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1965 NOV 18 23 32Z
25X1



SUBJ MISSION 1026 PHOTOGRAPHIC EVALUATION INTERIM REPORT (PEIR)

REF A [redacted] 2924

25X1

B [redacted] 2969

Declass Review by NGA

C [redacted] 763 (MISSION 1025 PEIR)

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1. NUMERICAL SUMMARY

MSN NO AND DATES: 1026-1, 28 OCT - 2 NOV 65; 1026-2, 2-7 NOV 65

19 NOV 1965

LAUNCH DATE: 28 OCT 1965

VEHICLE NO: 1620

CAMERA SYSTEM: J-25

PAN CAMERA NOS: FORWARD LOOKING (MASTER) 174; AFT LOOKING (SLAVE) 175

MSN 1026-1 S/I NO: D75/92/93

MSN 1026-2 S/I NO: D72/89/85

RECOVERY REVS: D81 AND D160

2. CAMERA SETTINGS

FORWARD LOOKING: 0.225 INCH SLIT, WRITTEN 25 FILTER

AFT LOOKING: 0.150 INCH SLIT, WRITTEN 21 FILTER

3. PERFORMANCE SUMMARY

THE IMAGE QUALITY OF THE PHOTOGRAPHY PRODUCED WAS GOOD BUT NOT EQUAL TO THE QUALITY OF THE PREVIOUS TWO MISSIONS (1024, 1025). THE MISSION WAS EXTENSIVELY AFFECTED BY ATMOSPHERIC CON-

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DITIONS, AND LOW SOLAR ELEVATIONS. THE PHOTO INTERPRETERS CONCUR WITH THIS ANALYSIS. THE BEST GROUND RESOLUTION OBTAINED FROM HIGH CONTRAST CORN TARGET DISPLAYS [REDACTED] AS READ FROM THE SECOND GENERATION DUPE POSITIVES. FOR THE FIRST TIME ORIG NEGS WERE AVAILABLE FOR GROUP READING AND THE RESULTS WERE APPROXIMATELY ONE TARGET ELEMENT BETTER THAN THE DUPE POSITIVES.

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4. ANOMALIES

ANOMALIES INCLUDING THOSE REPORTED IN THE [REDACTED] MESSAGES (REF A AND B) WERE REVIEWED.

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A. MISSING CAMERA NUMBER, INDEX LAMPS, BINARY WORD, HORIZON IMAGERY AND FIDUCIALS ON AFT LOOKING (SLAVE CAMERA) 1026-1.

CAUSE: INTERMITTENT OPERATION OF THE CENTER OF FORMAT SWITCH.

ACTION: RE-EVALUATE ADJUSTMENT PROCEDURES. (1)

B. CREASE ON FRAMES 43 TO 46 ON PASS D100 OF THE FWD LOOKING CAMERA.

CAUSE: MOMENTARY HESITATION IN FILM UNWINDING DUE TO MANUFACTURER'S SPLICE CAUSING TENSION TRANSIENT. COMPRESSIVE FORCES CAUSE ADHESIVE IN SPLICING TAPE TO COLD FLOW.

ACTION: CONTINUE INVESTIGATION OF SPLICING METHODS.

(1)

C. LIGHT LEAKS

CAUSE: SUPPLY CONIC TO AFT BARREL INTERFACE; AFT AND FWD LOOKING CAMERA DRUM AREA; SRV NO. 1 ABLATIVE SHIELD.

ACTION: (A) SUPPLY CONIC TO AFT BARREL INTERFACE

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- CONTINUE CAREFUL PRE-FLIGHT CHECKOUT. (1)

(B) AFT AND FWD LOOKING CAMERA DRUM AREA - OPAQUING MATERIAL WILL BE APPLIED TO THE DRUM LIGHT SEAL LAMINATION ON FUTURE INSTRUMENTS (1)

(C) ABLATIVE SHIELD - A FILM CHUTE WILL BE ADDED ON ALL INSTRUMENTS BEGINNING WITH J-34, POSSIBLY J-30. (1)

D. VEILED HORIZON IMAGERY ON TAKE-UP SIDE OF FWD LOOKING CAMERA PASS D3 THROUGH D14; AND ON SUPPLY SIDE OF AFT LOOKING CAMERA PASS D1 THROUGH PASS D110.

