

PROJECT 10073 RECORD CARD

1. DATE 11 April 1963	2. LOCATION 02.N 168.37W (Pacific)		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon
3. DATE-TIME GROUP Local _____ GMT 11/1620Z	4. TYPE OF OBSERVATION ☐ Ground-Visual ☐ Ground-Radar ☒ Air-Visual ☐ Air-Intercept Radar		☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft
5. PHOTOS ☐ Yes ☒ No	6. SOURCE Civilian Airline Quantas		☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical
7. LENGTH OF OBSERVATION not reported	8. NUMBER OF OBJECTS one	9. COURSE not reported	☒ Other <u>satellite</u> ☐ Insufficient Data for Evaluation ☐ Unknown
10. BRIEF SUMMARY OF SIGHTING CIRVIS report of object that appeared to be a satellite observed at 20 dgr elevation bearing 260 dgr magnetic from reporting a/c.		11. COMMENTS Only that object resembling satellite was reported. ECHO data not available, object assumed to be satellite. ECHO (CROSS) EQUATOR AT 1601Z AT 60° 37'. NOT VISIBLE	

DEPARTMENT OF THE AIR FORCE

STAFF MESSAGE BRANCH

UNCLASSIFIED MESSAGE

Pg 1 of 2

AF IN: 29563 (11 Apr 63) G/eld

INFO : NIN-9, XOP-1, XOPX-4, SAF OS-3, ARMY 12, OSD-15, JCS-35, DIA-20,
DIA-CIIC-2, NSA-7, CIA-11, CMC-8 (118)

SMB B 189

CN 62

OO RUEAHQ

DE RUHLKH 12

O 111735Z

FM 326 AIR DIV KUNIA FACILITY HAWAII

TO RUHLKM/PACAF HICKAM AFB HAWAII

RUHPHH/COMHAWSEAFRON PERAL HARBOR HAWAII

INFO RUEAHQ/CSAF USAF WAS DC

RUECW/CNO WASH DC

RUECW/SECNAV WASH DC

RUWGALB/CINCNO RAD ENT AFB COLO

RUHPA/CINCPAC CAMP H M SMITH HAWAII

RUHAFS/CINCUSARPAC FT SHAFTER HAWAII

RUHPB/CINCPACFLT PERAL HARBOR HAWAII

RUUAUZ/CONUSJAPAN FUCHU AS JAPAN

RUMAC/COMUSKOREA SEOUL KOREA

RUAGFL/COMUSTDC TAIPEI TAIWAN

RUCSBR/CINCSAC OFFUTT AFB NEBR

RUHPD/COMASWFORPAC FORD ISLAND HAWAII

BT

UNCLAS HADOC-D 0683

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

I N C O M I N G

AF IN: 29563 (11 Apr 63)

pg 2 of 2

1. CIRVIS REPORT
2. QUANTAS 531, B-707
3. APPEARED TO BE A SATELLITE
4. 20 DEG ABOVE HORIZON. POSITION OF AIRCRAFT, 02N 168.37 W
5. 11/1620Z
6. UNKNOWN
7. BEARING 260 DEG MAGNETIC FROM REPORTING AIRCRAFT
8. UNKNOWN

BT

11/1745Z APR RUHLKH

NOTE: ADV CY TO DIA, XOPX AND NIN.

EQUATOR S-N				SATELLITE 1960 101A 1 FOR OTHER LATITUDES							
TIME	LONG.	LAT.		TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.
(UT)	(W)			CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.	(MI)	(N-E)
APRIL 7, 1963											
0 47.2	173.11	47.4	28.9	-82.67	945	90.0*		28.9	-82.71	945	90.0*
2 42.6	202.30	45.0	23.6	-60.68	939	72.3*		34.2	-104.69	948	107.7*
4 38.0	231.50	40.0	19.5	-45.47	933	50.7*		38.4	-119.90	948	119.3*
6 33.4	260.69	35.0	16.4	-35.87	928	34.0*		41.5	-129.50	948	126.0*
8 28.8	289.88	30.0	13.7	-28.55	923	19.4*		44.2	-136.80	947	130.6
10 24.2	319.08	20.0	8.9	-17.28	915	43.7		49.1	-148.05	943	136.5
12 19.7	348.27	0.	0.	0.	903	39.9		58.0	-165.32	938	140.1
14 15.1	17.47	-20.0	-8.8	17.29	898	43.7		-48.6	148.18	926	136.5
16 10.5	46.66	-30.0	-13.6	28.57	898	49.4		-43.8	136.92	921	130.6
18 5.9	75.85	-40.0	-16.3	35.89	899	54.0		-41.1	129.60	919	126.0*
20 1.3	105.05	-40.0	-19.3	45.50	901	60.7*		-38.0	120.00	918	119.3*
21 56.7	134.25	-45.0	-23.4	60.73	903	72.3*		-33.8	104.78	912	107.7*
23 52.2	164.44	-47.4	-28.6	82.74	908	90.0*		-28.6	82.78	908	90.0*

