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NPIC/P&DS/D/6-1429
17 June 1966

MEMORANDUM FOR: Executive Director, National Photographic Interpretation Center

SUBJECT: Rapid Interpretation Printer-Processor

1. This memorandum contains pertinent information to assist in determining the propriety of purchasing additional units of the subject equipment at this time. The Plans and Development Staff has completed its preliminary evaluation of the prototype model RIPP-101 Rapid Interpretation Printer-Processor built by the [redacted] 25X1
Due to time restrictions, we were not able to evaluate the prototype equipment against all of the specifications (copy attached) which will be required of the production models nor was the contractor able to make all of the necessary modifications which would be incorporated in production models. If production models are purchased, the Equipment Performance Section, Development Branch, will test each unit against these specifications.

2. In response to operating difficulties encountered during the first evaluation of the Rapid Interpretation Printer-Processor, the Contractor modified the unit and returned it to NPIC on 26 May 1966. The chain drive which had been a persistent cause of failure has been improved on the modified unit and has not failed since its installation. However, some elastomeric components failed after 600 hours of operation and caused several copies to jam in the unit. Specifications for the units to be purchased require a minimum of 200 hours of trouble free operation for each unit and an average of 400 hours before acceptance. With periodic preventative maintenance by trained maintenance technicians, the new units should provide reasonably satisfactory mechanical performance.

3. Results of a test by [redacted] of our staff indicated that 25X1
this unit is capable of producing copies with a maximum density of 1.9, minimum density of 0.05, a gamma of 2.0 and a resolution of 200 lines per millimeter. The maximum useful dynamic range is reached at an input contrast ratio of 30 to 1.

4. A test for ammonia concentration was conducted under the supervision of [redacted] of our staff. The concentration as measured 25X1
at various locations in a room in which the unit was operating did not exceed 20-30 parts per million. This is below the tolerance level of 100 parts per million as specified by industrial standards. When the

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safety features described in the attached specifications are incorporated, the unit will be safer to operate. However, all operating personnel should be alerted to the hazards involved and should learn to recognize the symptoms of overexposure to ammonia fumes. In addition, only properly instructed individuals should be permitted to change ammonia bottles or to regulate ammonia pressures on the unit. The Plans and Development Staff has ordered instrumentation for measuring the concentration of ammonia in air and expects to make frequent checks on all NPIC equipment using ammonia to assure their safe operation.

5. The Plans and Development Staff does not object to the purchase of the Model RIPP Rapid Interpretation Printer-Processor as described in the attached specifications providing that it is recognized that safety precautions must be exercised in the operation of the equipment and that more than average maintenance and down time can be expected. This maintenance may be of such a nature that it cannot be performed by operating personnel and will probably require trained maintenance technicians or factory representatives.

6. The Plans and Development Staff views this equipment as a prototype which is not considered to be optimum in design. We feel that more satisfactory units can be developed with further effort and are incorporating approaches to meet this requirement in the FY-1967 budget.

25X1

[redacted]

Colonel, USAF
Assistant for Plans and Development, NPIC

Attachment:
Specifications of Subject dated
7 June 1966

Distribution:
Original and 1 - Addressee
1 - NPIC/Asst. for Ops
1 - NPIC/SS/LB
3 - NPIC/P&DS/DB ✓

NPIC/P&DS/DB: [redacted] (15 June 66)

25X1