~~SECRET~~

[redacted]

Copy [redacted]

5 August 1959

MEMORANDUM FOR THE RECORD

SUBJECT: ARGON Meetings 3 - 4 August

1. Project ARGON was discussed at both the 3 and 4 August ARGON/CORONA meetings. On 3 August, ARGON Instruction No. 1 to Amendment No. 6 of ARPA Order No. 48-60 was discussed with Mr. Bissell, representatives from BMD and LMSD. All parties concerned were in agreement with the managerial aspects of the instruction and with the general plan of contractors for Project ARGON. At this time, however, Lockheed made a brief presentation based upon their preliminary study of the [redacted] proposal. This presentation indicated that Lockheed was not completely convinced that the [redacted] system of determining orbit accuracy was sufficiently foolproof enough to conduct the program without an additional ground tracking system.

2. The alternate ground tracking system suggested by LMSD was a Doppler Radar System involving a small (10 lbs.) transmitter in the orbitting vehicle being received on the ground by 6 tracking stations. The most effective placement of these stations would be: [redacted] Lockheed suggested that the Doppler System be added as an adjunct to the ARGON [redacted] orbital determination system and that the program continue on that basis. Decision on this matter will be forthcoming after complete examination of the Doppler System.

3. During the 4 August meeting, [redacted] and [redacted] presented a statement of requirements for the ARGON program and recommended that the 3" Baker camera manufactured by Fairchild be used as the instrument for the ARGON payload. After this presentation LMSD went into a discussion similar to the one presented at the 3 August meeting, ending up with the recommendation before noted. This recommendation seemed acceptable to all parties.

4. [redacted] encouraged a discussion for the use of a 6" Fairchild camera in preference to the 3" camera for the ARGON payload. The advantages of a 6" camera versus a 3" camera are as follows:

a. A 6" camera will produce increased resolution which will be helpful to better identify known or unknown ground points.

~~SECRET~~

b. The increased resolution would make the end product more flexible and it might be used for other purposes; i.e., intelligence information.

c. Increased resolution would make manual correlation of geodetic data earlier in the event that the automatic image correlation system failed and the old type mapping system would be necessary.

5. [redacted] and [redacted] brought up the following disadvantages for the use of the 6" camera versus the 3" camera:

a. The 6" camera would be much heavier and might require redesign of the recovery vehicle for its incorporation into the payload.

b. There would be an additional 120 lbs. of film weight for the 6" camera. This additional film might also require redesign of the cassett.

c. The 3" Baker lens is presently in production and could be easily obtained with a minimum of delay.

d. The present 3" lens is of excellent quality compared to the 6" lens which has not been thoroughly tested and perfected.

e. The increased resolution is not real significant as a picture taken with the 3" lens compared with a picture taken with the 6" lens would not show much difference in resolution.

6. At the end of the 4 August meeting, Mr. Jim Plummer of LMSD outlined the following actions:

a. LMSD will turn out a paper on the Doppler System for consideration of Washington management.

b. [redacted] as requested to furnish LMSD with a statement of requirements for end product.

c. Based upon these requirements, LMSD would consider a camera to meet these requirements, taking [redacted] 6" proposal into consideration, and proceed with a system study to include a development and funding plan to be ready by the 24 August meeting in Washington.

7. After the main meeting, representatives from ARPA, AMS and [redacted] had a small conference in which they discussed the writing

of the requirements statement. [redacted] requested that this statement be ready by Friday afternoon, 7 August. [redacted] felt that the statement of requirements should lead the reader to the conclusion that the 3" Baker lens was the most feasible for this program. He plans to write a preamble to the requirements paper which will insure that this conclusion is reached. The preamble will require the contractor to be aware of the time factors involved in the program and consequently the Systems Engineer should not engage in a systems design which will constitute a major redesign from the present system, and the contractor should take advantage of present hardware under development that could be utilized effectively for this program.

8. [redacted] felt that the 6" camera proposal was infeasible for this program based upon discussions with [redacted] and [redacted] In order to back up his decision he requested that [redacted] write 3 papers to substantiate the conclusion that the 3" camera should be used. Subjects of the papers are as follows:

a. Disadvantages of the 6" camera in light of increased film weight, increased camera weight, need for redesign of recovery vehicle and cassett and availability of 3" components versus non-availability of 6" components.

b. Quality of 6" lens versus quality of 3" lens presently in production.

c. The increase in resolution as related to focal length and its usefulness in this type of geodesy program.

[redacted]

Distribution:

[redacted]