# PROJECT 10073 RECORD CARD

| | | |
|---|---|---|
| 1. DATE<br>13 Sep 63 | 2. LOCATION<br>24.40N 150 W (Pacific) | 12. CONCLUSIONS<br>☐ Was Balloon<br>☐ Probably Balloon<br>☐ Possibly Balloon<br>☐ Was Aircraft<br>☐ Probably Aircraft<br>☐ Possibly Aircraft<br>☐ Was Astronomical<br>☐ Probably Astronomical<br>☐ Possibly Astronomical<br>☒ Other Satellite<br>☐ Insufficient Data for Evaluation<br>☐ Unknown |
| 3. DATE-TIME GROUP<br>Local<br>GMT 14/0645Z | 4. TYPE OF OBSERVATION<br>☐ Ground-Visual ☐ Ground-Radar<br>☒ Air-Visual ☐ Air-Intercept Radar | |
| 5. PHOTOS<br>☐ Yes<br>☒ No | 6. SOURCE<br>United Airlines | |
| 7. LENGTH OF OBSERVATION<br>not reported | 8. NUMBER OF OBJECTS<br>one | 9. COURSE<br>Not reported |

**10. BRIEF SUMMARY OF SIGHTING**

Satellite in Dipper handle.

**11. COMMENTS**

At 0645Z ECHO would have been at about 20 deg North and moving NE at a longitude of 150 deg East. This is 60 deg to the West of the reported position. ECHO ruled out unless position or time is in error. Since object was reported as a Satellite case, is carried in that category.

ATIC FORM 329 (REV 26 SEP 52)

13 Ave

SMB C183

DEPARTMENT OF THE AIR FORCE
STAFF MESSAGE BRANCH
UNCLASSIFIED MESSAGE

# INCOMING

LKA646KHA712

00 RUEAHQ RUECW

DE RUHLKH 3 14/0725Z

ZNR

O 140720Z

FMEWY AIR DIV KUNIA FACILITY HAWAII

TO RUHLKM/PACAF HICKAM AFB HAWAII

RUHPHH/COMHAWSEAFRON PEARL HARBOR HAWAII

INFO 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/CINCUUARPAC FT SHAFTER HAWAII

RUHPB/CINCPACFLT PEAJL HARBOR HAWAII

RUAUAZ/COMUSJAPAN FUCHU AS JAPAN

RUAMC/COMUUKOREA SEOUL KOREA

RUAGFL/COMUSTDC TAIPEI TAIWAN

RUCSBRB/CINC AC OFUTT AFB NEBR

RUHPD/COMASWFORPAC FORD ISLAND HAWAII

AF GRNC

BT

UNCLAS CIRVIS REPORT 326DOCO 1534

UNITED AIR LINES

SATALITE IN DIPPER HANDLE

24.40N-150W

14/0645Z

AF IN : 58377 (14Sep63)D/jmh

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-

0640 227.79
-17
210° W
15°N 0646Z
150E

NOTE: Adv cy to XOPX, NIN, DIA

SATELLITE 1963 10B1 1

FROM [illegible] LATITUDE.

