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1 December 1961

PHOTOGRAPHIC EVALUATION REPORT

Mission No: 9028 Photo Date: 15 November 1961 Evaluation No. FE 103-61
Film Type: J 22-7600 Filter, Main: W21 Filter, Horizon: W25 A
Camera No: 25 Evaluated by: [redacted]

1. Shutter Operation:
   a. Port horizon - Good
   b. Starboard horizon - Good
   Port horizon appeared underexposed in Northern latitudes.

2. Slit Operation (Main): .2" - Good

3. Camera Number: Good

4. Digitote Operation: Nonoperational - erratic through pass 6 and then failing completely.

5. Film Metering: Average, 0.23". First and last frame of every pass has erratic metering.

6. Film Tracking: Normal

7. Timing Pulses: Distinct but comet shaped. 66-127 "pips" per frame.

8. Shrinkage Markers: Distinct

9. Fiducials:
   a. Main Camera: Ragged and indistinct throughout mission. New fiducials were noted along the trailing edge of the format 0.6" in from the left and right edges.
   b. Horizon Cameras - Sharp with little or no flare.

10. Flare: None noted

11. Light Leaks: Light leaks were noticed on the first two and last three frames of every pass that was not preceded by an engineering pass.

12. Forward Overlap: 05-15%, Average 10%

13. Static Electricity: Pass 15, frames 03, 04, 34, 35, 36; pass 17, frames 32, 33; pass 18, frame 41.

14. Pinholes: Numerous throughout mission - average two pinholes per frame.

15. Abrasions and Scratches: Scratches and digs were noted on pass 01E, entire pass; pass 02, frames 03, 27-29, 37; pass 05, frames 32, 63, 78; pass 06, frames 32, 43, 55, 91; pass 07, frames 09, 102, 124; pass 08, frames 40, 77, 94, 145, 164; pass 15, frame 22; pass 17, frame 32; pass 18, entire pass.

16. Tearing: None

17. Processing Streaks: None noted

18. Pressure Marks: Numerous desensitized spots were noted indiscriminately throughout the mission. Thin white desensitized streaks were noticed on pass 02, frame 05; pass 07, frame 07. Diagonal pressure streaks caused by camera rollers were noted intermittently throughout the mission, usually at the beginning and end of passes.

19. Water Marks: None noted

20. Blistering and Frilling: Blisters were encountered on pass 01E, several frames; pass 05, frames 77, 79, 106; pass 06, frames 72, 73, 74, 102, 103, 154; pass 07, frames 57, 131; pass 08, frames 29, 30, 122, 135.

21. Density: Heavy 40%, medium 60%.
    a. Heavy density was due to atmospheric conditions, snow and terrain.

22. Contrast: Low 40%, medium 60%.

23. Apparent Resolution: Good. Resolution appeared comparable to Missions 9017 and 9019.

24. Apparent Granularity: Slightly coarse compared to Missions 9022, 9023, 9025 but comparable to 9017 and 9019.

25. Photo Quality: Good
    a. Degradation due mainly to heavy density and graininess.

26. Camera Operation: Fair
    a. Degradation due to light leaks, "slippage" and faulty digitote.

27. Suitability for PI: Poor 30%, fair 40%, good 30%
    a. Degradation due mainly to atmospheric conditions (cloud cover).

Remarks:

1. Crimps and creases were rare, occurring only on pass 08, frames 160, 161 and on a few indiscriminate frames throughout the mission. Edge rippling was noticed on pass 02, frames 01-39.

2. Bits of emulsion was lifted from pass 02, frames 09, 33; pass 05, frame 20; pass 06, frame 83.

3. Some type of slippage occurred after the camera was turned off. Some fogging with "ghost" fiducials was noticed on the first and last frames of every pass.

4. The leading and trailing edges of every frame appeared ragged and indistinct, possibly due to a collection of emulsion flakes adhering to the rails.

5. Emulsion flaking was noticed throughout the mission.

6. Titling lacquer bled into the format area throughout pass 02 and on frame 107 of pass 05.

7. A pattern of two desensitized spots 1" apart occurred every 2.4" along the trailing edge of the film, outside of the format. These could be noticed only on fogged frames.

8. Excellent results were obtained from the new "idents" installed on the beginning and end of all passes at the processing site.

9. One horizon camera appeared to be out of its true position, making it difficult to accurately compute pitch and roll.

10. Density readings were made on every pass using the Eastman Kodak Reflection - Transmission Color Densitometer Model RT. Absolute values read for the D maxs and D mins, as well as the base fog, are as follows:

Pass No.	Frame	D Max	D Min	Base Fog
01E	05	2.70	1.05	0.08
02	01	1.36	0.22	0.10
	18	1.93	0.22	0.08
	36	2.05	0.20	0.07

Pass No.	Frame	D Max	D Min	Base Fog
05 (1)	07	----	0.22	0.10
05 (2)	19	1.60	0.32	0.09
	57	2.57	0.55	0.08
	79	2.40	0.64	0.07
06	04	1.68	0.35	0.08
	152	2.90	0.18	0.08
	226	2.85	0.56	0.08
07 (1)	01	2.12	0.72	0.08
	27	1.48	0.51	0.08
07 (2)	29	1.66	0.36	0.07
	74	2.57	0.59	0.07
	117	2.78	0.79	0.07
08	05	1.75	0.51	0.08
	131	2.40	1.65	0.08
	171	2.25	0.45	0.08
09	01	1.50	0.17	0.09
	72	2.34	0.57	0.07
	95	2.65	0.32	0.08
10	04	1.85	0.50	0.08
	31	2.22	0.49	0.08
15	05	2.27	0.55	0.09
	31	2.90	1.07	0.08
17	07	1.46	0.32	0.07
	27	2.03	0.47	0.08
18	06	0.97	0.28	0.07
	38	2.04	0.27	0.07

D Max range 2.90 - 0.97 **Average** 2.11

D Min range 1.65 - 0.17 **Average** 0.50

Base Fog range 0.10 - 0.07 **Average** 0.08

Range 2.90 - 0.17

Average 1.29

Minimum D Min to Maximum D Max = 2.73

Average D Min to Average D Max = 1.61