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Declass Review by NGA.

ELECTROPHOTOGRAPHIC PROCESSING TECHNIQUES

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CONTRACT NO. [REDACTED] TASK ORDER NO. 03(100,762)65-R

Monthly Narrative Report - March 1966
(Covering the period February 23 to March 22, 1966)

A. Current Status of Work

1. Second Interim Technical Report

The preparation of the Second Interim Technical Report took place during this monthly period. Drafts of all the sections of the report were completed. Editing and publication of the report will be finished during the next monthly period.

2. Electrical-Chemical Processing

With respect to real imagery processing, further use was made of a phase contrast microscope to increase the recognizability of the bar target and the aircraft markings in Frame number 46572 of the 5 inch AFSPPL film. An increase in contrast and new density limits were obtained using the microscope's phase-amplitude modification capabilities. This resulted in considerably improved images.

Preliminary use was also made of the [REDACTED] "L" Target Resolution Standard supplied by the customer. Preliminary tests were made on the Miller-Holzwarth printer to determine the maximum printing resolution for S0278 and 3404 films. Determination of maximum resolution capability requires further testing with critical exposure and chemical processing controls.

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Further modifications were made to the CRT modulated light printer. Circuitry changes in the feedback loop and the replacement of a regulated power supply were the major changes. Additional debugging took place in order

2. Electronic Processing

- a. Complete all wiring on high resolution electronic processor.
- b. Test and adjust the system as necessary.
- c. Make measurements of contact and masking resolution of the system.
- d. Start printing experiments, in particular, by repeating those experiments previously conducted with the low-resolution breadboard.

3. Techniques Analysis

- a. Complete check out tests of model.
- b. Apply model, if possible, to analyze results of processing with the low-resolution electronic processor, a film viewing table, and the CRT contact printer.

D. Status of Fund Expenditures to End of Month

Funds expended (and committed) at break even level to March 27, 1966, are shown below along with a proportional share of the base fee:

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E. Documentation of Verbal Commitments and/or Agreements During the Period

At a meeting in Washington, February 23, 1966, was given verbal permission to proceed with the purchase of the dichroic mirror and the 2000 volt power supply it had requested for the high resolution electronic processor.

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