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DIRECTORATE OF SPECIAL PROJECTS (OSAF)

AF UNIT POST OFFICE, LOS ANGELES, CALIFORNIA 90045

1 5 NOV 1965

REPLY TO

Unsatisfactory Performance by General Electric Missile and SUBJECT:

Space Division

TO: Director, NRO (Dr. Flax) Director, MOL (General Schriever)

> 1. During the decision-making process which preceded the final MOL program decisions leading to public announcement of the program, I was asked by the Under Secretary for a summary statement of GE(MSD) performance on SAFSP programs. Since the time of my reply, this performance has deteriorated, and investigation of this deterioration has revealed conditions which invalidate my previous report, and make advisable the preservation of the option to discontinue GE(MSD) in the MOL program after completion of Phase I.

- In addition to KY-9 telephone discussion of this subject with the Under Secretary, I submitted a written summary by wire on 1 July 1965. This summary rated GE(MSD) performance unsatisfactory on Program 201, which was terminated after five unsuccessful flights (where all controlling failures were caused by defects in GE(MSD) components). It rated the overall performance (to that date) on Program 206 as acceptable, noting generally satisfactory performance in meeting specifications, marginal cost control, and satisfactory overall performance.
- 3. Overall flight performance on Program 206 was stated in the report as 57 percent, with 36 days of useable product having been obtained from the 63 days of planned operations in the 19 flights that had been conducted to that date. If this overall performance had been characteristic of the performance at the time of the report, I would have rated it as unsatisfactory. However, we had undergone a program stand-down in the previous December, in a concerted effort to get the reliability up to an acceptable standard. At the time of the report, this effort had apparently been successful: the average performance for the last 5 flights had been approximately 80 percent, and was so stated in the report. Taking this improvement into account, I gave a satisfactory rating on overall performance.
- 4. After my submission of the report mentioned above, the occurrence of the second OCV DC power supply failure in 3 flights indicated a relapse in the get-well process. The results of a subsequent examination of

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procedures, test records, and disassembly of prime flight hardware showed conclusive evidence that serious deficiencies still existed. As a result, we have again had to initiate an intensive effort to get the GE(MSD) performance up to an acceptable standard, an effort which inevitably will involve added program costs and further slip in schedules, even if otherwise successful.

- 5. In this latest effort, as before, the company is being quite responsive, insofar as attitude and apparent internal efforts are concerned. Yet, whether the effort will be successful remains to be seen. We have just had another GE(MSD)-caused failure of the flight launched on 8 November. In addition to the catastrophic failure of a roll jet valve (apparently) in the vehicle control system, there were other vehicle failures which are not yet fully diagnosed but which also could have caused serious difficulties if the valve malfunction had not occurred. This failure brings the current performance record to 3 total mission failures, due to GE(MSD), of the last 5 Program 206 flights.
- 6. I am aware that the expected contribution of the GE(MSD) experience gained on SAFSP programs, and their large base of cleared personnel were major factors in the decision to include this company in the MOL program. A review of their performance in perspective shows 3 total failures out of the last 5 flights, in a program almost 5 years old, with 23 launches to date. They are now involved in the second major get-well effort in the last 12 months, both efforts required due to poor performance, in which the management has consistently shown the best intentions, but seems to require the stimulus of catastrophic failure to discover deficiencies in their quality control and manufacturing process, and has been unable to establish and maintain the capability to produce consistently reliable products after almost 5 years of effort and 23 launches. In view of the fact that the above unsatisfactory situation exists in a mature program, with a relatively stable, experienced management, and the management for the GE(MSD) MOL effort is all to be a newly established unit, I have serious doubts as to whether this company can deliver the quality of performance that will be essential to a successful MOL program.
- 7. I therefore recommend that appropriate steps be taken now to assure that the option will exist to discontinue the presently planned use of GE(MSD) in the MOL program at the conclusion of the present Phase I contracts. This could be done by dividing the Phase II work which would otherwise be done by GE(MSD) between the two contractors with whom GE (MSD) would interface under present program plans. GE(MSD) could either be dropped entirely, or their participation reduced to the literal role of the public announcement as integrators of some (non-reconnaissance) experiments (on a basis which would insure that such experiments



would have no effect on the overall reliability of the MOL flights or the accomplishment of its primary mission).

8. At the conclusion of the present Phase I MOL contracts, I will report any significant change in the GE(MSD) Program 206 performance, including flight performance and any tangible indications of any significant improvement in managerial effectiveness and the quality of the Program 206 products, which might warrant serious consideration of GE(MSD) continuance in Phase II in the role originally intended.

JOHN L. MARTIN, JR

Brigadier General, USAF

Director

Copies to: Gen Berg

Mr. Paige(GE)

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