



**SUBJECT: Photo Reconnaissance Systems Report No. 15**

splices of each type were stopped near the core to evaluate cut and wrap. No splice failures of either type occurred, and inspection of all splices after testing revealed no deficiencies.

The ultrasonic splice performed equally as well as the Mylar splice in film 3404 and SO-380 in the following "bench" type dynamic tension tests:

- a. Edge load - straight film roller test
- b. No edge load - film half twist roller test

No failures occurred.

The ultrasonic splice did not perform as well as the Mylar splice in film type 3404 or SO-380 in the edge load roller test with film in a half twist. No Mylar splice failure occurred. Five ultrasonic splices failed plus three additional ones developed tears.

The ultrasonic splice performed as well as the Mylar splice using 3404, but not so with SO-380.

The ultrasonic splices contained no adhesive bleeding whereas the Mylar adhesive bleeding usually stuck adjacent film wraps together.

In summary, performance of the ultrasonic splice was usually, but not always, equal to the Mylar splice. The ultrasonic splice failures mentioned above occurred at film tensions somewhat higher than expected in a normal J-3 camera system. In any event, more testing will be accomplished before consideration is given to incorporating the ultrasonic splice into a certified flight load for operational use.

**B. Problems**

1. Constant tension assembly with additional roller approved for CR-9.
2. T/U flange problem evaluation continues.

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3. Potentiometer utilized in slit width assembly was responsible for CR-9 flight preparation problem. After inspection, new "pot" was installed and is satisfactory. Switch programmer on CR-9 was replaced because of early "time-out" not attributable to the Haydon timer.

C. Projected Status

- 1. CR-9. Acceptance tests at Vandenberg Air Force Base successfully completed. Mating to be accomplished on 21 November.
- 2. CR-10. Block preps.
- 3. CR-11. HIVOS.
- 4. CR-12. Tracking.
- 5. CR-13. Acceptance.

D. Future Activities

- 1. 21 November - Review of A/P move and management plans at Headquarters.
- 2. 25 November - R-1 meeting at Vandenberg Air Force Base.
- 3. 26 November - CR-9 launch.

II.

[REDACTED]

A.

[REDACTED]

1.

[REDACTED]

[REDACTED]

[REDACTED]

**\*\*\*NOTICE OF REMOVED PAGES\*\*\***

**Pages 4 through 10 are not provided because their full text does not contain CORONA, ARGON, LANYARD programmatic information.**