DUT 26822

TOPSECRET

PRITY 5824 25X1 25X1

5552 (OUT 26301) FOLLOW-UP ON

25X1

ERRORS IN BINARY CLOCK SYSTEM 9041 DISCOVERED WHILE CORRELATING FRAMING CAMERA TO MAIN CAMERA SYSTEM BY TIME. ALL OF 9041 HAS BEEN CHECKED, BOTH FWD AND AFT. HAVE ALSO CHECKED BACK THROUGH 9038, FWD AND AFT. THE PROBLEM INVOLVES COMPLETE SINGLE LIGHT FAILURE AND WEAK LIGHTS.

3. SPECIFIC EXAMPLES FOLLOW:

9041 FOWARD CAMERA: Α.

: 8

- (1) LIGHT 15 FAILED TO OPERATE AFTER FRAME ONE, PASS THIS PRODUCED SYSTEMATIC ERROR IN FINAL READINGS OF 16.384 ONE. SECONDS IN APPROX. ONE-HALF OF ALL THE FRAMES IN THE MISSION.
- LIGHT 23 FAILED TO OPERATE DURING THE MISSION, REPRESENTING AN ERROR OF 4194.304 SECONDS THAT WOULD BE INTRODUCED WHEN THE CLOCK REACHED THAT TIME WHERE THIS AREA OF THE READ HEAD SHOULD HAVE LIT UP BUT DID NOT.
 - LIGHT 19 FAILED AFTER FRAME ONE OF PASS 50.
- WHEN LIGHT ONE WAS SUPPOSED TO BE OFF IT DID NOT COMPLETELY BLACK OUT. LIGHT CONTINUED SHOWING BRIGHT IN ABOUT 1/4 THE CIRCLE WHILE THE REMAINING 3/4 CIRCLE WAS BLACK. WHEN IT CAME ON IT WAS LOUD AND CLEAR.
- (5) LIGHT 19 WAS OVER-ALL GRAY IN TONE WHEN LIGHT WAS OFF, CLEAR WHEN ON.

25X1

-2-

- (6) LIGHT 17 WAS OVER-ALL GRAY IN TONE WHEN IT WAS ON, BLACK WHEN OFF.
- (7) ITEMS (4), (5), (6) ABOVE CAUSED PROBLEMS FOR BOTH MECHANICAL READER AND HUMAN READER.
- B. 9041 AFT CAMERA, NO LIGHT FAILURES. THIS COMPLETES THE INFORMATION ON 9041.
- C. MISSION 9038: WE HAVE ALSO DONE A DETAILED INVESTIGATION WITH RESULTS AS FOLLOWS:
- (1) 9038 FWD CAMERA, LIGHT 4 FAILED THROUGHOUT THE MISSION. LIGHTS 8 AND 11 DID NOT OPERATE SATISFACTORILY DURING THE MISSION. PERIODICALLY THEY REGISTERED AS AN OVER-ALL GRAY TONE WHEN THEY SHOULD HAVE BEEN OFF.
 - (2) 9038 AFT CAMERA, NO LIGHT FAILURES.
- (3) DURING MISSION 9038 THERE WAS A PECULIAR CLOCK REACTION. THE CLOCK MAINTAINED REGULAR PROGRESSION UNTIL THE END OF PASS D-7. THEN AT THE START OF $\mathbb R$

PASS 8, BINARY TIME SHOWED A CLOCK REGRESSION, REPEAT REGRESSION, OF 135,351 SECONDS, BUT FROM THIS POINT TO THE END OF THE MISSION THE CLOCK PROGRESSION WAS REGULAR AND CHECKED AGAINST EPHEMERAL TIME. WE ARE AT A LOSS TO ACCOUNT FOR THIS 135,351 SECONDS CLOCK REGRESSION.

TOPSECRET

CFN: 5824 -X 5552 9041 9041 FWD AFT 9038 FWD AFT 9041 15

16.384 SECONDS 23 4194.304 SECONDS DID NOT 19 50 NOT COMPLETELY

1/4 3/4 19 17 (4) (5) (6) 9041 9041 9038 9038 4 8 11 NOT OPERATE

9038 9038 D-7 8 REGRESSION REPEAT REGRESSION 135.351 135.351