

## PROJECT 10073 RECORD CARD

|                                                                                                                                                 |  |                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1. DATE<br>24 June 1963                                                                                                                         |  | 2. LOCATION<br>39.38N 172.30W (Pacific)                                                                                                                                                               |  | 12. CONCLUSIONS<br><input type="checkbox"/> Was Balloon<br><input type="checkbox"/> Probably Balloon<br><input type="checkbox"/> Possibly Balloon<br><input type="checkbox"/> Was Aircraft<br><input type="checkbox"/> Probably Aircraft<br><input type="checkbox"/> Possibly Aircraft<br><input checked="" type="checkbox"/> Was Astronomical<br><input type="checkbox"/> Probably Astronomical<br><input type="checkbox"/> Possibly Astronomical |  |
| 3. DATE-TIME GROUP<br>Local _____<br>GMT 25/0829Z                                                                                               |  | 4. TYPE OF OBSERVATION<br><input type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar<br><input checked="" type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar |  | <input checked="" type="checkbox"/> Other Satellite (ECHO I)<br><input type="checkbox"/> Insufficient Data for Evaluation<br><input type="checkbox"/> Unknown                                                                                                                                                                                                                                                                                      |  |
| 5. PHOTOS<br><input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No                                                             |  | 6. SOURCE                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| 7. LENGTH OF OBSERVATION<br>Not reported                                                                                                        |  | 8. NUMBER OF OBJECTS<br>one                                                                                                                                                                           |  | 9. COURSE<br>075 degrees                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| 10. BRIEF SUMMARY OF SIGHTING<br>Possible Satellite on course of 075 deg with brightness of 2d magnitude star. Speed unknown, altitude unknown. |  |                                                                                                                                                                                                       |  | 11. COMMENTS<br>On 25 June at 0801Z ECHO crossed the equator heading NE at 100 deg East. This would place the Satellite at about 47 deg North Latitude 170 deg W longitude at the time reported for this observation. This position and the description conforms with the analysis of the sighting as the Satellite ECHO I.                                                                                                                        |  |



24 25/08297

DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
UNCLASSIFIED MESSAGE

AF IN: 13259 (25 Jun 63) X/rsg **N C O M I N G**  
INFO : NIN-9, XOP-1, XOPX-4, SAF-OS-3, ARMY-2, CMC-8, JCS-35, OSD-15,  
DIA-25, DIA/CIIC-2, NSA-7 (112)  
SMB A153

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CZCHQA15 1ZCECB191

..... YY RUEAHQ

DE RUHPF B033

ZNR

Y 250917Z

FH COMBARPAC

TO RUHPHH/COMHAWSEAFRON

RUHLKM/INCPACAF

RUUAUAH/HADD KUNIA

ZEN/INCNORAD

INFO RUECW/CNO

RUEAHQ/COFS USAF

RUHPA/INCPAC

RUHPB/INCPACFLT

RUHAFS/INCUSARPAC

RUHLKMP/PACAFBASECOM HICKMAN

RUECW/SECNAV

NAVY GRNC

BT NOTE: READDRESSED ELECTRICAL TRANSMISSION TO: CIA  
ADVANCE COPY DELIVERED TO: DIA, NIN & XOPX  
UNCLAS.

02

|                 |        |
|-----------------|--------|
| 08012           | 260.21 |
| 27              | -83    |
| <hr/>           | <hr/>  |
| 08282           | 177.   |
| E → 47°N. 177°W |        |



DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
UNCLASSIFIED MESSAGE

I N C O M I N G

NNNN

AF IN: 13259 (25 Jun 63)

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A. JANAP 146D

1. CIRVIS RPT

2. N43186

3. POSS SATELLITE INTENSITY OF SECOND MAGNITUDE STAR.

4. 39-38N 172-30W

5. 250829Z

6. ALT UNK

7. CUS 075

8. SPD UNK

9. EVALUATION UNKNOWN

BT

25/0918Z



DEPARTMENT OF THE AIR FORCE

STAFF MESSAGE BRANCH

HO/ASSTO MESSAGE

Page 1 of 2

AF IN : 13296 (25 Jun 63)

