

PROJECT 10073 RECORD CARD

1. DATE 13 April 1963		2. LOCATION Moorcroft, Wyoming		12. CONCLUSIONS ☐ Was Balloon ☐ Probably Balloon ☐ Possibly Balloon ☐ Was Aircraft ☐ Probably Aircraft ☐ Possibly Aircraft ☐ Was Astronomical ☐ Probably Astronomical ☐ Possibly Astronomical ☒ Satellite Echo I	
3. DATE-TIME GROUP Local 1930-2030 GMT _____		4. TYPE OF OBSERVATION ☒ Ground-Visual ☐ Ground-Radar ☐ Air-Visual ☐ Air-Intercept Radar			
5. PHOTOS ☐ Yes ☒ No		6. SOURCE Civilian			
7. LENGTH OF OBSERVATION 15 minutes		8. NUMBER OF OBJECTS one		9. COURSE southeast	
10. BRIEF SUMMARY OF SIGHTING Flying object that looked just like a star observed in flight to SE at fairly fast speed. Passed overhead. Believed to be satellite or weather device.				11. COMMENTS Echo was over Wyoming at 1938 on 13 April heading SE & had all characteristics of rptd obj. Case evaluated as Echo I, Balloon.	

AFR

Moorecroft, Wyo.
June 3, 1953

National Space
U.S. Government
Washington, D.C.

On the night of April 13, between 11:30
8:00 P.M. a flying object. Looking just
like a star, passed overhead moving in a
northwesterly direction. It was traveling at
a very high rate of speed. From the
position of observation it appeared to be
about 1000 feet of it appeared to be

This object could have been light or satellite,
or some other source. But it could not
be a meteor because it was not a streak
in the sky. It did not leave a trail
in a high speed photograph and it was
not a comet because it did not have a tail.

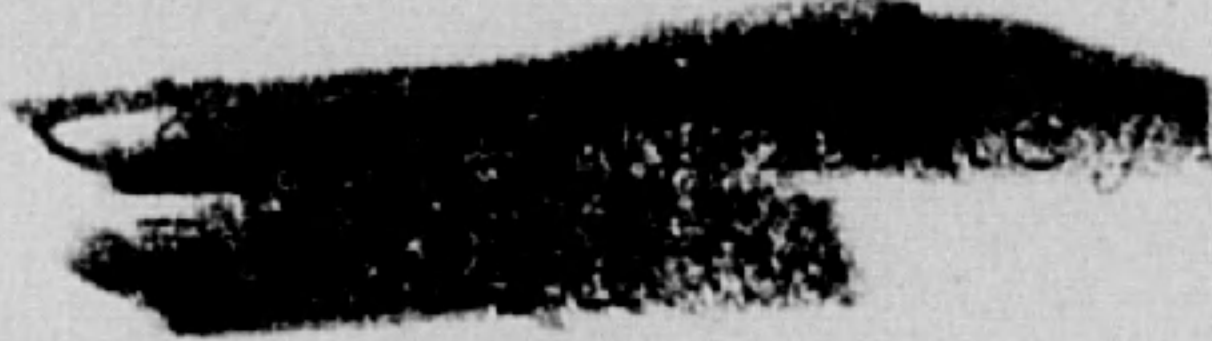
DEPARTMENT OF THE AIR FORCE
OFFICE OF THE SECRETARY

