

B A U S C H & L O M B I N C O R P O R A T E D
R O C H E S T E R 2, N E W Y O R K



PROPOSAL MODIFICATIONS

1. Higher Magnifications - Magnifications up to 50X can be provided by supplying two additional lenses. The short focal lengths required indicate that separate bellows-lens assemblies will be required. The shorter focal lengths have an inherent critical focus adjustment requirement that will be best solved by providing a fine rack and pinion mechanism for each lens.

Recommended Lenses and Data

2.25 inch focal length, 15X to 30X and
1.33 inch focal length, 27X to 53X.

The higher magnification also dictate a higher illumination level (approximately 16 times) to maintain a reasonable image brightness. It is almost certain that no one illumination system will be capable of providing the high level illumination required and still be compatible for use at the lowest magnifications. Interchangeable light sources appear the most practical solution.

The high level light source will require more extensive heat control design to maintain film safety, a 25°F rise over an 80°F ambient will be a design goal.

2. Film Spools - Brackets will be added to the top rear of the instrument base, one on either side of the projector head support members. The brackets will be adjustable and accept any film width from 70mm to 9-1/2 inches on spools up to 7-5/8 inch diameter.
3. Projected Grid - An auxiliary film pressure plate containing a grid pattern will be supplied. This plate can be placed in the projection plane with the film as desired. The grid can be installed as a semi-permanent part of the projector or maintained as a loose accessory. A pattern of squares showing the field of view for the limiting magnifications of each range will be included in the stage glass.

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4. Portability - The instrument will be provided with casters for one man portability.

The table height of 40" is a minimum defined by mirror size and travel. The instrument base dimensions are defined by the same elements. Access is provided to three sides of the working surface for a standing or stool seated operator. The instrument top will be square and rigid enough for a drafting machine.

January 5, 1962

25X1A

Approved For Release 2000/05/10 : CIA-RDP78B04747A000100150035-7

Approved For Release 2000/05/10 : CIA-RDP78B04747A000100150035-7