INFO : NIN-9, XOP-1, XOPX-4, ~~SAF-OS-3~~, ~~ARMY-2~~, NAVY-2, CMC-8,

JCS-35, OSD-15, NSA-7, DIA-25, DIA-CIIC-2 (114)

02

SMB A162

CZCHQA160ZCQJA602

OO RUEAHQ

DE RUHLKH 9

ZNR

O 250949Z

FM 326 AIR DIV KUNIA FACILITY HAWAII

TO RUHLKM/PACAF HICKAM AFB HAWAII

RUHPHH/COMHAWSEAFRON PEARL HARBOR HAAAI

INKO RUEAHQ/CSAF 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 SHAFTER HAWAII

RUHPB/CINCPACFLT PEARL HARBOR HAWAII

RUUAUZ/COMUSJAPAN FUCHU AS JAPAN

RUAMC/COMUSKOREA SEOUL KOREA

RUAGFL/COMUSTDC TAIPEI TAIWAN

RUCSBRB/CINCSAC OFFUTT AFB NEBR

RUHPD/COMASWFORPAC FORD ISLAND HAWAII

AF GRNC

BT



DEPARTMENT OF THE AIR FORCE  
STAFF MESSAGE BRANCH  
UNCLASSIFIED MESSAGE

I N C O M I N G

NNNN

AF IN : 13296 (25 Jun 63)

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UNCLAS/C IRVIS

1. NAVY 43186
2. POSSIBLE SATALITE
3. 3938N 17230W
4. 25/0829Z
- JTM COORSE 075 DEGREES
6. SP UNK
7. ALT UNK
8. SECOND MAGNITUDE STAR
9. EVALUATION UNKNOWN

BT

25/0957Z JUN RUHLKH

NOTE: Advance copy delivered to XOPX, NIN & DIA.  
Retransmitted to CIA Per #636.



JUNE 19, 1963

## SATELLITE 1960 IOTA 1, RUNO 1

These predictions are based on orbital elements revised on June 17, 1963  
 $T_0$  = June 18.0, times are in days, U.T.  
 Argument of perigee =  $322.404 + 3.4818 (t-T_0)$   
 Right ascension of ascending node =  $136.885 + 3.3002 (t-T_0)$

Inclination =  $47.2699$   
 Eccentricity =  $0.049678 + 2.019 \times 10^{-4} (t-T_0)$   
 Semi-major axis =  $7.841343$  megameters  
 Mean anomaly (Rev.) =  $0.33111 + 12.302001 (t-T_0) + 1.225 \times 10^{-4} (t-T_0)^2$