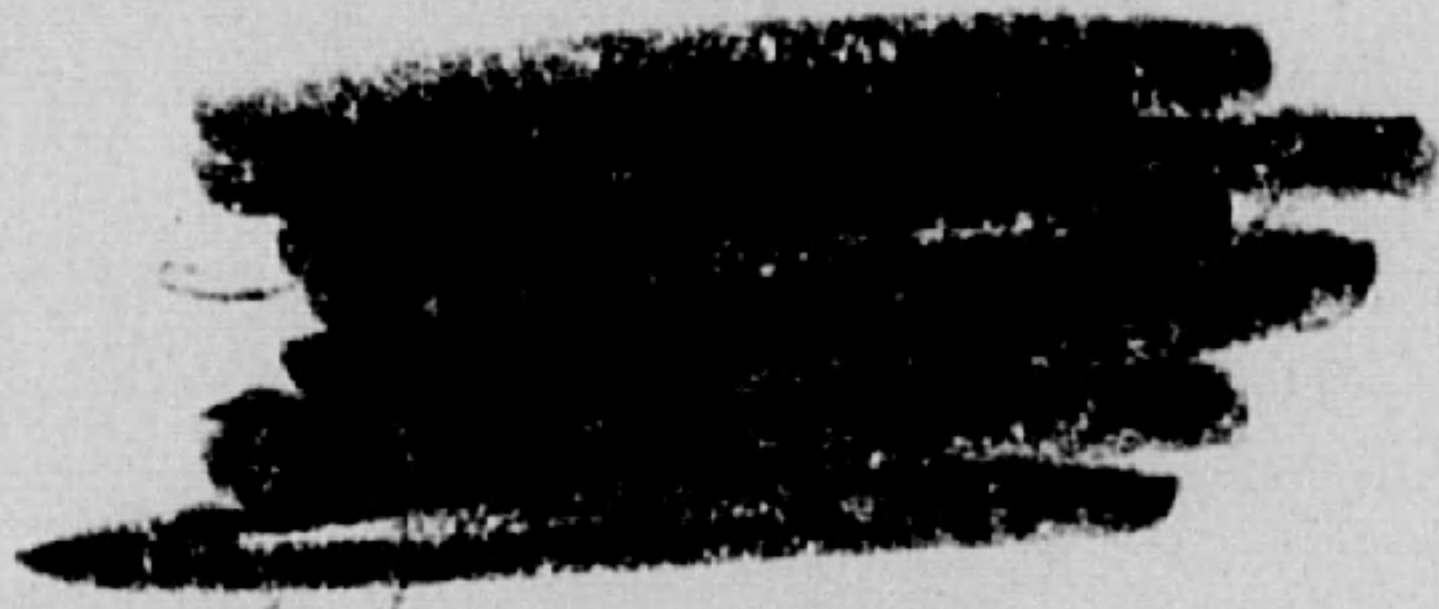
MEMORANDUM

June 10, 1963

Sgt Moody:

Request basis for reply
of the attached letter from:

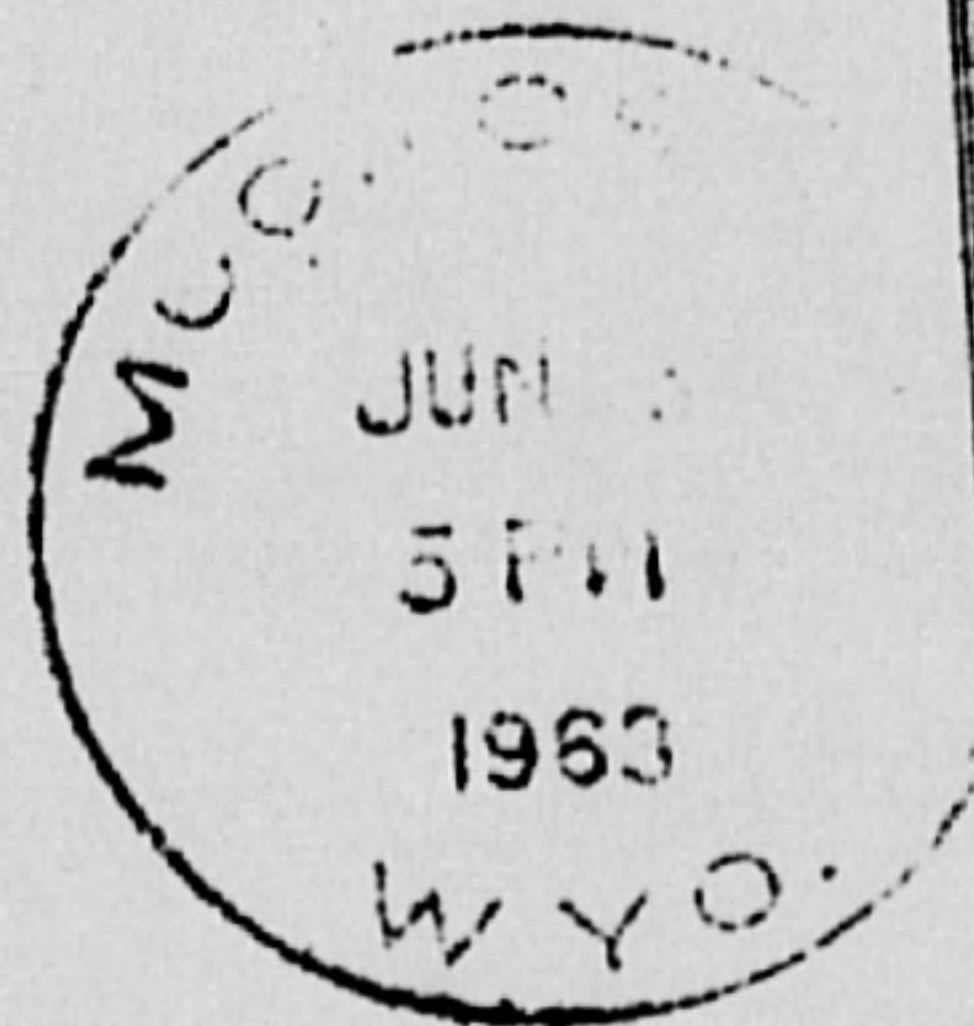

Moorcroft, Wyo.



