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(S) NATIONAL RECONNAISSANCE OFFICE  
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

March 15, 1969

MEMORANDUM FOR THE DIRECTOR, CIA RECONNAISSANCE PROGRAMS

SUBJECT: FY 1969 Funding for Readout Technology

This is in reply to your memorandum of January 7, 1969 and your message (PILOT 2763) of January 31, 1969, recommending increased levels of funding for readout technology programs.

In response to the PSAC and the discussions at the EXCOM meeting of November 13, 1968 an increase in the level of FY 1969 funding for readout technology is being authorized. However, as I indicated at the EXCOM meeting, this increased funding is to be at a level not to exceed [redacted] and is being divided between the readout technology programs of CIA/OSP and SAFSP. Accordingly, it has not been possible to fully fund all of the program expansions and additions which you have recommended.

The December 19, 1968 memorandum report of the Land Panel to Dr. Hornig is being given heavy weight in the allocation of funds since half of the increased funding is being assigned to solid-state array efforts in spite of the fact that these are not currently the most promising concepts in terms of near-term overall system effectiveness and costs. It is recognized that major technical advances in the solid-state array technology may radically alter this situation. However, it is not possible to meet the Land Panel recommendations as to level of funding within FY 1969 budget constraints and the need to meet other NRO funding requirements.

I am authorizing the release to CIA/OSP of [redacted] for the purpose of accelerating and adding efforts in readout technology. It is intended that these funds be used entirely to augment efforts in solid state transducers

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and directly associated efforts in optical systems and image processing studies. However, if you desire to apply these funds to other areas of readout technology, please advise us prior to obligation of funds in order that we may assure complementarity with planned SAFSP programs. In this connection, I would like to make it clear at this time that, while CIA/OSP programs in this augmented FY 1969 program are being recommended for concentration on solid-state arrays and SAFSP programs in FY 1969 are concentrated on electron optical devices, there is no intention to make this a hard and fast division. In view of the uncertain status and potential rates of progress in new readout devices, it is desired to provide maximum latitude to CIA/OSP and SAFSP to explore a range of novel and promising approaches to readout technology.

It is considered premature to proceed to system design or subsystem development based on undemonstrated electro-optical components. System studies should be limited to effort necessary to define the ranges of parameters for electro-optical components. As indicated at the November 13, 1968 EXCOM meeting (Budget Issue No. 9), funds are being programmed in FY 1970 to permit work to begin toward engineering models of components and brassboards and to initiate system conceptual design efforts starting about mid-FY 1970 if component development warrants.

Although the only operational requirements objectives currently identified are those described in the COMIREX report of January 5, 1969 "Requirements for Image Forming Satellite Reconnaissance Responsive to Warning/Indication Needs (USIB D-46.4/3 (COMIREX D-13.7/4) BYE 0002-68)," at the present stage of advanced technology exploration it is not desired to limit pursuit of applied research in readout technology to only those concepts which would satisfy these particular requirements objectives. However, progress in the applied research and advanced technology programs will be monitored with a view toward identified specific components and concepts which have direct application to the COMIREX requirements objectives. A summary of

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other potential capabilities and applications of satellite reconnaissance readout systems will be found in the NRO staff study "Satellite Image-Forming Reconnaissance Systems with Near Real-Time Return of Imagery", dated March 12, 1969.

*Alexander H. Flax*

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