| EQUATOR S-N   |              |       |  | SATELLITE 1960 IOTA 1<br>FOR OTHER LATITUDES |                |             |                |               |                |             |                | EQUATOR S-N  |              |       |  | SATELLITE 1960 IOTA 1<br>FOR OTHER LATITUDES |                |             |                |               |                |             |                |
|---------------|--------------|-------|--|----------------------------------------------|----------------|-------------|----------------|---------------|----------------|-------------|----------------|--------------|--------------|-------|--|----------------------------------------------|----------------|-------------|----------------|---------------|----------------|-------------|----------------|
| TIME<br>(UT)  | LONG.<br>(W) | LAT.  |  | TIME<br>CORR.                                | LONG.<br>CORR. | HT.<br>(MI) | BEAR.<br>(N-E) | TIME<br>CORR. | LONG.<br>CORR. | HT.<br>(MI) | BEAR.<br>(N-E) | TIME<br>(UT) | LONG.<br>(W) | LAT.  |  | TIME<br>CORR.                                | LONG.<br>CORR. | HT.<br>(MI) | BEAR.<br>(N-E) | TIME<br>CORR. | LONG.<br>CORR. | HT.<br>(MI) | BEAR.<br>(N-E) |
| JUNE 22, 1963 |              |       |  |                                              |                |             |                |               |                |             |                |              |              |       |  |                                              |                |             |                |               |                |             |                |
| 1 22.7        | 148.52       | 47.5  |  | 27.4                                         | -82.95         | 1003        | 90.0°          | 27.8          | -83.00         | 1003        | 90.0°          | 1 17.0       | 162.23       | 47.5  |  | 27.2                                         | -83.09         | 944         | 90.0°          | 27.2          | -83.14         | 944         | 90.0°          |
| 3 17.8        | 175.64       | 45.0  |  | 22.4                                         | -60.90         | 933         | 72.2°          | 33.3          | -105.01        | 1065        | 107.8°         | 3 12.1       | 191.35       | 45.0  |  | 22.0                                         | -61.00         | 873         | 72.2°          | 32.6          | -105.18        | 1014        | 107.8°         |
| 5 12.9        | 204.75       | 40.0  |  | 14.3                                         | -45.72         | 877         | 60.7°          | 37.7          | -120.11        | 1105        | 119.4°         | 5 7.2        | 220.46       | 40.0  |  | 17.0                                         | -45.80         | 818         | 60.7°          | 37.0          | -120.30        | 1063        | 119.4°         |
| 7 8.0         | 231.87       | 35.0  |  | 15.3                                         | -36.11         | 836         | 54.0°          | 41.1          | -129.63        | 1128        | 126.1°         | 7 2.3        | 249.57       | 35.0  |  | 15.0                                         | -36.17         | 760         | 54.0°          | 40.3          | -129.84        | 1094        | 126.1°         |
| 9 3.0         | 262.98       | 30.0  |  | 12.7                                         | -28.77         | 802         | 49.4°          | 44.0          | -136.88        | 1143        | 130.8°         | 8 57.4       | 278.69       | 30.0  |  | 12.5                                         | -28.82         | 751         | 49.4°          | 43.2          | -137.09        | 1117        | 130.7°         |
| 10 58.1       | 292.10       | 20.0  |  | 3.2                                          | -17.45         | 749         | 43.7°          | 49.3          | -148.01        | 1156        | 136.5°         | 10 52.4      | 307.80       | 20.0  |  | 8.0                                          | -17.47         | 706         | 43.8           | 48.5          | -148.23        | 1146        | 136.5°         |
| 12 53.2       | 321.21       | 0.    |  | 0.                                           | 0.             | 681         | 40.0           | 59.1          | -164.06        | 1133        | 140.3°         | 12 47.5      | 336.91       | 0.    |  | 0.                                           | 0.             | 662         | 40.0           | 58.2          | -165.28        | 1155        | 140.3°         |
| 14 48.3       | 350.33       | -20.0 |  | -8.0                                         | 17.48          | 665         | 43.8           | -46.6         | 148.71         | 1057        | 136.4°         | 14 42.6      | 6.03         | -20.0 |  | -8.0                                         | 17.49          | 671         | 43.9           | -47.3         | 148.53         | 1104        | 136.5°         |
| 16 43.4       | 19.44        | -40.0 |  | -12.4                                        | 29.86          | 678         | 49.5           | -41.5         | 137.51         | 1001        | 130.7°         | 16 37.7      | 35.14        | -40.0 |  | -12.4                                        | 28.86          | 699         | 49.5           | -42.1         | 137.36         | 1056        | 130.7°         |
