PROJECT 10073 RECORD CARD

1. DATE
15 April 1963

2. LOCATION
24.43 166.23W (Pacific)

3. DATE-TIME GROUP
Local
GMT 16/0630Z

4. TYPE OF OBSERVATION
☒ Ground-Visual ☐ Ground-Radar
☐ Air-Visual ☐ Air-Intercept Radar

5. PHOTOS
☐ Yes
☒ No

6. SOURCE
Civilian

7. LENGTH OF OBSERVATION
not reported

8. NUMBER OF OBJECTS
one

9. COURSE
east

10. BRIEF SUMMARY OF SIGHTING
MERINT report of glowing object moving East very fast. No identification. Resembled a bright star. Estimated altitude 20,000 ft.

11. COMMENTS
Possibility of meteor and possibility of object being a/c. Duration not reported. No evaluation without duration. Case listed as insufficient data. ECHO NOT IN AREA

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)

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

INCOMING

AF IN : 35462 (16 Apr 63) C/doc   Page 1 of 2

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

01

SMB C150

ZCZCPH0082V

''''''YY RUEAHQ

ZFD RUHPH

PHC A071

''''''YY RUEAHQ RUECW

DE RUHPHC 018S

ZNR

Y 161010Z

BH

UNCLAS SVC

ZUI RUEK 09S/ZII2 16/0951Z. (NOTAL) ZDK RUHPHC 031/160903Z

Y 160903Z

FM COMHAWSEAFRON

TO RUAUAAH/COMD HADD KUNIA

INFO RUHPB/CINCPACFLT

RUWGALB/CINC NORAD ENT AFB, COLO

RUEAHQ/COFSUSAF WASHDC

RUECW/CNO

RUECW/SECNAV

RUHAFS/CINCUSARPAC

RUHPA/CINCPAC

RUHLKSA/PACAF BASE COM, HICKAM AFB

NAVY GRNC

AT 16/0630Z
ECHO

0557 290.0
285 – 82.7
0625
217

47N°
217° W at 0625

NOT IN PARK

BT

UNCLAS

MERINT

FOLLOWING RECM FM USNS COSSATOT/TAO 77, QUOTE: MERINT USNS COSSATOT TAO 77. LAT 24-43N LONG 166-23W 160630Z. SIGHTED GLOWING OBJECT ALTITUDE 20 DEG COURSE EAST VERY FAST. NO IDENTIFICATION RESEMBLE BRIGHT STAR UNQUOTE

BT

16/0904Z

BH

16/1010Z

NOTE: ADVANCE COPY TO DIA, NIN & XOPX.

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

AF IN: 35476 (16 Apr 63) INCOMING Page I of 2

INFO: NIN-9, XOP-1, XOFX-4, SAF-OS-3, ARMY-2, CMC-8, JCS-35,
DIA-20, DIA/CIIC-2, OSD-15, NSA-7, CIA-11

(118)

01

SMB A 166
WWYZCQJA104
OO RUEAHQ
ZNR ZFH1
SU198ZCKSA003
OO RUHLKM RUHPQ RUEAHQ RUECW RUWGALB RUHPA RUTAFS RUHPB RUAUAZ
DE RUHLKH 5
ZNR
O 160900Z
FM 326 AIR DIV KUNIA FACILITY HAWAII
TO RUHLKM/PACAF HICKAM AFB HAWAII
RUHPQ/COMHAWSEAFRON PEARL HARBOR HAWAII
INFO: RUEAHQ/CSAD USAF WASH DC
RUECW/CNO WASH DC
RUECW/ SECNAV WASH DC
RUWGALB/CINCNORAD ENT AFB COLO

RUHPA/CINCPAC CAMP H M SMITH HAWAII
RUHAFS/CINCUSARPAC FT SHADTER HAWAII
RUHPB/CINCPACFLT PEARL HARBOR HAWAII
RUAUAZ/COMUSJAPAN FUCHU AS JAPAN/
RUAMCR/COMUSKOREA SEOUL KOREA
RUAGFL/COMUSTDC TAIPEI TAIWAN
RUCSBR/CINCSAC OFFUTT AFB NEBR
BT
UNCLAS/HADOC-D 0710

CURVIS/ USNS COSSATOT TA 77 REPORTS POSITION 24 DEGREES 43 MIN NORTH 166 DEGCEES 22 MIN 2. AT 160630. SIGHTED GLOWINGOBJECT 20 DEGREES ABOVE HORIZON, TRAVELING TO THE EAST VERY FAST. RESEMBLED BRIGHT STAR. NO EVALUATION.

