

21 JAN 1966

MEMORANDUM FOR GENERAL EVANS

SUBJECT: MOL Experiments Program

Organization of a MOL experiments program was discussed at SSD with General Berg and Colonel Rochte on 5 January (reference a). Having explored the differing points of view on this subject, we should now consider various options, choose one and recommend it for adoption. As we view the requirement for a Defense Manned Experiments Program (DMEP), there are two prime functions to be performed: (a) Set goals for military manned space flight and stimulate laboratories to develop experiments and advanced technology to meet these goals, and (b) Evaluate proposed experiments, establish priorities and assign them to vehicles. There appears to be no disagreement as to the requirement for (a) above, and the establishment of an Executive Board to do this. Disagreements arise about the importance of the experiments program, the level and type of support to be provided to an Executive Board and the method of collecting, analyzing and choosing experiments for the program.

Our discussions, and the briefing prepared on "Experiments Program for MOL" (reference b) have developed a rationale which shows the importance of the program and the need for an Executive Board, reporting to both Commander, AFSC, and Director, MOL, and supported by a technically competent, full time working Secretariat, to accomplish both (a) and (b) above. Therefore, the options which are to be considered concern the method of collecting and screening proposed experiments, and, in particular, the role of SESP in this function. These options are discussed below.

a. Option 1 - Completely integrate selection of unmanned and manned experiments in the SESP operation. A division between manned and unmanned space experiments is somewhat artificial. If the SESP is properly organized and operated for unmanned experiments, it should be an appropriate mechanism doing the spade work on manned experiments for the DMEP Executive Board. Use of SESP channels for all space experiments has the advantage of simplicity from the Air Force laboratories' point of view, in that they would have to be familiar with only one procedure. Use of one channel also provides the best interface between manned and unmanned space experiment activities. It would be a duplication of effort if a Secretariat for the Executive Board re-evaluates manned experiments already evaluated and ranked by the SESP. Thus, the SESP should provide this support for the Board. It is evident that there are many advantages to integrating the selection of all space experiments

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in the SESP. However, there is one major disadvantage. The SESP, as presently constituted, is at too low a level in the chain of command and gives SSD/Aerospace an opportunity to excessively influence its decisions. The Space Payloads Panel of the SESP is chaired by the SSD Deputy for Technology and Secretariat support is provided by one of his subordinate organizations, SSTRX, together with their Aerospace counterparts. Since most AF experiments would be generated by RTD and OAR laboratories, some members of those organizations view the present setup with suspicion. This attitude could be detrimental to the DMEP Board's efforts to stimulate experiment inputs.

b. Option 2 - Establish separate channels for submission of manned and unmanned experiments. The DMEP Executive Board can have experiments submitted directly to its Secretariat for evaluation, completely bypassing the SESP. The Secretariat, in this option, should perform an initial evaluation of proposed experiments for the Board, since the top people named to the Board are not likely to devote sufficient time to do this type of preliminary work. The primary advantage of this mode of operation is that it places additional emphasis on manned experiments and puts the entire DMEP operation at a sufficiently high level to give it the necessary stature. This option provides for clear and recognizable MOL Program association as well as allows for easier control by MOL. It eliminates any constraints and disadvantages inherent in the SESP operation. The biggest argument against this option is that it results in two separate, duplicative operations involving activities which are somewhat artificially divided. The Secretariat will have to maintain very close coordination with SESP activities to provide a good interface with unmanned experiment activities. This coordination is more difficult to achieve than in Option 1. If the Secretariat is to perform an initial evaluation for the Board, a larger number of personnel, with more varied scientific backgrounds will be required than in Option 1.

c. Option 3 - Use SESP to perform the manned experiment collection function and the DMEP Executive Board, with its Secretariat, perform the remaining functions. This option makes use of the existing capability for the mechanical function of collecting experiments and gives laboratories a single channel for submitting experiments. It places the total evaluation function being performed, as in Option 2, at a sufficiently high organizational level to relieve any fears that one organization can unduly influence decisions. This option somewhat strengthens the interface between manned and unmanned experiment activities since the Executive Board Secretariat and SESP will have to work closely together here. There is an added advantage in that

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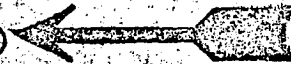
if at a later date it appears desirable to integrate manned and unmanned activities, and establish a single Executive Board, the integration would be relatively simple. A larger Secretariat, covering a wider range of scientific backgrounds, would be required although all the skills needed by Option 2 are not needed.

d. Option 4 - Completely integrate selection of unmanned and manned experiments in a modified SESP operation. As discussed in Option 1, there are some shortcomings in the organizational placement of the SESP as it is presently constituted. Army and Navy representatives, as well as DDR&E, have questioned the Space Payload Panel being chaired by SSD. In view of this, there has been some discussion that the Chairman of the Panel should be a Headquarters AFSC representative, with meetings held in the Washington area. Such modified SESP would be supported by a Secretariat assigned to Headquarters AFSC. If the SESP were modified in this fashion, coincident with the establishment of the DMEP Board, the Secretariat could support both the Space Payload Panel and the DMEP Board. In this option, the Space Payload Panel could evaluate all space experiments, and submit their recommendations on manned experiments for review by the DMEP Board. This option eliminates most of the disadvantages of the previous options while preserving the advantages. The single potential disadvantage concerns the matter of timing. The existing SESP operation has evolved over a period of a year and a half and has been approved by Headquarters AFSC. SSD has a vested interest in retaining their position of authority in the existing operation.

I recommend Option 4. Although this option seems best suited to provide the ultimate solution, the urgent need to establish a DMEP may require initially adopting an option having a more limited objective, such as Option 3. Thus, the Board can be established quickly and proceed with its first task of setting goals and stimulating manned experiments. At the same time, planning can proceed to phase into Option 4 as soon as possible. Upon your approval, we shall modify the attached briefing to correspond with the latest conclusion and prepare the appropriate implementing documentation.

MICHAEL I. YARYMOVICH
Technical Director
MOL Program Office

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1. TAB A
2. TAB B (Briefing
Charts)

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THE CLASSIFICATION OF THIS CORRESPONDENCE WILL
BE CANCELLED IN ACCORDANCE WITH PARA 26a, AFR 205-1.
Lt Col Sanders/SAFSL-3/50945/19 Jan 66 /dm