*Recd. over WYOMING AT
738 PM Heading SE.*

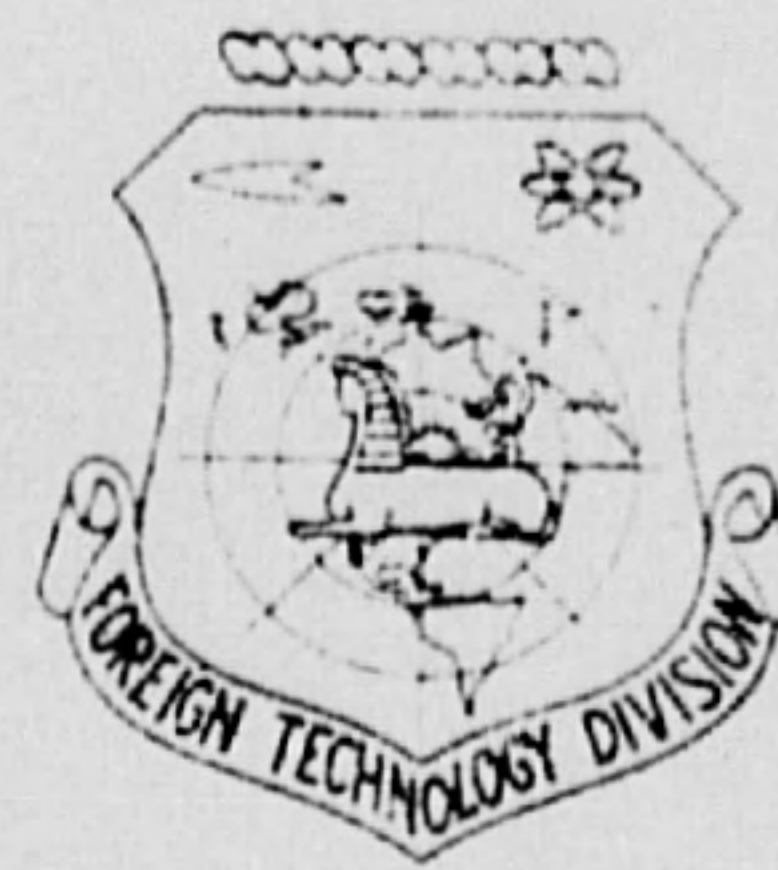
AFTER FIVE DAYS RETURN TO

Miss [redacted]
Moosecroft, Wyo
Box [redacted]



National Space Agency
U.S. Government
Washington, D.C.

HEADQUARTERS
FOREIGN TECHNOLOGY DIVISION
AIR FORCE SYSTEMS COMMAND
UNITED STATES AIR FORCE
WRIGHT-PATTERSON AIR FORCE BASE, OHIO



REPLY TO
ATTN OF: TDE

SUBJECT: UFO Sighting ([REDACTED])

14 June 1963

TO: Hq USAF SAF-OI 3b (Major Hart)
Wash 25 DC

1. Reference the attached letters regarding UFO sightings. These letters are forwarded to your office for whatever action you deem necessary.
2. Mr. [REDACTED] sighting of 28 May is similar to many reported observations of aircraft contrails with the sun reflecting on them at dusk.
3. There are several White Sands sightings and no information can be forwarded unless a specific date is given. The movie "UFO" was a Green-Rouse production based on the Tremonton photos, which were evaluated as seagulls, and the Mariana pictures, which were evaluated as two F-94 aircraft.
4. The sighting of Miss [REDACTED] has been evaluated as Echo. This satellite was over Wyoming at 7:38 PM on the night of 13 April and was heading southeast.
5. Mrs. [REDACTED] sighting of 15 May is now under study.

