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IEG/OD/TPB-130/71
29 July 1971

MEMORANDUM FOR: Chief, Research and Engineering Division, TSG
Chief, Engineering Support Division, TSG

THROUGH : Chief, Operations Division, IEG

SUBJECT : Zoom 240 Optics Field of Focus and Their
Relationship to the 1540 Light Table
Viewing Surface

X1 1. Request that RED and ESD look into a potential problem area that may exist with the [] Zoom 240 microstereoscope and the [] 1540 Light Table. The field of focus for the Zoom 240 using 2X stereo objective lens at 60X magnification is approximately .002 inches. The 1540 Light Table has a specified viewing surface flatness tolerance of + .015 inches. This large tolerance for the table tops may be causing focus problems for the 240's in the stereo mode. The PIs have been complaining about the [] 240's, however, our troubles may lie with the 1540's. 25X

X1 2. IEG is also considering the development of 3X stereo and mono objective lens and 15X wide field eye pieces. The field of focus for the 3X objective lens will be less than that for the 2X's. This increase in magnification will compound the focus problem. With the increase in system magnification, stability of the scope mount and bridge on the 1540 may also become a trouble area.

3. Request the above mentioned areas be looked into and the following questions be answered.

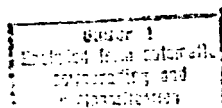
a. Is there a focus problem using the 2X stereo objective lens with a total system magnification of 60X?

b. If there is a problem, what is required to solve the problem?

c. Will the 3X lens considered for development compound the problem?

Declass review by

NGA/DoD
Approved For Release 2005/06/23 : CIA-RDP78B05171A000400030029-9



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d. Is the 1540 bridge and scope mount stable enough for a total system magnification of 135X in mono and stereo modes?

e. If the 1540 is not stable enough, what is the max system magnification?

4. Request this information be forwarded to IEG/OD/TPB, attention: by 16 August 1971.

X1

Chief, Technical Planning Branch

25X

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