| SUBL. LONG. | SUBL. LAT. | ORBIT NO. | TIME CORR. | NORTH LONG CORR. | NORTH LAT. | ORBIT NO. | TIME | EQUATOR S.A. LONG. | LAT. | TIME | SOUTH LONG. | LAT. | ORBIT NO. | TIME | LONG. | LAT. | ORBIT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEPTEMBER 9, 1963 | | | | | | | | | | | | | | SEPTEMBER 1[illegible], 1963 | | | |
| [illegible] | [illegible] | 1210 | 90.0* | 30.7 | -86.27 | 1210 | 90.0* | 1 [illegible] | 136.79 | 47.5 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 1212 | 72.1* | 36.6 | -100.20 | 1216 | 107.9* | 3 [illegible] | 163.89 | 45.0 | [illegible] | -87.46 | [illegible] | [illegible] | -[illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 1162 | 60.6* | 41.2 | -119.15 | 1159 | 119.5* | 4 [illegible] | 137.64 | 40.0 | [illegible] | [illegible] | 1161 | [illegible] | -117.[illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 1163 | 53.9* | 44.7 | -126.71 | 1162 | 126.2* | 6 [illegible] | 221.90 | 35.0 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 1164 | 47.3* | 47.6 | -136.27 | 1163 | 136.4* | 8 [illegible] | 290.94 | 30.0 | [illegible] | -28.7 | 309 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | 43.1* | 52.9 | -147.13 | 1[illegible]58 | 146.5* | 10 [illegible] | 274.97 | 25.0 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 866 | 37.9* | 62.5 | -164.32 | 1525 | 167.1* | 12 15.7 | 304.91 | 0. | [illegible] | 0. | [illegible] | [illegible] | [illegible] | -164.[illegible] | [illegible] |
| [illegible] | [illegible] | 717 | 43.7* | -64.3 | 149.38 | 884 | 138.3* | 14 [illegible] | 318.07 | 20.0 | [illegible] | [illegible] | 865 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | 47.5 | -53.7 | 137.96 | 717 | 135.6* | 16 [illegible] | 7.08 | 30.0 | [illegible] | 28.64 | 868 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | [illegible] | 54.0 | -37.3 | 133.60 | 698 | 126.9* | 18 [illegible] | 35.12 | -35.0 | -15.7 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 65.80 | [illegible] | 60.7 | -34.0 | 120.94 | 656 | 114.3* | 20 15.8 | 65.15 | -40.0 | [illegible] | [illegible] | 569 | [illegible] | [illegible] | [illegible] | 117.[illegible] |
| [illegible] | 81.09 | 605 | 72.2 | -30.9 | 107.[illegible] | 625 | 107.8* | 23 [illegible] | 95.19 | -45.0 | [illegible] | 82.40 | 599 | 72.2 | [illegible] | 105.[illegible] | 107.8* |
| [illegible] | 83.39 | 605 | 90.0 | -26.2 | 83.45 | 605 | 90.0 | | | -47.5 | [illegible] | [illegible] | 612 | [illegible] | [illegible] | [illegible] | [illegible] |
| SEPTEMBER 9, 1963 | | | | | | | | | | | | | | SEPTEMBER 1[illegible], 1963 | | | |
| [illegible] | -82.27 | 1267 | 90.0* | 30.5 | -85.[illegible] | 1267 | 90.0* | 0 [illegible] | 123.23 | 47.5 | 30.7 | -[illegible] | 11[illegible] | [illegible] | [illegible] | 28.7 | [illegible] | 1180 | 90.0* |
| [illegible] | -63.33 | 1173 | 72.1* | 36.4 | 104.25 | 1171 | 107.9* | 1 49.1 | 152.26 | 45.0 | [illegible] | -85.61 | 1172 | [illegible] | [illegible] | -104.[illegible] | 1171 | 107.9* |
| [illegible] | -45.27 | 1129 | 60.6* | 41.1 | -119.28 | 1197 | 119.5* | 3 53.9 | 181.30 | 40.0 | 19.6 | -45.42 | 1065 | 0.0* | [illegible] | [illegible] | [illegible] |