FOR THE COMMANDER

Eric T. de Jonckheere
ERIC T. de JONCKHEERE
Colonel, USAF
Deputy for Technology & Subsystems

3 Atch
1. Ltr fm [REDACTED]
2. Ltr fm [REDACTED] dtd
3 June 1963.
3. Ltr fm [REDACTED]
dtd 16 May 63.

19 June 1963

Dear M [REDACTED]

Your sighting has been evaluated as Echo. This satellite was over Wyoming at 7:38 PM on the night of 13 April and was heading southeast.

Your interest in Air Force matters is appreciated.

Sincerely,

WILLIAM J. LOOKADOO
Lt. Colonel, USAF
Public Information Div
Office of Information

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES											
EQUATOR S-N				SOUTH-NORTH				NORTH-SOUTH			
TIME (UT)	LONG. (W)	LAT.		TIME CORR.	LONG. CORR. (M)	HT. (M)	BEAR. (N-E)	TIME CORR.	LONG. CORR. (M)	HT. (M)	BEAR. (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	60.7°	38.4	-119.90	948	119.3°
6 33.4	260.69	35.0		16.4	-35.87	928	54.0°	41.5	-129.49	948	126.0°
8 28.8	289.88	30.0		13.7	-28.55	923	49.4	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	136.3°
12 19.7	348.27	0.		0.	0.	903	39.9	58.0	-155.32	935	140.1°
14 15.1	17.47	-20.0		-8.8	17.29	898	43.7	-48.6	148.18	926	136.3°
16 10.5	46.66	-30.0		-13.6	28.57	898	49.4	-43.8	136.92	921	130.6°
18 5.9	75.86	-35.0		-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	916	119.3°
21 58.7	134.25	-45.0		-23.4	60.73	903	72.3°	-33.8	104.78	912	107.7°
23 52.2	163.44	-47.4		-28.6	82.74	906	90.0°	-28.6	82.78	908	90.0°
APRIL 8, 1963											
1 47.6	192.63	47.4		28.9	-82.67	944	90.0°	28.9	-82.71	943	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	60.7°	38.4	-119.90	946	119.3°
7 33.8	280.22	35.0		16.4	-35.87	926	54.0°	41.5	-129.49	948	126.0°
9 29.2	309.41	30.0		13.7	-28.56	921	49.4	44.2	-136.80	947	130.6°
11 24.7	338.61	20.0		8.8	-17.28	913	43.7	49.1	-148.05	944	136.3°
13 20.1	7.80	0.		0.	0.	902	39.9	58.0	-155.32	936	140.1°
15 15.5	36.99	-20.0		-8.8	17.29	897	43.7	-48.6	148.18	928	136.3°
17 10.9	66.19	-30.0		-13.6	28.57	898	49.4	-43.8	136.92	923	130.6°
19 6.3	95.38	-35.0		-16.3	35.90	899	54.0	-41.1	129.60	921	126.0°
21 1.8	124.58	-40.0		-19.3	45.51	901	60.7°	-38.0	120.00	918	119.3°
22 57.2	153.77	-45.0		-23.4	60.73	904	72.3°	-33.8	104.78	914	107.7°
		-47.4		-28.6	82.74	909	90.0°	-28.6	82.78	909	90.0°
APRIL 9, 1963											
0 52.6	182.97	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	946	107.7°
4 43.4	241.35	40.0		19.4	-45.48	929	60.7°	38.3	-119.91	947	119.3°
6 38.8	270.55	35.0		16.3	-35.87	924	54.0°	41.5	-129.50	947	126.0°
8 34.3	299.74	30.0		13.7	-28.56	919	49.4	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	944	136.3°
12 25.1	358.13	0.		0.	0.	901	39.9	58.0	-155.33	936	140.1°
14 20.5	27.32	-20.0		-8.8	17.29	897	43.7	-48.6	148.18	930	136.3°
16 15.9	56.52	-30.0		-13.6	28.57	898	49.4	-43.8	136.91	925	130.6°
18 11.3	85.71	-35.0		-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	920	119.3°
22 2.2	144.10	-45.0		-23.4	60.73	905	72.3°	-33.8	104.78	916	107.7°
23 57.6	173.29	-47.4		-28.6	82.74	910	90.0°	-28.6	82.78	910	90.0°
APRIL 10, 1963											
1 53.0	202.49	47.4		28.8	-82.68	940	90.0°	28.8	-82.73	940	90.0°
3 48.4	231.68	45.0		23.6	-60.69	934	72.3°	34.1	-104.71	945	107.7°
5 43.8	260.88	40.0		19.4	-45.48	927	60.7°	38.3	-119.92	946	119.3°
7 39.2	290.07	35.0		16.3	-35.88	922	54.0°	41.4	-129.51	947	126.0°
9 34.7	319.27	30.0		13.6	-28.56	917	49.4	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	136.3°
13 25.5	17.65	0.		0.	0.	895	39.9	58.0	-155.33	939	140.1°
15 20.9	46.85	-20.0		-8.8	17.29	897	43.7	-48.6	148.17	931	136.3°
17 16.3	76.04	-30.0		-13.6	28.57	898	49.4	-43.8	136.91	927	130.6°
19 11.7	105.24	-35.0		-16.3	35.90	900	54.0°	-41.1	129.60	925	126.0°
21 7.2	134.43	-40.0		-19.3	45.51	903	60.7°	-38.0	120.00	922	119.3°
23 2.6	163.62	-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°

