

MEMORANDUM

Lyndon B. Johnson Space Center



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TO: CB/Joe Kerwin		CC CB/J. W. Young CB/T. K. Mattingly CB/F. S. Musgrave	
FROM: CB/W. E. Thornton		SIGNATURE <i>W. E. Thornton</i> W. E. Thornton	

SUBJ: Comments on Initial SMD III Planning Session

Although it is very early, several facts are obvious and others may deserve discussion.

1. It does not appear to be generally appreciated that there is a great difference in handling an animal load such as this as compared to previous biomedical missions. Ames apparently does not at this time even have an adequate animal holding facility. It does not appear that a veterinarian has been consulted at either Center. There are difficulties and potential safety hazards in handling a variety of animals in closed spaces; e.g., enteric pathogens are present in fowl and in reptiles which frequently cause serious infections in humans. Since we are using this as a learning exercise for future missions, I think all aspects of this mission should be treated just as those in the future; and, for this reason, I would strongly recommend getting competent veterinary inputs, especially as regards human safety.
2. The schedule looks quite unrealistic in view of essentially no hardware development by Ames.
3. Scheduling and Timelines - Since this is supposed to be a learning exercise to provide a basis for future operations, I feel that we should impose realistic constraints. This is especially true in hardware development and in hardware and procedures for training. It was obvious from this meeting that this has been a continuous problem and Story flagged it as a major previous problem, but the participants of this meeting assumed that this is the way it will always run, i.e., the first few days of the flight will be spent in becoming familiar with last minute experiments hardware deliveries and that training sessions will not be realistically met. With the complexity of the loads of the future, this will not be a workable approach to the problem. We should establish experiment hardware and other deadlines; and, if the equipment or other schedule points are not met, then the entire operation should be delayed or the experiment cancelled or replaced by other experiments. This is a management prerogative and they should implement guidelines now.
4. Addition of Commander and/or Pilot - Although it was recommended on both previous sims that these crew members be added, I doubt that the fidelity of the mock-up, including such items as power, computer and other interfaces--to say nothing of simple living space--warrants the inclusion of these additional crew

members. Further, this is not a particularly good series of experiments to introduce pilot types to, i.e., it probably will not be typical of the duties they would be expected (or inclined) to perform. Conversely, I feel that for efficient operation these slots should be filled in future sims such that questions of responsibility and extent of cooperation and abilities can be worked out.

5. The current experiment selection procedures and input to management of the operation has no FOD representation. Crewmen should be present in both of these areas. The success or failure of many of these operations is going to be a thorough understanding of what is or is not possible in the operational world and this certainly should be applied at the earliest possible selection.

Probably an even more important aspect would be an attempt to balance our operational needs for certain medical experimentation against the scientific curiosity of "objective scientists."

Any comments will be appreciated; and, in the meantime, I shall press on with learning as much of the existing facility as possible, as well as making the earliest possible acquaintance of the PI's and their objectives for the experiments, which I consider an essential first step in the training of crew members for scientific operations.