BT
16/0910Z APR RUHLKH

NOTE: ADVANCE COPY TO: XOPX, NIN & DIA

SMITHSONIAN ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS

APRIL 10, 1963

SATELLITE 1960 IOTA 1, ECHO 1

These predictions are based on orbital elements revised on April 3, 1963
T_o = April 9.0, times are in days, U.T.
Argument of perigee = 62°.66 + 3°.64 $(t-T_o)$
Right ascension of ascending node = 26°.618 − 1°.2694 $(t-T_o)$
Expected average magnitude = + 1

Inclination = 47°.2050
Eccentricity = $0.00775 + 4.42 \times 10^{-6} (t-T_o)$
Semi-major axis = 7.857951 megameters
Mean anomaly (Rev.) = $0.3758 + 12.46238 (t-T_o) + 1.158 \times 10^{-4} (t-T_o)^2$

SATELLITE 1960 IOTA 1

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)
				APRIL 13, 1963						
1 [illegible]	202.47	47.4	28.5	-82.77	880	90.0*	28.5	-82.81	880	90.0*
2 57.5	231.66	45.0	23.4	-60.95	880	72.5*	33.6	-104.63	882	107.5*
4 52.9	260.85	40.0	19.3	-45.62	882	60.8	37.7	-119.95	885	119.2*
6 48.3	290.04	35.0	16.3	-35.97	885	54.1	40.8	-129.60	889	125.9*
8 43.7	319.23	30.0	13.6	-28.62	888	49.5	43.4	-136.94	893	130.5
10 39.1	348.42	20.0	8.9	-17.32	896	43.7	48.2	-148.24	902	136.3
12 34.5	17.61	0.	0.	0.	915	39.9	57.1	-165.56	922	140.1
14 29.9	46.80	-20.0	-8.9	17.29	935	43.7	-49.6	147.91	944	136.3
16 25.3	75.99	-30.0	-13.8	28.58	951	49.4*	-44.7	136.63	956	130.6
18 20.7	105.17	-35.0	-16.5	35.90	957	54.0*	-41.9	129.31	962	126.0
20 16.1	134.36	-40.0	-19.7	45.53	963	60.8*	-38.8	119.69	967	119.2
22 11.5	163.55	-45.0	-23.5	60.82	969	72.4*	-34.5	104.40	971	107.6*
		-47.4	-29.2	82.59	973	90.0*	-29.2	82.63	973	90.0*
				APRIL 14, 1963						
0 6.8	192.74	47.4	28.5	-82.76	877	90.0*	28.5	-82.81	877	90.0*
2 2.2	221.93	45.0	23.4	-60.94	879	72.5*	33.6	-104.63	[illegible]	107.5*
3 57.6	251.12	40.0	19.3	-45.61	882	60.8	37.7	-119.95	881	[illegible]
5 53.0	280.31	35.0	16.3	-35.96	886	54.1	40.8	-129.60	885	125.9*
7 48.4	309.50	30.0	13.6	-28.62	890	49.5	43.4	-136.94	[illegible]	130.5*
9 43.8	338.69	20.0	8.9	-17.31	899	43.7	48.2	-148.25	[illegible]	136.3
11 39.2	7.88	0.	0.	0.	920	39.9	57.0	-165.57	[illegible]	140.1
13 34.6	37.07	-20.0	-9.0	17.29	944	43.7	-49.6	147.90	[illegible]	136.3
15 30.0	66.25	-30.0	-13.8	28.57	956	49.4*	-44.7	136.62	[illegible]	130.6
17 25.4	95.44	-35.0	-16.6	35.89	962	54.0*	-42.0	129.30	[illegible]	126.0