| [illegible] | -35.34 | 1087 | 53.9* | 44.5 | -128.77 | 1173 | 126.2* | 5 48.7 | 210.13 | 35.0 | 17.2 | -35.86 | 1015 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | -28.69 | 1047 | 49.1* | 47.5 | -136.01 | 1156 | 136.6* | 7 44.4 | 239.37 | 30.0 | 15.4 | -[illegible] | 970 | 49.1* | [illegible] | [illegible] | [illegible] |
| [illegible] | -17.27 | [illegible] | 43.6* | 52.7 | -147.15 | 1081 | 136.5* | 9 38.2 | 285.40 | 20.[illegible] | [illegible] | -17.[illegible] | 887 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 841 | 39.5* | 61.0 | -164.35 | 926 | 143.2* | 11 33.0 | 291.44 | 0. | [illegible] | [illegible] | 745 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 17.40 | 597 | 43.7* | -44.2 | 149.31 | 830 | 136.3* | 13 27.[illegible] | 328.47 | 20.0 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 30.77 | 667 | 49.5 | -35.7 | 137.98 | 767 | 130.6* | 15 22.5 | [illegible] | -30.0 | [illegible] | 25.15 | 611 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 38.15 | 623 | 54.0 | -37.2 | 130.62 | 699 | 126.0* | 17 17.1 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 45.93 | 812 | 60.7 | -34.4 | 120.96 | 656 | 117.3* | 19 12.0 | 53.59 | -40.0 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 61.12 | 652 | 72.2 | -30.7 | 105.69 | 612 | 107.8* | 21 6.8 | 82.61 | -45.0 | [illegible] | [illegible] | 660 | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | 83.39 | 607 | 90.0 | -26.0 | 83.43 | 607 | 90.0 | 23 1.6 | 111.25 | -47.5 | [illegible] | 83.48 | [illegible] | [illegible] | [illegible] | 83.54 | [illegible] |
| SEPTEMBER 1[illegible], 1963 | | | | | | | | | | | | | | SEPTEMBER 1[illegible], 1963 | | | |
| [illegible] | [illegible] | 1203 | 90.0* | 30.3 | -82.36 | 1203 | 90.0* | 0 56.3 | 140.68 | 47.5 | 29.6 | [illegible] | 1170 | [illegible] | [illegible] | [illegible] | 1170 |
| [illegible] | [illegible] | 1162 | 72.1* | 36.2 | 104.30 | 1215 | 107.9* | 2 51.1 | 169.72 | 45.0 | 23.7 | -[illegible] | 117[illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | [illegible] | 1114 | 60.6* | 40.9 | -119.33 | 1204 | 119.5 | 4 45.9 | 199.75 | 40.0 | 17.3 | -45.[illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | -35.75 | 107[illegible] | 53.9* | 46.3 | -126.82 | 1198 | 126.2 | 6 40.6 | 227.79 | 35.0 | 15.[illegible] | 35.[illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| [illegible] | -28.53 | 1026 | 49.1* | 47.3 | -136.35 | 1166 | 136.8* | 8 35.4 | 256.82 | 30.0 | [illegible] | -24.63 | 945 | [illegible] | 46.5 | -[illegible] | [illegible] |
| [illegible] | -17.29 | 947 | [illegible] | 52.6 | -147.19 | 1102 | 136.5* | 10 30.2 | 285.85 | 20.0 | [illegible] | -17.[illegible] | 855 | [illegible] | 51.5 | -147.[illegible] | [illegible] |
| [illegible] | 0. | [illegible] | 39.9* | 61.[illegible] | -164.39 | 963 | 143.2* | 12 24.0 | 314.89 | 0. | [illegible] | [illegible] | 727 | [illegible] | 61.5 | -164.[illegible] | [illegible] |
| [illegible] | 17.67 | 653 | 43.[illegible] | -44.2 | 149.31 | 817 | 136.3* | 14 19.7 | 343.92 | -20.0 | [illegible] | 12.47 | 682 | [illegible] | -44.3 | 149.[illegible] | [illegible] |