| 18 38.5       | 48.56        | -35.0 |  | -14.9                                        | 36.23          | 692         | 54.0°          | -38.7         | 130.22         | 967         | 126.1°         | 18 32.8      | 64.25        | -35.0 |  | -14.8                                        | 36.23          | 720         | 54.0°          | -40.3         | 130.59         | 1025        | 126.1°         |
| 20 33.6       | 77.67        | -40.0 |  | -17.6                                        | 45.89          | 714         | 60.7°          | -35.6         | 120.44         | 921         | 119.4°         | 20 27.9      | 93.36        | -40.0 |  | -17.7                                        | 45.87          | 749         | 60.7°          | -36.1         | 120.53         | 987         | 119.4°         |
| 22 28.7       | 106.79       | -45.0 |  | -21.5                                        | 61.14          | 750         | 72.2°          | -31.5         | 105.46         | 873         | 107.8°         | 22 22.9      | 122.48       | -45.0 |  | -21.6                                        | 61.11          | 795         | 72.2°          | -31.9         | 105.37         | 932         | 107.8°         |
|               |              | -47.5 |  | -26.4                                        | 83.30          | 807         | 90.0°          | -26.4         | 83.34          | 808         | 90.0°          |              |              | -47.5 |  | -26.6                                        | 83.21          | 861         | 90.0°          | -26.7         | 83.28          | 862         | 90.0°          |
| JUNE 23, 1963 |              |       |  |                                              |                |             |                |               |                |             |                |              |              |       |  |                                              |                |             |                |               |                |             |                |
| 0 23.8        | 135.90       | 47.5  |  | 27.6                                         | -82.98         | 989         | 90.0°          | 27.6          | -83.03         | 989         | 90.0°          | 0 18.0       | 151.59       | 47.5  |  | 27.1                                         | -83.12         | 930         | 90.0°          | 27.1          | -83.17         | 930         | 90.0°          |
| 2 18.9        | 165.02       | 45.0  |  | 22.3                                         | -60.92         | 919         | 72.2°          | 33.1          | -105.05        | 1054        | 107.8°         | 2 13.1       | 180.70       | 45.0  |  | 21.9                                         | -61.03         | 858         | 72.2°          | 32.5          | -105.22        | 1000        | 107.8°         |
| 4 13.9        | 194.13       | 40.0  |  | 14.2                                         | -45.74         | 852         | 60.7°          | 37.6          | -120.15        | 1096        | 119.4°         | 4 8.2        | 209.81       | 40.0  |  | 17.9                                         | -45.82         | 804         | 60.7°          | 36.8          | -120.36        | 1051        | 119.4°         |
| 6 9.0         | 223.25       | 35.0  |  | 15.2                                         | -36.13         | 822         | 54.0°          | 40.9          | -129.68        | 1121        | 126.1°         | 6 3.3        | 238.93       | 35.0  |  | 15.0                                         | -36.19         | 768         | 54.0°          | 40.1          | -129.88        | 1084        | 126.1°         |
| 8 4.1         | 252.36       | 30.0  |  | 12.7                                         | -28.79         | 783         | 49.4°          | 43.8          | -136.93        | 1136        | 130.7°         | 7 58.3       | 268.04       | 30.0  |  | 12.5                                         | -28.83         | 739         | 49.4           | 43.0          | -137.14        | 1109        | 130.7°         |
| 9 59.7        | 281.48       | 20.0  |  | 3.1                                          | -17.45         | 737         | 43.7°          | 49.1          | -148.06        | 1155        | 136.5°         | 9 53.4       | 297.15       | 20.0  |  | 8.0                                          | -17.48         | 698         | 43.8           | 48.2          | -148.29        | 1142        | 136.5°         |
| 11 54.3       | 310.59       | 0.    |  | 0.                                           | 0.             | 675         | 40.0           | 58.9          | -165.11        | 1139        | 140.3°         | 11 48.5      | 326.26       | 0.    |  | 0.                                           | 0.             | 659         | 40.0           | 58.0          | -165.33        | 1158        | 140.3°         |