19 20.8	124.63	-40.0	-19.7	45.52	967	60.8*	-38.5	119.68	967	119.2
21 16.2	153.82	-45.0	-23.6	60.81	973	72.4*	-34.6	104.39	[illegible]	107.6*
23 11.6	183.01	-47.4	-29.3	82.58	975	90.0*	-29.3	82.63	[illegible]	90.0*
				APRIL 15, 1963						
1 [illegible]	212.70	47.4	28.5	-82.76	876	90.0*	28.5	-82.80	876	90.0*
3 2.3	241.89	45.0	23.5	-60.93	879	72.5*	33.6	-104.62	877	107.5*
4 57.7	[illegible]	40.0	19.4	-45.60	883	60.8	37.7	-119.95	[illegible]	[illegible]
6 53.1	[illegible]	35.0	16.3	-35.98	888	54.1	40.8	-129.60	[illegible]	[illegible]
8 48.5	[illegible]	30.0	13.7	-28.61	[illegible]	49.5	43.4	-136.44	[illegible]	[illegible]
10 [illegible]	[illegible]	[illegible]	[illegible]	-17.31	[illegible]	[illegible]	48.2	-148.25	[illegible]	[illegible]
12 [illegible]	[illegible]	[illegible]	[illegible]	0.	[illegible]	[illegible]	[illegible]	-165.58	[illegible]	[illegible]
14 [illegible]	[illegible]	[illegible]	[illegible]	17.28	949	[illegible]	[illegible]	147.89	[illegible]	[illegible]
16 [illegible]	[illegible]	[illegible]	-13.8	28.56	961	49.4*	[illegible]	[illegible]	[illegible]	[illegible]
18 [illegible]	116.[illegible]	[illegible]	-16.6	35.88	967	54.0*	[illegible]	129.29	[illegible]	[illegible]
20 20.8	[illegible]	[illegible]	-19.8	[illegible]	[illegible]	[illegible]	[illegible]	119.66	[illegible]	[illegible]
22 16.2	[illegible]	[illegible]	[illegible]	60.79	[illegible]	[illegible]	[illegible]	104.37	[illegible]	[illegible]
		-47.4	-29.3	82.58	977	90.0*	-29.3	82.61	[illegible]	[illegible]
				APRIL 16, 1963						
[illegible]	[illegible]	[illegible]	28.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	90.0*
[illegible]	[illegible]	45.0	23.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	19.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	35.0	16.3	[illegible]	[illegible]	54.1	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	30.0	13.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	20.0	8.9	-17.30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.	0.	[illegible]	[illegible]	[illegible]	-165.59	[illegible]	[illegible]
[illegible]	[illegible]	-20.0	[illegible]	17.26	[illegible]	[illegible]	[illegible]	147.86	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	-47.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SATELLITE 1960 IOTA 1