SATELLITE 1960 IOTA 1 FOR OTHER LATITUDES											
EQUATOR S-N				SOUTH-NORTH				NORTH-SOUTH			
TIME (UT)	LONG. (W)	LAT.		TIME CORR.	LONG. CORR. (M)	HT. (M)	BEAR. (N-E)	TIME CORR.	LONG. CORR. (M)	HT. (M)	BEAR. (N-E)
APRIL 11, 1963											
0 58.0	192.82	47.4		28.8	-82.69	939	90.0°	28.8	-82.73	939	90.0°
2 53.4	222.01	45.0		23.6	-60.69	932	72.3°	34.1	-104.72	943	107.7°
4 48.8	251.20	40.0		19.4	-45.48	925	60.7°	38.3	-119.92	946	119.3°
6 44.2	280.40	35.0		16.3	-35.88	920	54.0°	41.4	-129.52	946	126.0°
8 39.6	309.59	30.0		13.6	-28.56	915	49.4	44.1	-136.82	946	130.6°
10 35.1	338.79	20.0		8.8	-17.29	908	43.7	49.0	-148.08	945	136.3°
12 30.5	7.98	0.		0.	0.	898	39.9	58.0	-155.34	940	140.1°
14 25.9	37.17	-20.0		-8.8	17.29	896	43.7	-48.7	148.17	933	136.3°
16 21.3	66.37	-30.0		-13.6	28.57	899	49.4	-43.9	136.91	929	130.6°
18 16.7	95.56	-35.0		-16.2	35.90	901	54.0°	-41.1	129.59	927	126.0°
20 12.1	124.76	-40.0		-19.3	45.51	903	60.7°	-38.0	119.98	924	119.3°
22 7.6	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	947	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	60.7°	38.3	-119.93	944	119.3°
5 49.2	270.72	35.0		16.3	-35.88	918	54.0°	41.4	-129.52	945	126.0°
7 44.6	299.92	30.0		13.6	-28.56	913	49.4	44.1	-136.83	946	130.6°
9 40.0	329.11	20.0		8.8	-17.29	906	43.7	49.0	-148.09	945	136.3°
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	136.3°
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	-35.0		-16.2	35.90	901	54.0°	-41.1	129.59	929	126.0°
19 17.1	115.09	-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	202.66	47.4		28.8	-82.70	935	90.0°	28.8	-82.74	935	90.0°
2 58.8	231.85	45.0		23.5	-60.70	928	72.3°	34.0	-104.73	940	107.7°
4 54.2	261.05	40.0		19.4	-45.49	921	60.7°	38.2	-119.93	943	119.3°
6 49.6	290.24	35.0		16.3	-35.89	916	54.0°	41.4	-129.53	944	126.0°
8 45.0	319.43	30.0		13.6	-28.57	912	49.4	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	136.3°
12 35.8	17.82	0.		0.	0.	896	39.9	57.9	-165.35	942	140.1°
14 31.3	47.02	-20.0		-8.8	17.29	896	43.7	-48.7	148.16	936	136.3°
16 26.7	76.21	-30.0		-13.6	28.58	900	49.4	-43.9	136.90	933	130.6°
18 22.1	105.40	-35.0		-16.2	35.90	902	54.0°	-41.1	129.58	931	126.0°
20 17.5	134.60	-40.0		-19.3	45.51	906	60.7°	-38.0	119.98	928	119.3°
22 12.9	163.79	-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 IOTA 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
PRIME SWEEP INTERVAL ONE DAY -16.77 MIN.
ARGUMENT OF PERIGEE 271.97 DEG.
RATE OF CHANGE 0.