| 13 49.4       | 339.70       | -20.0 |  | -8.0                                         | 17.49          | 665         | 43.8           | -46.7         | 148.67         | 1069        | 136.4°         | 13 43.6      | 355.38       | -20.0 |  | -8.0                                         | 17.49          | 675         | 43.8           | -47.5         | 148.48         | 1114        | 136.5°         |
| 15 44.5       | 8.82         | -35.0 |  | -12.4                                        | 29.86          | 692         | 49.5           | -41.6         | 137.48         | 1015        | 130.7°         | 15 38.7      | 24.49        | -35.0 |  | -12.4                                        | 28.86          | 705         | 49.4           | -42.3         | 137.32         | 1069        | 130.7°         |
| 17 39.6       | 37.93        | -35.0 |  | -14.9                                        | 36.23          | 698         | 54.0°          | -38.9         | 130.19         | 991         | 126.1°         | 17 33.7      | 53.60        | -35.0 |  | -14.8                                        | 36.22          | 728         | 54.0°          | -40.4         | 130.55         | 1019        | 126.1°         |
| 19 34.7       | 67.05        | -40.0 |  | -17.6                                        | 45.89          | 721         | 60.7°          | -35.7         | 120.62         | 941         | 119.4°         | 19 28.8      | 82.71        | -40.0 |  | -17.7                                        | 45.86          | 759         | 60.7°          | -36.2         | 120.49         | 1001        | 119.4°         |
| 21 29.7       | 96.16        | -45.0 |  | -21.5                                        | 61.13          | 760         | 72.2°          | -31.6         | 105.45         | 886         | 107.8°         | 21 23.9      | 111.73       | -45.0 |  | -21.6                                        | 61.09          | 808         | 72.2°          | -32.0         | 105.35         | 946         | 107.8°         |
| 23 24.8       | 125.28       | -47.5 |  | -26.4                                        | 83.28          | 820         | 90.0°          | -26.5         | 83.33          | 820         | 90.0°          | 23 19.0      | 140.94       | -47.5 |  | -26.7                                        | 83.22          | 875         | 90.0°          | -26.7         | 83.26          | 876         | 90.0°          |
| JUNE 24, 1963 |              |       |  |                                              |                |             |                |               |                |             |                |              |              |       |  |                                              |                |             |                |               |                |             |                |
| 1 19.9        | 154.37       | 47.5  |  | 27.5                                         | -83.02         | 974         | 90.0°          | 27.5          | -83.07         | 974         | 90.0°          | 1 14.0       | 170.05       | 47.5  |  | 27.0                                         | -83.15         | 914         | 90.0°          | 27.0          | -83.20         | 914         | 90.0°          |
| 3 15.0        | 183.51       | 45.0  |  | 22.2                                         | -60.93         | 904         | 72.2°          | 32.9          | -105.10        | 1041        | 107.8°         | 3 9.1        | 199.16       | 45.0  |  | 21.8                                         | -61.05         | 843         | 72.2°          | 32.1          | -105.26        | 995         | 107.8°         |
| 5 10.1        | 212.62       | 40.0  |  | 14.1                                         | -45.75         | 847         | 60.7°          | 37.4          | -120.21        | 1086        | 119.4°         | 5 4.2        | 228.27       | 40.0  |  | 17.8                                         | -45.83         | 790         | 60.7°          | 36.6          | -120.39        | 1037        | 119.4°         |
| 7 5.2         | 241.73       | 35.0  |  | 15.1                                         | -36.14         | 807         | 54.0°          | 40.7          | -129.73        | 1113        | 126.1°         | 7 0.3        | 257.39       | 35.0  |  | 14.7                                         | -36.20         | 755         | 54.0°          | 39.9          | -129.93        | 1012        | 126.1°         |
| 9 0.3         | 270.84       | 30.0  |  | 12.6                                         | -28.80         | 776         | 49.4°          | 43.6          | -136.98        | 1132        | 130.7°         | 8 55.4       | 286.50       | 30.0  |  | 12.4                                         | -28.84         | 729         | 49.4           | 42.8          | -137.19        | 1099        | 130.7°         |
| 10 55.3       | 299.96       | 20.0  |  | 3.1                                          | -17.47         | 726         | 43.7°          | 48.9          | -148.12        | 1153        | 136.5°         | 10 49.4      | 315.61       | 20.0  |  | 8.0                                          | -17.48         | 689         | 43.8           | 48.0          | -148.35        | 1136        | 136.5°         |