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)
				APRIL 17, 1963						
1 11.6	221.89	47.4	28.6	-82.74	873	90.0*	28.6	-82.78	873	90.0*
3 7.0	251.08	45.0	23.5	-60.92	880	72.5	33.7	-104.61	870	107.5*
5 2.4	280.27	40.0	19.4	-45.59	887	60.8	37.8	[illegible]	870	[illegible]
6 57.8	309.45	35.0	16.4	-35.94	893	54.1	40.8	-129.59	871	125.9*
8 53.2	338.64	30.0	13.7	-28.60	899	49.5	43.5	-136.93	873	130.5*
10 48.5	7.83	20.0	8.9	-17.30	911	43.7	48.2	-148.25	880	136.3
12 43.9	37.01	0.	0.	0.	936	39.9	57.0	-165.59	901	140.1
14 39.3	66.20	-20.0	-9.0	17.27	960	43.7	-49.7	147.87	929	136.3
16 34.7	95.39	-30.0	-13.9	28.55	970	49.4*	-44.8	136.59	945	130.6
18 30.1	124.58	-35.0	-16.7	35.87	975	54.0*	-42.1	129.26	953	126.0
20 25.5	153.76	-40.0	-19.8	45.48	979	60.8*	-39.0	119.64	961	119.2
22 20.8	182.95	-45.0	-24.1	60.77	981	72.4*	-34.7	104.35	971	107.6
		-47.4	-29.4	82.54	975	90.0*	-29.4	82.58	975	90.0*
				APRIL 18, 1963						
0 16.2	212.14	47.4	28.7	-82.73	873	90.0*	28.7	-82.77	873	90.0*
2 11.6	241.32	45.0	23.6	-60.91	881	72.5	33.7	-104.60	868	107.5*
4 7.0	270.51	40.0	19.5	-45.58	889	60.8	37.8	-119.93	862	119.2*
6 2.4	299.69	35.0	16.4	-35.93	896	54.1	40.9	-129.58	868	125.9*
7 57.8	328.88	30.0	13.7	-28.59	903	49.5	43.5	-136.93	869	130.5*
9 53.1	358.07	20.0	8.9	-17.29	916	43.7	48.2	[illegible]	875	136.3
11 48.5	27.25	0.	0.	0.	941	39.9	57.0	[illegible]	[illegible]	140.1
13 43.9	56.44	-20.0	-9.0	17.27	965	43.7*	-49.7	147.86	926	136.3
15 39.3	85.63	-30.0	-14.0	28.54	975	49.4*	-44.9	136.56	940	130.6
17 34.7	114.81	-35.0	-16.7	35.86	979	54.0*	-42.2	129.25	949	126.0
19 30.0	144.00	-40.0	-19.9	45.48	981	60.8*	-39.0	119.63	958	119.2
21 25.4	173.18	-45.0	-24.2	60.76	982	72.4*	-34.8	104.34	969	107.6
23 [illegible]	[illegible]	-47.4	-29.4	82.53	978	90.0*	-29.5	82.57	978	[illegible]
				APRIL 19, 1963						
1 16.2	[illegible]	47.4	28.7	-82.72	874	90.0*	28.7	[illegible]	[illegible]	[illegible]
3 11.6	[illegible]	45.0	23.6	-60.85	884	72.5	[illegible]	[illegible]	[illegible]	[illegible]
5 [illegible]	[illegible]	40.0	19.5	-45.57	893	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 [illegible]	[illegible]	35.0	16.5	-35.92	901	54.1	[illegible]	[illegible]	[illegible]	[illegible]
8 [illegible]	[illegible]	30.0	13.8	-28.58	[illegible]	49.5	[illegible]	[illegible]	[illegible]	[illegible]
10 [illegible]	17.49	[illegible]	[illegible]	-17.28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12 [illegible]	[illegible]	[illegible]	0.	0.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14 [illegible]	[illegible]	[illegible]	-9.1	17.26	970	43.7*	[illegible]	[illegible]	[illegible]	[illegible]
16 [illegible]	[illegible]	[illegible]	[illegible]	28.53	975	49.4*	[illegible]	[illegible]	[illegible]	[illegible]
18 [illegible]	[illegible]	[illegible]	-16.7	35.85	[illegible]	54.0*	[illegible]	[illegible]	[illegible]	[illegible]
20 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	985	60.8*	[illegible]	[illegible]	[illegible]	[illegible]
22 [illegible]	[illegible]	[illegible]	-24.2	60.75	983	72.4*	[illegible]	[illegible]	[illegible]	[illegible]
		-47.4	29.5	82.52	976	90.0*	-29.5	[illegible]	[illegible]	[illegible]
				APRIL 20, 1963						
[illegible]	[illegible]	47.4	28.8	-82.70	875	90.0*	28.8	-82.74	875	[illegible]
[illegible]	[illegible]	45.0	23.7	-60.88	885	72.5	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	40.0	19.6	-45.56	897	60.8	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	35.0	16.5	-35.91	905	54.1	[illegible]	[illegible]	861	[illegible]
[illegible]	[illegible]	30.0	13.8	-28.57	913	49.4	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	20.0	9.0	-17.28	924	43.7	48.3	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	0.	0.	954	39.9	[illegible]	[illegible]	882	[illegible]
[illegible]	[illegible]	[illegible]	-9.1	17.26	975	43.7*	-49.7	[illegible]	911	[illegible]
[illegible]	[illegible]	[illegible]	-14.0	28.52	982	49.4*	-44.9	136.57	920	130.6
[illegible]	[illegible]	[illegible]	-16.8	35.84	985	54.0*	[illegible]	129.24	[illegible]	126.0
[illegible]	[illegible]	[illegible]	-20.0	45.44	986	60.8*	-39.1	119.61	950	119.2
[illegible]	[illegible]	[illegible]	[illegible]	60.74	984	72.4*	[illegible]	104.32	964	107.6
[illegible]	[illegible]	-47.4	-29.5	82.51	976	90.0*	-29.5	82.55	976	90.0*