

SECRET

MONTHLY REPORT



25X1

PAR 211

22 Jan 65

SUBJECT: Microdensitometer Study of Effects of Processing

TASK/PROBLEM

1. Collect and study microdensitometric data from mission materials in an attempt to determine the effect of film emulsions, processing, and printing on the characteristics of image edges. Also, attempt to determine true location of image edges for mensuration purposes.

DISCUSSION

2. Collection of test data on acutance and granularity was completed for Type 4400, 4401 and 4404 films processed under Trenton machine conditions and under the special processing conditions chosen for this part of the project. There was a total of seven processing conditions in the following three categories:

a. The three established levels of processing development on the Trenton (Primary, Intermediate and Full).

b. Two test conditions with different specially formulated developers for high sharpness.

c. Two test conditions with different specially formulated developers for low graininess.

Data are now under evaluation for summarizing in the Third Quarter Report.

3. Measurement of low contrast resolving power and modulation transfer function was continued. Measurements on Type 4400, 4401 and 4404 films processed under the above conditions were made as a part of this effort. Added cost to do the necessary work in this area has been estimated and discussed in a Supplementary Proposal (No. 3) which was initiated during the period.

4. Seven proposed briefing aid designs were completed for submission to the customer.

Declass Review by NGA.

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PLANNED ACTIVITIES

5. Continue work on mensurational aspects of the PAR.
6. Complete the collection of data on low contrast resolving power and modulation transfer function measurements for aerial acquisition films.
7. Begin image quality studies of Type 8430 and 5427 duplicating film processed in the Dalton machine.
8. Make aerial scene simulations at scales of 1:100,000 and 1:300,000.
9. Include large scale (1:23,000) simulation and medium contrast resolving power measurement upon approval of Supplements No. 1 and No. 2 submitted to cover these efforts.
10. Complete preparation and submit Supplement No. 3, Addition of Low Contrast Resolving Power and Modulation Transfer Function as Image Quality Measurements.
11. Respond to customer guidance on proposed briefing aids.