APRIL 8, 1963											
1 47.8	192.83	47.4	28.9	-82.67	944	90.0*		28.9	-82.71	944	90.0*
3 43.0	221.83	45.0	23.6	-60.68	937	72.3*		34.2	-104.70	947	107.7*
5 38.4	251.02	40.0	19.4	-45.47	931	50.7*		38.4	-119.90	948	119.3*
7 33.8	280.22	35.0	16.4	-35.87	926	34.0*		41.5	-129.50	948	126.0*
9 29.2	309.41	30.0	13.7	-28.55	921	19.4*		44.2	-136.80	947	130.6
11 24.7	338.61	20.0	8.9	-17.28	914	43.7		49.1	-148.06	945	136.5
13 20.1	7.40	0.	0.	0.	902	39.9		58.0	-165.32	936	140.1
15 15.5	36.59	-20.0	-8.8	17.29	897	43.7		-48.6	148.18	926	136.5
17 10.9	65.79	-30.0	-13.6	28.57	898	49.4		-43.8	136.92	923	130.6
19 6.3	95.00	-40.0	-16.3	35.89	899	54.0		-41.1	129.60	921	126.0*
21 1.7	124.20	-40.0	-19.3	45.51	901	60.7*		-38.0	120.00	918	119.3*
23 57.2	153.37	-45.0	-23.4	60.73	904	72.3*		-33.8	104.78	918	107.7*
		-47.4	-28.6	82.74	909	90.0*		-28.6	82.78	909	90.0*

APRIL 9, 1963											
0 52.6	167.77	47.4	28.9	-82.68	942	90.0*		28.9	-82.72	942	90.0*
2 48.0	212.16	45.0	23.6	-60.69	936	72.3*		34.1	-104.71	940	107.7*
4 43.4	241.35	40.0	19.4	-45.48	929	50.7*		38.3	-119.91	947	119.3*
6 38.8	270.55	35.0	16.3	-35.87	928	34.0		41.5	-129.50	947	126.0*
8 34.2	299.74	30.0	13.7	-28.56	919	19.4*		44.2	-136.81	947	130.6
10 29.7	328.94	20.0	8.8	-17.29	911	43.7		49.1	-148.06	946	136.5
12 25.1	358.13	0.	0.	0.	901	39.9		58.0	-165.33	938	140.1
14 20.5	27.32	-20.0	-8.8	17.29	897	43.7		-48.6	148.18	926	136.5
16 15.9	56.52	-30.0	-13.6	28.57	898	49.4		-43.8	136.91	923	130.6
18 11.3	85.71	-40.0	-16.3	35.90	900	54.0		-41.1	129.60	923	126.0*
20 6.7	114.91	-40.0	-19.3	45.51	902	60.7*		-38.0	120.00	921	119.3*
22 2.1	144.10	-45.0	-23.4	60.73	905	72.3*		-33.8	104.78	918	107.7*
23 57.6	173.30	-47.4	-28.6	82.74	910	90.0*		-28.6	82.78	910	90.0*

APRIL 10, 1963											
1 53.0	202.40	47.4	28.8	-82.69	940	90.0*		28.8	-82.73	940	90.0*
3 48.4	231.59	45.0	23.6	-60.69	934	72.3*		34.1	-104.71	940	107.7*
5 43.8	260.78	40.0	19.4	-45.48	927	50.7*		38.3	-119.92	946	119.3*
7 39.2	290.07	35.0	16.3	-35.88	922	34.0		41.4	-129.51	947	126.0*
9 34.7	319.27	30.0	13.6	-28.56	917	19.4*		44.2	-136.82	946	130.6
11 30.1	348.46	20.0	8.8	-17.29	909	43.7		49.0	-148.07	945	136.5
13 25.5	7.65	0.	0.	0.	899	39.9		58.0	-165.33	939	140.1
15 20.9	36.85	-20.0	-8.8	17.29	897	43.7		-48.6	148.17	931	136.5
17 16.3	66.04	-30.0	-13.6	28.57	898	49.4		-43.8	136.91	927	130.6
19 11.7	95.24	-40.0	-16.3	35.90	900	54.0		-41.1	129.60	925	126.0*
21 7.1	124.43	-40.0	-19.3	45.51	903	60.7*		-38.0	119.99	923	119.3*
23 2.5	153.62	-45.0	-23.4	60.73	907	72.3*		-33.8	104.78	918	107.7*
		-47.4	-28.6	82.74	912	90.0*		-28.6	82.78	912	90.0*

