

IPO/OSB/M-43/65  
5 October 1965

Declass Review by NGA.

MEMORANDUM FOR: Assistant for Plans and Development, NPIC  
SUBJECT: Requirement for Print Enlargements  
REFERENCE: IPO/OSB/M-35/65, Dated 4 August 1965

25X1 1. The P&DS was contacted in response to a suggestion by [redacted] Deputy Director, NPIC, that the photo-  
interpreters have available to him a means of enlarging dup-  
licate positive transparencies. The referenced memorandum re-  
requested P&DS to investigate the applicability of the enlarger  
used by NHTSC for enlargement of transparencies. No formal  
request for development was to be made until it was established  
that no commercial enlarger or government-sponsored equipment  
was now available for our use. [redacted]

25X1 [redacted] were questioned concerning the availability of this  
equipment on Wednesday, 25 August 1965. According to [redacted]  
the Naval Photographic Center now uses an enlarger but it is  
limited in format coverage to 70 mm film. Samples taken from  
the duplicate positive transparencies were poor in quality.

25X1 [redacted] stated that other samples that he had seen approached  
the polaroid camera in resolution capabilities and that he  
would try to get some samples for our evaluation. None have  
been received to date. All of these negative prints, he stated,  
were from duplicate positive transparencies. No capability for  
duplicate positive-to-positive prints were available with this  
equipment.

2. To further establish the type of enlarger that would be  
of interest to the Photographic Analysis Group, the following  
performance characteristics are desired:

a) Heat processed rather than chemical, although  
this is not essential.

b) Dimensions should be such that small elevating  
table mounting would not be inconvenient. This means ap-  
proximately 2-feet by 3-feet and a depth not to exceed  
2 feet.

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- c) Magnification from seven to ten diameters.
- d) Reproduction of print should be available from any area on a 9 x 18 image format.
- e) Image area to be reproduced is approximately two-inches by three-inches maximum.
- f) Resolution should be no less than 80 lines per mm which is comparable to that obtained from polaroid photographs.
- g) Gray-scale range from 0.10 to 2.0 would be desirable.
- h) A positive-to-positive print with a processing time not to exceed  $\frac{1}{2}$ -minute.

3. The Photographic Analysis Group would be interested in any survey made by the Plans and Development Staff concerning the availability of a printer/processor that would enable confirmation of data with the possibility of additional interpretable data being available from the enlarged prints. A saving in time would be realized if the instrument were available to the PI in his immediate area for production of prints, instead of the present procedure of ordering prints from the Photo Lab. The immediate availability of these prints will not, however, replace the requirement for Photo Lab support. Although the Polaroid camera is now used when possible, its coverage is limited to a 1.1" x 1.4" object area on the Model 316 and an object area of 0.5" x 0.6" on the Model 700. Targets to be enlarged are often larger than the Polaroid coverage; therefore, these targets would have to be covered with a number of overlapping or adjoining photographs which is not satisfactory.

Colonel, USA

Assistant for Photographic Analysis, PAG

**Distribution:**

- 2 - Addressee
- 1 - IPO/OSB/PAG
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