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26 July 1961

PHOTOGRAPHIC EVALUATION REPORT

Mission No: 9017
Camera No: 16
Film Type: J 22-7600

Photo Date: 16 June 1961
Filter, Main: W 21
Evaluated by: [redacted]

Evaluation No: FE 70-61
Filter, Horizon: W 25

1. Shutter Operation:
   a. Left horizon - good
   b. Right horizon - good

2. Slit Operation (main): Good

3. Camera Number (Image Quality): Good

4. Digitote Operation:
   The digitote "jumped" due to oscillator malfunction on frame 68, pass 9; frame 114, pass 23; and frame 51, pass A33. The digitote was slightly erratic between the first and second frames of some passes - example frames 01, 02 pass 2. This may be an indication of a decreased scan rate of the camera chimney at the instant of camera on, due to inertia. Digitote image was sharp and distinct.

5. Film Metering: .31" - .55"; Average .39"

6. Film Tracking: Good

7. Timing Pulse:
   Image was moderately sharp. Possible image obstruction or uneven burning resulted in an occasional split registration. An Oscillator malfunction caused double pulsing on frame 68, pass 9; frame 114, pass 23; frame 51, pass A33. The timing pulses were closely spaced at beginning of the sweep on the first frames of some passes indicating a gradual build up of chimney speed to normal rate.

8. Shrinkage Markers: Fairly sharp. The measured distance between shrinkage markers along the X axis averaged 28.054 inches.

9. Fiducials:
   a. Main Camera - main fiducials were sharp and distinct. Right end fiducial was slightly ragged but left end fiducial was sharp.
   b. Horizon Cameras - fiducials were sharp and distinct.

10. Flare: None observed

11. Light Leaks: Noted on frame 39, pass 19; frames 42, 44, pass A28; frames 01, 02, pass A32; intermittent edge fog present after pass 23.

12. Forward Overlap: 07 to 25% Average 17%

13. Static Electricity: Noted on frame 02, pass A18; frames 53, 54, pass 2.

14. Pinholes: Infrequent

15. Abrasions and Scratches: Numerous fine scratches throughout, particularly on leading and trailing edges, outside of the format. Small bits of emulsion have been lifted on approximately 60 frames. Deep but short scratches or digs noted on approximately 40 frames.

16. Tearing: None observed

17. Processing Streaks: Very few

[redacted]

18. Pressure Marks (diagonals): Negative density diagonal streaks were scattered throughout mission, particularly noticeable at the beginning of passes. This may be indicative of stress on film at instant of camera on.

19. Water Marks: Very few; however small chemical stains were noted on approximately 20 frames.

20. Blistering and Frilling: Blisters were noted on approximately 15 frames. No frilling was observed.

21. Density: Medium on descending passes, thin to medium on ascending passes.

22. Contrast: Medium on descending passes, low to medium on ascending passes.

23. Apparent Resolution: Considerable improvement over Missions 9009 and 9013.

24. Apparent Granularity: Very fine

25. Photo Quality: Good
a. Degradation due to negative density diagonal pressure streaks, desensitized spots and negative density spots within and along trailing edge of format.

26. Suitability for PI: Good
a. Degradation due to atmospheric conditions and low sun angle.

Remarks:

1. The leading edge of the main format was indistinct throughout the mission. The trailing edge was sharp but became increasingly ragged right of the center fiducial as the mission progressed.

2. The negatives were very thin at the beginning of the ascending passes due to low sun angle.

3. Creases were noted on nine frames, foreign material on five frames.

4. A malfunction occurred between passes that caused extra exposure on a portion of the last frame of one pass and the first frame of the next pass. The following passes were affected: 2, 3, 4, 5, 7, 8, A12, A13, A17, 19, 20, 21, 24, 25, A28, 30, A32, A33.

5. A malfunction occurred occasionally either at the end of one pass or the beginning of the next pass causing a blank frame. This frame was attached to the end of the first pass by the titlers even though no possible means could be used to ascertain its true position. These frames may be seen on the ends of passes 2, 4, 15, 21, 22, A33 and at the camera off position of the split pass 6, frame 54 as well as the last frame of pass 6 (81).

6. Double pulsing noted on frame 114, pass 23; frame 51 pass A33; frame 68, pass 9.

7. A wide silver colored manufacturing splice was noticed between frame 03, and 04, on pass 7; and in frame 04, pass A18. There was a heat seal splice within frame 21, pass 33. An adhesive tape trace was noted on frame 21, pass 33.

8. A negative density streak was noticed along the X axis of the main format on frame 07, pass 8; frames 4, 29, pass 24; and frame 6, pass A28.

9. A vertical negative density streak was noted on frames 118, 119, 120, pass 9; frames 01, 02, pass A18; and frames 1, 185, pass 24.

10. A vertical heavy density streak was noted on frames 47-55, pass 23; and frames 152 to 186, pass 24.

11. A horizontal heavy density streak was noticed on frames 141-186, pass 24.

12. Considerable tip was noted in the last few frames of pass 33 indicating initiation of recovery sequence.

Special Note (to accompany remarks of 9017)

An examination of the preflight reveals numerous fogged frames at the beginning, no registration of the main and horizon formats or main fiducials. There is sharp registration of the horizon fiducials, digitote and time pulses. Average interval of the digitote is 4.4 seconds with an average of 119 time pulses per frame.

Pass 1 is an engineering pass and contains 19 titled frames. There is sharp registration of the main and horizon formats, main and horizon fiducials and digitote. The time pulses vary in intensity and vary in number recorded from 111 per frame at the beginning of the pass to 80 per frame at the end of the pass. Horizon format is slightly thin probably due to atmospheric conditions. Average interval of the digitote is 3.1 seconds.

Pass 9 is an engineering pass and contains the equivalent of 11 untitled frames. There is a sharp registration of starboard horizon format, all horizon fiducials and digitote. There is no registration of the main format or port horizon format or main fiducials. Average interval of the digitote is 3.7 seconds. Timing pulses vary in intensity with an average of 99 pulses per frame.