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BYE-0282-64

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30 Sept. 1964

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT : Project FULCRUM

- l. In a memorandum, dated 29 September 1964, the Director of the National Reconnaissance Office advised the Deputy Director for Science and Technology that he could not agree in the course of action which the Agency had taken in the FULCRUM Program by engaging in spacecraft and recovery vehicle competitions at this time. The D/NRO stated that he felt this action was premature and contrary to an agreement allegedly reached on 11 August, which agreement stipulated that a single contractor would be selected competitively to conduct a systems design study and that, moreover, the D/NRO would approve the work statements before hand. The D/NRO went on to request that further efforts be suspended, pending discussion of the matter in a meeting of the NRO Executive Committee (BYE-22318-64).
- 2. The D/NRO's expressed opinion regarding FULCRUM is a surprise to the DD/S&T and certainly not in concert with the many discussions and memoranda which had gone before.
- 3. On 2 July 1964, Dr. Wheelon handcarried a memorandum to the Director, NRO which stipulated the actions in which the Agency would engage during Phase I of the FULCRUM Program and the corresponding cost estimate for each effort. In this memorandum the Agency identified the various efforts in which it would engage during Phase I in response to the recommendations of the Land Panel called by the DCI on 25 June. Dr. Wheelon's memorandum of 2 July stated that the weight budget and dynamic balance problem would be studied in a funded proposal for space craft and recovery vehicle systems with follow-up design and development efforts by those companies awarded the contracts.

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- 4. On 13 August Dr. Wheelon and Mr. Maxey met with Dr. McMillan to discuss the status of Phase I efforts of FULCRUM. In that meeting, Dr. McMillan related what he felt was the agreement with the DCI concerning FULCRUM. He allowed that he would try to reiterate the understanding as Dr. Fubini also saw it. Dr. McMillan stated that he contemplated FULCRUM Phase I efforts as really a period of systems design study. In addition to study efforts regarding the camera design and fast film transport, the Agency would also consider the housing for the payload such as the spacecraft.
- 5. Additionally, Dr. McMillan suggested that, wherever possible, we use existing hardware or hardware under development. He went on to suggest that such words could also apply to the recovery vehicle, and he stated that the Mational Reconnaissance Program was ripe for a new recovery vehicle, and possibly two. He recommended that we scrutinize the recovery vehicle requirements even to the point of suggesting a land recovery with a small recovery vehicle. He further recommended that we select a single contractor to do the systems design study and that this contractor, and possibly a competitor, he responsible for producing the entire FULCRUM system including getting a recovery vehicle contractor as a sub.
- 6. Dr. Wheelon retorted that he thought it was desirable and necessary to obtain separate R/V studies and select the Assembly, Integration, and Checkout contractor and give him the systems engineering function while the program got underway.
- 7. On 14 August the DCI issued the following instructions regarding contractual procedures in FULCRUM:
 - (1) There shall be no commitment, contractual or implied, that we are to proceed past the authorized R & D work on the film handling mechanism and the camera, which includes developmental mock-ups built in sufficient detail to answer or to disprove all questions or doubts concerning feasibility and, with respect to the spacecraft and re-entry vehicle, conceptual designs and sufficient detailed engineering to present accurate determinations as to weight of the total assembly and compatability with the launcher.

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(2) You will employ engineers and contractors to the fullest possible extent, reserving as "in-house activities" responsibilities for supervision and guidance of the engineers and contractors. I wish you to avoid as far as possible unnecessarily building an in-house capability, restricting the expansion of your staff, if any is required, to such additions as are necessary to adequately supervise the work of the engineers and the contractors.

This memorandum specifically suggested competitive contract for the design of the spacecraft. The Director indicated that the instructions were entirely consistent with the understanding reached at the Executive Committee meeting on 11 August.

- 8. On 18 August the DCI recommended in a Memorandum for the Record on the Executive Committee meeting of 18 August that the decigion was made to proceed in accordance with his memorandum of 14 August.
- 9. On 27 August in a Memorandum for the Record by the DDCI regarding the Executive Committee meeting of 26 August, General Carter indicated that Secretary Vance had registered his agreement that the FULCRUM Program was all agreed and squared away, and he thought that this was a great step forward.
- 10. On 27 August the DDCI advised the DD/S&T that the DCI had approved the following additional guidelines for overall organization and direction of the FULCRUM Program. The FULCRUM Program is a CIA program under NRO aegis. Command, control, supervision and direction of the entire FULCRUM Phase I program is assigned to the DD/S&T. Additionally, he instructed the DD/S&T to keep the NRO fully and completely informed of its progress and to provide information copies of contractual work statements to the NRO.
- 11. On 31 August Dr. Wheelon prepared a memorandum on the conduct of the FULCRUM Program and the terms of reference which the DD/S&T would employ in the management of Phase I. This memorandum was approved by General Carter, and notation was made that the DCI had read and orally approved it. In the terms of reference of this memorandum it was specified

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that there would be a competitive selection of a spacecraft design study contractor as well as one for the recovery vehicle.

- 12. On 1 September the DCI directed a memorandum to Secretary Vance, which included as attachments not only the memorandum prepared by Dr. Wheelon specifying the terms of reference and basic management plan for Project FULCRUM, but also the directive to Dr. Wheelon from General Carter which placed FULCRUM under the direction of the DD/S&T and specified that the DD/S&T should provide the NRO information copies of work statements.
- 13. On 8 September Dr. Wheelon advised the D/NRO by memorandum that the Agency planned to release the funded design competition contracts for the re-entry vehicle. Dr. Wheelon requested that the results of other R/V design studies conducted by the Air Force or NRO be made available to the Agency.
- 14. On 11 September the DD/S&T forwarded to the D/NRO information copies of the spacecraft and recovery vehicle work statements.
- 15. On 17 September the D/NRO, acceding to Dr. Wheelon's request, directed the Director, Program A, to provide Dr. Wheelon with information derived from the R/V design studies.
- 16. In response to a query from D/NRO on 21 September as to the status of the FULCRUM Project, the DD/S&T replied on 23 September appraising the D/NRO as to the work efforts presently underway in FULCRUM and assuring him that as definitized work statements were prepared they would be forwarded to the NRO as had been done with the R/V and spacecraft contracts.

ALBERT D. WHEELON
Deputy Director
for
Science and Technology

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