890	126.0*
9 23.9	210.54	30.0	13.9	-28.55	941	49.4	44.1	-136.78	886	130.6*
11 19.4	239.74	20.0	9.0	-17.27	948	43.7	48.9	-148.08	889	136.3*
13 14.8	268.94	0.	0.	0.	957	39.9*	57.7	-165.41	897	140.1*
15 10.3	298.14	-20.0	-9.0	17.27	962	43.7*	-49.1	148.05	895	136.3
17 5.7	327.34	-30.0	-13.9	28.54	959	54.4*	-44.3	136.74	910	130.6
17 1.2	356.55	-35.0	-16.6	35.86	958	60.0*	-41.6	129.40	918	126.0
20 56.6	25.75	-40.0	-19.7	45.48	956	68.2*	-38.6	119.77	929	119.2
22 52.0	54.95	-45.0	-24.0	60.75	951	72.4*	-34.4	105.99	939	107.6
		-47.4	-29.2	82.60	942	90.0	-29.2	82.65	942	90.0

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 IOTA 1

REFERENCE TIME 1963 Y 3 M 2 D 1 H 39.39 M UT
INCLINATION 47.22 DEG.
ASCENDING NODE (LONG.) 33.53 DEG. WEST
PRIME SWEEP INTERVAL ONE DAY -16.80 MIN.
ARGUMENT OF PERIGEE 121.10 DEG.
RATE OF CHANGE 0.27043 DEG. PER PERIOD
ANOMALISTIC PERIOD 115.519 MIN.
RATE OF CHANGE 0.00005 MIN. PER PERIOD
ECCENTRICITY 0.01732
RADIUS OF PERIGEE 4797.2 MILES
RADIUS OF APOGEE 4966.4 MILES
RATE OF CHANGE 0.04 MILES PER DAY
ASCENDING NODE (R.A.) 150.29 DEG.
RATE OF CHANGE -3.26440 DEG. PER DAY
LATITUDE OF PERIGEE 38.94 DEG.