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FUL-0061-64

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MEMORANDUM FOR: Deputy Director of Central Intelligence

SUBJECT : Project FULCRUM

1. This memorandum contains a recommendation for your approval. Such recommendation is contained in paragraph 7.

2. As an adjunct to the camera and optics design of the twin 60-inch focal length cameras proposed by Itek for Project FULCRUM, we had asked Itek to explore an alternate design employing a separate approach. Additionally, at the suggestion of the Director, we contracted with Perkin-Elmer Corporation in June for their ideas of a camera design capable of obtaining resolution and swath coverage comparable to the basic FULCRUM requirement.

3. As an outgrowth of these two alternate approaches, each company has developed a design which encourages us to recommend strongly that they both be vigorously pursued. Itek has proffered a design which reduces the requirement to move film at high speed, although it does not escape other inherent problems such as bearing "noise." The Perkin-Elmer design, on the other hand, eliminates the need for one mirror, keeps the film under positive control, and simply offers tremendous promise though yet untried.

4. Unfortunately, there is not sufficient flexibility within our self-imposed ceiling of \$4.5 million to permit us to carry on full-scale design efforts for each of these alternatives. We do have available within our basic program the wherewithal to cover Itek's second approach and have authorized them to proceed. Our decision to do so was prompted primarily by cost and the fact that Itek could assimilate the added task more easily within their on-going effort. We also took cognizance that Itek's experience with CORONA would aid to some degree in their second approach.

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5. The Perkin-Elmer design, on the other hand, although equally attractive would cost approximately \$600,000. As a follow-on to their original design effort, we have asked P-E to identify a team of engineers and prepare for a full-scale design effort. We had hoped to hold Itek's costs to such an extent to permit us to fund P-E. It only became obvious to us this morning that Itek's effort alone will exceed \$3.0 million. Although funds are available to cover termination of the P-E effort, we are particularly anxious that this work be continued.

6. We appreciate the fact that the \$4.5 million ceiling may already be cast in political concrete. We are also sensitive to the fact that the Agency's efforts in Project FULCRUM will receive the scrutiny of many Governmental agencies. In spite of this, we feel that it is most appropriate for the Government to make the additional investment at this time and in this manner. We are confident that the requirement for a high resolution search system justifies this rather moderate expense and the feasibility merits it.

7. It is recommended that you approve the use of Agency funds in the amount of \$600,000 for Project FULCRUM in addition to the \$4.5 million already obligated this fiscal year.

CARRON AND I DECIDED WE SHOULD NOT GO UNILATERALLY ON THIS AND SHOULD NOT RESPOND TO EXECUTIVE APPROVAL OF OUR PRESENT PROGRAM

ALBERT D. WHEELON
Deputy Director
for
Science and Technology

The recommendation contained in paragraph 7 is approved:

Deputy Director of Central Intelligence

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