| [illegible] | 28.20 | 637 | 49.5 | -39.6 | 137.99 | 748 | 130.6* | 16 14.5 | 12.96 | -30.0 | -12.3 | 28.87 | 633 | 49.5 | [illegible] | [illegible] | [illegible] |
| [illegible] | 36.15 | 720 | 54.0 | -37.1 | 130.64 | 713 | 126.0* | 18 9.2 | 41.49 | -35.0 | -14.7 | 36.26 | 598 | 54.1 | [illegible] | [illegible] | [illegible] |
| [illegible] | -5.[illegible] | 6[illegible] | 60.7 | -34.3 | 120.98 | 678 | 113.3* | 20 4.0 | 71.02 | -40.0 | -17.[illegible] | 45.[illegible] | 594 | 60.7 | [illegible] | [illegible] | [illegible] |
| [illegible] | 61.15 | 599 | 72.2 | -30.6 | 105.71 | 641 | 107.8* | 21 58.7 | 100.36 | -45.0 | -21.0 | 61.74 | 603 | 72.2 | -30.[illegible] | [illegible] | [illegible] |
| [illegible] | 83.42 | 610 | 90.0 | -25.9 | 83.46 | 610 | 90.0 | 23 53.5 | 129.09 | -47.5 | -25.6 | 83.50 | 635 | 90.0* | -25.6 | 83.54 | 635 | 90.0* |
| SEPTEMBER 11, 1963 | | | | | | | | | | | | | | | | | |
| [illegible] | [illegible] | 67.5 | [illegible] | -82.37 | 1197 | 90.0* | 30.1 | -82.41 | 1197 | 90.0* | MODIFIED ORBITAL ELEMENTS FOR EARTH SATELLITE 1963 10B1 1 | | | | | | |
| [illegible] | 104.35 | 45.0 | 24.2 | -60.41 | 1151 | 72.1* | 36.0 | -104.35 | 1215 | 107.9 | | | | | | | |
| [illegible] | 135.37 | 40.0 | 19.7 | -63.34 | 1099 | 60.6* | 40.2 | -119.35 | 1209 | 119.5 | REFERENCE TIME 1963 [illegible] 32.33 M UT | | | | | | |
| [illegible] | 230.41 | 35.0 | 16.4 | -35.81 | 1053 | 53.9* | 44.1 | -126.87 | 1193 | 126.2 | INCLINATION 47.27 DEG. | | | | | | |
| [illegible] | [illegible] | [illegible] | 13.6 | -24.54 | 1010 | 49.1* | 47.1 | -136.09 | 1171 | 136.4 | ASCENDING NODE (LONG.) 89.54 DEG. WEST | | | | | | |
| [illegible] | 280.52 | 20.0 | 8.7 | -17.91 | 924 | 43.6* | 52.4 | -147.23 | 1117 | 136.5* | PRIME SWEEP INTERVAL ONE DAY -17.01 MIN. | | | | | | |
| [illegible] | [illegible] | 0. | 0. | 0. | 782 | 39.9* | 61.6 | -164.36 | 986 | 143.2* | ARGUMENT OF PERIGEE 247.86 DEG. | | | | | | |
| [illegible] | 320.56 | -20.0 | 6.2 | 17.43 | 669 | 43.8 | -44.2 | 149.31 | 837 | 136.3* | RATE OF CHANGE -0.30092 DEG. PER PERIOD | | | | | | |
| [illegible] | [illegible] | -30.0 | -12.5 | 24.82 | 628 | 49.5 | -39.6 | 138.00 | 767 | 130.6* | ANOMALISTIC PERIOD 114.919 MIN. | | | | | | |
| [illegible] | 18.65 | -35.0 | -14.9 | 36.20 | 612 | 54.0 | -37.1 | 130.65 | 720 | 126.0* | RATE OF CHANGE -0.00047 MIN. PER PERIOD | | | | | | |
| [illegible] | 47.68 | -40.0 | -17.6 | 45.85 | 607 | 60.7 | -34.2 | 121.00 | 696 | 117.3* | ECCENTRICITY 0.06130 | | | | | | |
| [illegible] | 76.71 | -45.0 | -21.2 | 61.18 | 599 | 72.2 | -30.5 | 105.74 | 649 | 107.8* | RADIUS OF PERIGEE 4567.2 MILES | | | | | | |
| [illegible] | 105.75 | -47.5 | -25.8 | 83.46 | 614 | 90.0 | -25.8 | 83.48 | 614 | 90.0 | RADIUS OF APOGEE 5183.7 MILES | | | | | | |
| | | | | | | | | | | | RATE OF CHANGE -0.33 MILES PER DAY | | | | | | |
| | | | | | | | | | | | ASCENDING NODE (R.A.) 271.69 DEG. | | | | | | |
| | | | | | | | | | | | RATE OF CHANGE -3.31900 DEG. PER DAY | | | | | | |
| | | | | | | | | | | | LATITUDE OF PERIGEE -42.88 DEG. | | | | | | |
| | | | | | | | | | | | HEADING EXPECTED MAG. 41 | | | | | | |