| 12 50.4       | 329.07       | 0.    |  | 0.                                           | 0.             | 679         | 40.0           | 58.6          | -165.17        | 1146        | 140.3°         | 12 44.5      | 344.72       | 0.    |  | 0.                                           | 0.             | 657         | 40.0           | 57.7          | -165.39        | 1160        | 140.3°         |
| 14 45.5       | 358.19       | -20.0 |  | -8.0                                         | 17.49          | 665         | 43.8           | -46.9         | 148.62         | 1082        | 136.5°         | 14 39.6      | 373.83       | -20.0 |  | -8.0                                         | 17.49          | 679         | 43.8           | -47.7         | 148.43         | 1124        | 136.5°         |
| 16 40.6       | 19.30        | -40.0 |  | -12.4                                        | 29.86          | 697         | 49.5           | -41.7         | 137.44         | 1029        | 130.7°         | 16 34.7      | 47.95        | -40.0 |  | -12.4                                        | 28.85          | 713         | 49.4           | -42.5         | 137.37         | 1067        | 130.7°         |
| 18 35.7       | 48.41        | -35.0 |  | -14.9                                        | 36.23          | 705         | 54.0°          | -39.0         | 130.20         | 970         | 126.1°         | 18 29.7      | 77.06        | -35.0 |  | -14.8                                        | 36.21          | 738         | 54.0°          | -40.6         | 130.50         | 1053        | 126.1°         |
| 20 30.8       | 77.52        | -40.0 |  | -17.6                                        | 45.89          | 730         | 60.7°          | -35.8         | 120.59         | 927         | 119.4°         | 20 24.8      | 106.17       | -40.0 |  | -17.7                                        | 45.85          | 771         | 60.7°          | -36.4         | 120.45         | 1016        | 119.4°         |
| 22 25.9       | 106.63       | -45.0 |  | -21.5                                        | 61.13          | 772         | 72.2°          | -31.7         | 105.42         | 902         | 107.8°         | 22 19.9      | 135.28       | -45.0 |  | -21.6                                        | 61.08          | 821         | 72.2°          | -32.1         | 105.31         | 962         | 107.8°         |
|               |              | -47.5 |  | -26.4                                        | 83.27          | 834         | 90.0°          | -26.5         | 83.32          | 834         | 90.0°          |              |              | -47.5 |  | -26.8                                        | 83.19          | 891         | 90.0°          | -26.8         | 83.24          | 891         | 90.0°          |
| JUNE 25, 1963 |              |       |  |                                              |                |             |                |               |                |             |                |              |              |       |  |                                              |                |             |                |               |                |             |                |
| 0 20.9        | 143.36       | 47.5  |  | 27.4                                         | -83.05         | 960         | 90.0°          | 27.4          | -83.10         | 960         | 90.0°          | 0 15.0       | 159.33       | 47.5  |  | 26.9                                         | -83.18         | 899         | 90.0°          | 26.9          | -83.23         | 899         | 90.0°          |
| 2 16.0        | 172.47       | 45.0  |  | 22.1                                         | -60.94         | 898         | 72.2°          | 32.8          | -105.14        | 1028        | 107.8°         | 2 10.1       | 188.40       | 45.0  |  | 21.7                                         | -61.07         | 828         | 72.2°          | 32.2          | -105.30        | 970         | 107.8°         |
| 4 11.1        | 201.59       | 40.0  |  | 14.0                                         | -45.76         | 833         | 60.7°          | 37.2          | -120.25        | 1075        | 119.4°         | 4 5.1        | 217.52       | 40.0  |  | 17.6                                         | -45.85         | 777         | 60.7°          | 36.4          | -120.43        | 1024        | 119.4°         |
| 6 6.2         | 230.70       | 35.0  |  | 15.0                                         | -36.16         | 799         | 54.0°          | 40.5          | -129.78        | 1104        | 126.1°         | 6 0.2        | 246.73       | 35.0  |  | 14.5                                         | -36.21         | 743         | 54.0°          | 39.7          | -129.98        | 1011        | 126.1°         |
| 8 1.3         | 259.81       | 30.0  |  | 12.5                                         | -28.81         | 765         | 49.4°          | 43.5          | -136.93        | 111         |                |              |              |       |  |                                              |                |             |                |               |                |             |                |