CAUSE: UNKNOWN.

ACTION: UNDER INVESTIGATION.

E. EXCESSIVE EXPOSURE AND FLARE ON HORIZON IMAGERY ON TAKE-UP SIDE OF FWD LOOKING CAMERA OF MISSION 1026-2.

CAUSE: EXCESSIVE EXPOSURE APPEARED TO BE CAUSED BY HIGH REFLECTION SCENES ON SUN SIDE OF VEHICLE. FLARE APPEARED TO BE CAUSED BY SOME OBJECT IN THE LENS CONE ANGLE.

ACTION: NONE.

F. TWO STELLAR FRAMES CONTAINING NO EXPOSURE AND TWO FRAMES OF OVER-EXPOSED STELLAR IMAGERY.

CAUSE: FOUR STELLAR SHUTTER MALFUNCTIONS. TWO FAILED CLOSED; TWO FAILED PARTLY OPEN.

ACTION: INVESTIGATE PAST TEST HISTORY AND STELLAR SHUTTER CONFIGURATION. (1)

G. SMEARED IMAGERY ON PASS D87 MISSION 1026-2.

CAUSE: V/H PROGRAMMER WAS NOT STARTED ON THIS PASS DUE TO A COMMAND ERROR.

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ACTION: FORMALIZE COMMANDING PROCEDURES.

H. CODE FOR ACTION ITEMS:

(1) TO BE ACCOMPLISHED BY CONTRACTORS WITHOUT FURTHER DIRECTION.

(2) RESPONSIBILITY

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(3) REQUIRES FURTHER DIRECTION OF PROGRAM MANAGEMENT.

5. COMMENTS

A. YARDLEIGH VS TRENTON PROCESSING - BECAUSE OF THE HIGH PERCENTAGE OF FULL PROCESSING IT WAS IMPOSSIBLE TO EVALUATE THE ADVANTAGES OR DISADVANTAGES OF THE FRAME-BY-FRAME CAPABILITY OF THE YARDLEIGH PROCESSOR. THERE WAS NO NOTICEABLE DIFFERENCE IN THE QUALITY OF THE MATERIAL PROCESSED IN EITHER MACHINE. THE TEAM RECOMMENDS THE FOLLOWING PROCESSING PROCEDURE ON MISSIONS 1027-1 AND 1027-2:

(1) 1027-1 PROCESSING - APPROXIMATELY THE FIRST HALF OF THE FORWARD LOOKING PANORAMIC CAMERA RECORD BE TRENTON PROCESSED AND THE LAST HALF OF THE FORWARD LOOKING RECORD BE PROCESSED IN THE YARDLEIGH. THE FIRST HALF OF THE AFT LOOKING RECORD BE YARDLEIGH PROCESSED AND THE LAST HALF OF THE AFT LOOKING RECORD BE TRENTON PROCESSED.

(2) 1027-2 PROCESSING - APPROXIMATELY THE FIRST HALF OF THE FORWARD AND AFT PANORAMIC RECORD BE TRENTON PROCESSED AND THE LAST HALF OF EACH RECORD BE YARDLEIGH PROCESSED.

B. THE DENSITIES OBSERVED IN MISSION 1026-1 AND 1026-2

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ORIGINAL NEGATIVES WERE LOWER THAN NORMALLY OBSERVED ON PREVIOUS
MISSIONS EVEN THOUGH THIS MISSION RECEIVED PREDOMINATELY FULL
PROCESSING.

T O P S E C R E T

--END OF MESSAGE--