EQUATOR S-N				SATELLITE 1960 101A 1 FOR OTHER LATITUDES							
TIME	LONG.	LAT.		TIME	LONG.	HT.	BEAR.	TIME	LONG.	HT.	BEAR.
(UT)	(W)			CORR.	CORR.	(MI)	(N-E)	CORR.	CORR.	(MI)	(N-E)
APRIL 11, 1963											
0 54.0	192.82	47.4	28.8	-82.69	939	90.0*		28.8	-82.73	939	90.0*
2 49.4	222.01	45.0	23.6	-60.69	932	72.3*		34.1	-104.72	943	107.7*
4 44.8	251.20	40.0	19.4	-45.48	925	50.7*		38.3	-119.92	946	119.3*
6 40.2	280.40	35.0	16.3	-35.88	920	34.0		41.4	-129.52	946	126.0*
8 35.6	309.59	30.0	13.6	-28.56	915	19.4*		44.1	-136.82	946	130.6
10 31.1	338.79	20.0	8.8	-17.29	908	43.7		49.0	-148.08	945	136.5
12 26.5	7.98	0.	0.	0.	898	39.9		58.0	-165.34	940	140.1
14 21.9	37.17	-20.0	-8.8	17.29	896	43.7		-48.7	148.17	933	136.5
16 17.3	66.37	-30.0	-13.6	28.57	899	49.4		-43.8	136.91	929	130.6
18 12.7	95.56	-40.0	-16.2	35.90	901	54.0*		-41.1	129.59	927	126.0
20 8.1	124.76	-40.0	-19.3	45.51	903	60.7*		-38.0	119.99	924	119.3*
22 3.5	153.95	-45.0	-23.4	60.73	908	72.3*		-33.9	104.78	919	107.7*
		-47.4	-28.6	82.74	914	90.0*		-28.6	82.78	914	90.0*

APRIL 12, 1963											
0 3.0	183.14	47.4	28.8	-82.69	937	90.0*		28.8	-82.74	937	90.0*
1 58.4	212.34	45.0	23.6	-60.70	930	72.3*		34.1	-104.73	942	107.7*
3 53.8	241.53	40.0	19.4	-45.49	923	50.7*		38.3	-119.93	944	119.3*
5 49.2	270.72	35.0	16.3	-35.88	918	34.0		41.4	-129.52	945	126.0*
7 44.6	299.92	30.0	13.6	-28.56	913	19.4*		44.1	-136.83	946	130.6
9 40.0	329.11	20.0	8.8	-17.29	905	43.7		49.0	-148.09	945	136.5
11 35.5	358.31	0.	0.	0.	897	39.9		57.9	-165.35	941	140.1
13 30.9	27.50	-20.0	-8.8	17.29	896	43.7		-48.7	148.16	935	136.5
15 26.3	56.69	-30.0	-13.6	28.58	899	49.4		-43.8	136.90	931	130.6
17 21.7	85.89	-40.0	-16.2	35.90	901	54.0*		-41.1	129.59	929	126.0
19 17.1	115.08	-40.0	-19.3	45.51	904	60.7*		-38.0	119.99	926	119.3*
21 12.5	144.27	-45.0	-23.4	60.73	909	72.3*		-33.9	104.78	921	107.7*
23 7.9	173.47	-47.4	-28.6	82.74	915	90.0*		-28.6	82.78	915	90.0*

APRIL 13, 1963											
1 3.4	202.46	47.4	28.8	-82.70	935	90.0*		28.8	-82.74	935	90.0*
2 58.8	231.65	45.0	23.6	-60.70	928	72.3*		34.0	-104.73	940	107.7*
4 54.2	261.05	40.0	19.4	-45.49	921	50.7*		38.2	-119.93	943	119.3*
6 49.6	290.24	35.0	16.3	-35.89	916	34.0		41.4	-129.53	944	126.0*
8 45.0	319.43	30.0	13.6	-28.57	912	19.4*		44.1	-136.84	945	130.6
10 40.4	348.63	20.0	8.8	-17.29	905	43.7		49.0	-148.09	945	136.5
12 35.8	7.82	0.	0.	0.	896	39.9		57.9	-165.35	942	140.1
14 31.3	37.02	-20.0	-8.8	17.29	896	43.7		-48.7	148.16	936	136.5
16 26.7	66.21	-30.0	-13.6	28.58	900	49.4		-43.9	136.90	933	130.6
18 22.1	95.40	-40.0	-16.2	35.90	902	54.0*		-41.1	129.58	931	126.0
20 17.5	124.60	-40.0	-19.3	45.51	906	60.7*		-38.0	119.98	928	119.3*
22 12.9	153.79	-45.0	-23.4	60.73	911	72.3*		-33.9	104.77	923	107.7*
		-47.4	-28.6	82.73	917	90.0*		-28.7	82.77	917	90.0*

MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1960 101A 1

REFERENCE TIME 1963 Y 3 M 30 D 1 H 52.52 M UT
 INCLINATION 47.25 DEG.
 ASCENDING NODE (LONG.) 155.70 DEG. WEST
 PERIODE INTERVAL ONE DAY -16.77 MIN.
 ARGUMENT OF PERIGEE 271.97 DEG.
 RATE OF CHANGE 0.38355 DEG. PER PERIOD
 ANOMALISTIC PERIOD 115.545 MIN.
 RATE OF CHANGE -0.00005 MIN. PER PERIOD
 ECCENTRICITY 0.00497
 PERIODE OF PERIGEE -4858.2 MILES
 RADIUS OF GLOBE 4000.0 MILES
 RATE OF CHANGE -0.004 MILES PER DAY
 ASCENDING NODE (LONG.) 59.00 DEG.
 RATE OF CHANGE -3.