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PRIORITY [REDACTED] INFO PRIORITY [REDACTED] CITE [REDACTED]

REF MISSION 1025

1. DUE TO INJECTION DISPERSIONS THE ACTUAL GROUND TRACKS AND ORBIT PROFILE ON MISSION 1225 WILL NOT BE THE SAME AS NOMINALLY PROGRAMMED. THE DISPERSIONS RESULTED IN AN ORBIT HAVING A PERIOD APPROXIMATELY 2.1 MINUTES LOWER THAN NOMINAL, A PERIGEE LOCATION APPROXIMATELY 13 DEGREES NORTH OF NOMINAL, AND A PERIGEE ALTITUDE APPROXIMATELY 2.5 MILES HIGHER THAN NOMINAL. IT SHOULD BE NOTED THAT THESE DISPERSIONS ARE WITHIN THE 3-SIGMA RANGE OF POSSIBLE DISPERSIONS FOR THIS ORBIT.

2. THE EFFECT OF THESE DISPERSIONS ON THE MISSION ORBIT PROFILE AND GROUND TRACK LOCATION IN THE PRIMARY AREA (40 N. TO 20 S.) WILL BE AS FOLLOWS:

A. THE ALTITUDE AT 40 NORTH WILL BE WITHIN PLUS OR MINUS 3 MILES OF THE NOMINAL ORBIT ALTITUDE, BEING APPROXIMATELY 2.5 MILES LOWER INITIALLY AND 3 MILES HIGHER AFTER TEN DAYS.

B. THE ALTITUDE AT 20 NORTH WILL BE WITHIN 6 MILES OF THE NOMINAL ORBIT ALTITUDE, BEING APPROXIMATELY 2 MILES HIGHER INITIALLY AND APPROXIMATELY 6 MILES HIGHER AFTER TEN DAYS.

C. THE ALTITUDE AT THE EQUATOR WILL BE WITHIN 3 MILES OF THE NOMINAL ORBIT ALTITUDE, BEING APPROXIMATELY 5 MILES HIGHER INITIALLY AND APPROXIMATELY 3 MILES HIGHER AFTER TEN DAYS.

D. THE ALTITUDE AT 20 SOUTH WILL BE WITHIN 9 MILES OF THE

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In Accordance with E. O. 12958

on NOV 26 1997

NOMINAL ORBIT ALTITUDE, BEING APPROXIMATELY 7 MILES HIGHER INITIALLY AND APPROXIMATELY 9 MILES HIGHER AFTER TEN DAYS.

E. THE ACTUAL GROUND TRACK IS DIVERGING FROM THE NOMINAL GROUND TRACK AT THE RATE OF LESS THAN 1 N.M. PER REF TO THE EAST BASED ON THE CURRENT BREAKWELL ELEMENT DATA.

3. IT SHOULD BE NOTED THAT THERE IS NO MEANS OF COMPENSATING FOR ITEMS A THROUGH D ABOVE SINCE THEY ARE ENTIRELY DEPENDENT UPON THE ACTUAL ORBIT PARAMETERS ATTAINED. ITEM E ABOVE WILL RESULT IN A GAP OF APPROXIMATELY 55 N.M. BETWEEN THE DAY TEN AND DAY ONE GROUND TRACKS. WHILE DEACTIVATION MIGHT BE CONSIDERED AS A POSSIBLE MEANS OF REALIGNING THE ACTUAL AND NOMINAL GROUND TRACKS IT WILL NOT ELIMINATE THE GAP BUT WILL SIMPLY CHANGE THE LOCATION OF THE GAP WITHIN THE TOTAL COVERAGE PATTERN.

4. DEACTIVATION HAS BEEN STUDIED BY PERSONNEL AT [REDACTED] AND IS CONSIDERED HIGHLY UNDESIREABLE ON MISSION 1325 FOR THE FOLLOWING REASONS:

A. DAY 11 WILL EXCEED THE PRESENT VEHICLE THERMAL LIMITATIONS WHICH WILL RESULT IN A PROBABLE OVERHEATING OF THE LIFEBOAT (EMERGENCY RECOVERY SYSTEM) GAS BOTTLE. THIS IS AN EXTREMELY UNDESIREABLE SITUATION AND IT MUST BE NOTED THAT LIFE BOAT PERFORMANCE CAN NOT BE ASSURED ON DAY 11.

B. AS THE MISSION PROGRESSES THE MOST NORTHERN LATITUDE FOR ACCEPTABLE PANORAMIC CAMERA EXPOSURE MOVES CLOSER TO THE EQUATOR. THEREFORE, IN ORDER TO ASSURE THE BEST POSSIBLE PANORAMIC CAMERA

EXPOSURE OVER THE PROGRAMMED RANGE OF LATITUDES THE MISSION SHOULD NOT BE DEACTIVATED.

C. SINCE THE PERIOD DISPERSION IS WELL WITHIN THE 3-SIGMA RANGE OF POSSIBLE PERIOD DISPERSIONS FOR THIS ORBIT AND, SINCE THE PROBLEM OF GAPPING IN THE TOTAL LAND MASS COVERAGE CAN NOT BE SOLVED BY DEACTIVATION, LITTLE CAN BE ACTUALLY GAINED BY DEACTIVATION.

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