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Approved For Release 2004/11/30 : CIA-RDP78B04770A000700030003-0

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23 February 1967

ACUITY ADAPTERS FOR [] EYEPIECES - STAFF STUDY 02127

1. PROBLEM:

To develop a device which will permit a photo interpreter to set his own opthalmic correction on a stereoscope eyepiece, thereby optically optimizing the microscope for his personal use and making it unnecessary for him to wear glasses while looking through the instrument.

2. BACKGROUND:

In August of 1964 the Imagery Analysis Staff received a recommendation from [] of the Optics Panel Scientific Advisory Board, that an opthalmic correction device be developed and tested for use by photo interpreters. He believes that interpreters using this device would not only see better but would experience considerably less eye fatigue than if they were to wear their own glasses as they now do. Following this recommendation CIA/IAS requested that the Technical Development Staff investigate the possibility of providing the type of adapters suggested by []

3. DISCUSSION:

a. Current Procedures. Photo interpreters who require opthalmic corrective devices must wear eyeglasses when using a microstereoscope.

b. Origin of Concept. This concept of individual adjustable eyepieces containing integral opthalmic corrective prescriptions, originally suggested by [] in his capacity as a member of the Optics Panel Scientific Advisory Board, is based on theoretical and empirical findings that eyestrain and fatigue are materially lessened when optimum optical aids are employed by individuals doing visually exacting tasks such as those involved in the photointerpretation process.

c. Proposed Program. The proposed program will provide five separate matched sets of acuity adapters, each uniquely designed for an individual within the photo interpretation group. The initial five photointerpreters were selected to provide a test sample and will represent a cross section of the visual anomalies found among a represent-

NGA Review Complete

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ative group of individuals, e.g. astigmatism and myopia. These five sets are to be tested operationally to prove the feasibility of the concept.

25X1 d. Selection of the contractor. This contract is to be awarded on a sole source basis because it is too small to solicit on a broad participation basis. [] has been selected on the premise that the acuity adapters are to be designed for a [] viewing instrument and on the acknowledged technical competence of the firm itself. Should the initial five sets serve to prove [] hypothesis, competitive bids will be solicited to procure a larger quantity.

e. Contract Period. The acuity adapters are estimated to be deliverable within two or three months from initiation of the contract.

f. Coordination. Internal and external coordination has been part of the project since its inception. The appropriate technical personnel of PAG, CIA/IAS and TID have been briefed on this project. This project has been coordinated with DDS&T/ORD and presented to the Committee on Photographic Exploitation and representatives of Army, Navy and Air Force.

g. Alternative. There are two obvious alternatives to the development of acuity adapters:

1. Use of contact lenses.
2. Continuation of present procedures.

- The use of contact lenses poses a problem of inducing the photo interpreter to accept them. Indications are that many photo interpreters would probably not accept the use of contact lenses as readily as acuity adapters, and they cannot legally be forced to use them. The expense of contact lenses would probably be about equal to acuity adapters. As explained above, the second alternative is unacceptable.

5. RECOMMENDATIONS:

25X1 It is recommended that approval to contract with [] of FY-67 funds for a three-month effort.

6. REFERENCE AND ATTACHMENTS:

25X1 Tab A. Catalog Form
Tab B. Development Objectives
Attachment: [] Proposal

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R & D CATALOG FORM

DATE
10 February 1967

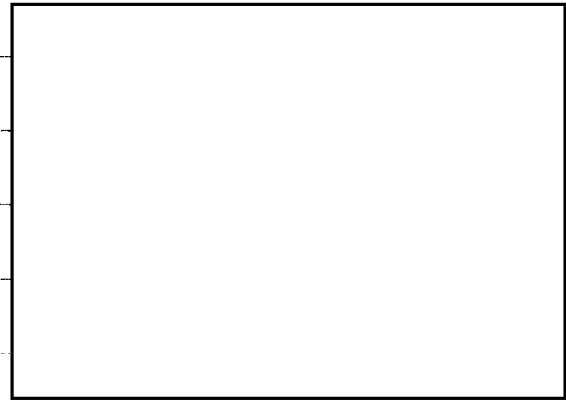
1. PROJECT TITLE/CODE NAME Acuity Adapters for <input type="checkbox"/> Eyepieces		2. SHORT PROJECT DESCRIPTION The fabrication of acuity adapters for microscope eyepieces so that each interpreter may have his own, unique, ophthalmic correction.	
3. CONTRACTOR NAME <input type="checkbox"/>		4. LOCATION OF CONTRACTOR <input type="checkbox"/>	
5. CLASS OF CONTRACTOR Manufacturer		6. TYPE OF CONTRACT Fixed Price	
7. FUNDS FY 19 \$ None FY 19 \$ <input type="checkbox"/> FY 19 \$ None		8. REQUISITION NO.	9. BUDGET PROJECT NO. NP-V-12-02127
		10. EFFECTIVE CONTRACT DATE (Begin - end) March - May 1967	11. SECURITY CLASS. AA-Confidential T-Unclassified W-Unclassified
12. RESPONSIBLE DIRECTORATE/OFFICE/PROJECT OFFICER TELEPHONE EXTENSION DDI/NPIC/TDS/ <input type="checkbox"/>			
13. REQUIREMENT/AUTHORITY Both medical and psychophysical experts have deemed this method superior to glasses and contact lenses for refractive correction during photo interpretation.			
14. TYPE OF WORK TO BE DONE Engineering Development			
15. CATEGORIES OF EFFORT			
MAJOR CATEGORY		SUB-CATEGORIES	
Viewing Systems		Lenses	
		Microscopes	
16. END ITEM OR SERVICES FROM THIS CONTRACT/IMPROVEMENT OVER CURRENT SYSTEM, EQUIPMENT, ETC. Five separate prototype adapter sets, cases and instructions.			
17. SUPPORTING OR RELATED CONTRACTS (Agency & Other)/COORDINATION There is no known equipment available or under development which will satisfy this requirement. This project has been coordinated with: DDS&T/ORD, and presented to the committee on Photographic Exploitation and representatives of the Army, Navy and Air Force.			
18. DESCRIPTION OF INTELLIGENCE REQUIREMENT AND DETAILED TECHNICAL DESCRIPTION OF PROJECT (Continue on additional page if required) A device is needed which will permit photo interpreters, who normally wear standard corrective eyeglasses, to remove them and still be able to properly utilize stereoscopes. There is reason to believe that this can be done by adding the proper corrective ophthalmic prescription to the stereoscope eyepieces themselves. There is some medical opinion that indicates that this would not only enable the PI to see better but would also serve to lessen overall eye fatigue.			
19. APPROVED BY AND DATE			
OFFICE	DEPUTY DIRECTOR		DDCI
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Acuity Adapter

Who needs prescriptions?



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✓ [redacted] and Agency Research Staff of [redacted]

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How much will the eyepieces cost from [redacted]

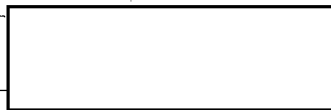
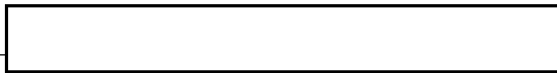
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[redacted] at Hdqtrs now has results (Dec 1966)

(Donald)



(now has exams)
11 Jan 1967



Nurse = Miss Maggie downstairs

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