

8 July 1959

SUBJECT: Suggestions for Better Support of BMD DISCOVERER Program

TO: Major General Osmond Ritland

1. With the recent international events of interest centering around aerospace medicine the most meaningful accomplishment for the United States preceding man in space would be the successful launching, orbiting, and recovering a live biological specimen. This not only would lend international prestige to our nation but it would be the first step in obtaining biomedical data as it may be altered by physical forces encountered in orbital space flight. To realize these objectives the School of Aviation Medicine endeavored to integrate our limited knowledge and experience with other members of the Ballistic Missile industry team in the DISCOVERER program. As you are undoubtedly aware, the problem has become exceedingly complicated. The most recent endeavors at Vandenberg have met with innumerable difficulties and it has caused such concern from among our scientists that we have re-evaluated our position with respect to the entire program.

2. In the early inception of this program, of necessity the biomedical portion was a "piggy back" endeavor, as it should be, because of the pressing missile development program. More recent events, however, indicate that this program may now become a biomedical experiment in itself. This being the possibility leads me to suggest the following:

a. To meet previous deadlines it was necessary for all of the various organizations concerned in this program to proceed without complete laboratory testing on all component parts of the life cell. Furthermore, because different agencies were responsible for the construction of selected components, complete assembly and testing have only been possible under field conditions. As a consequence difficulties have arisen that could not easily be corrected except in an equipped laboratory wherein many individuals and highly specialized equipment are available.

b. It would be our suggestion now for your consideration, since there is an extended delay, that we consider utilizing the facilities of the School of Aviation Medicine as a focal point for a thorough laboratory dry-run on every component of the life cell. The idea being, that should deficiencies of a mechanical, electronics or biological nature become apparent there would be sufficient highly skilled individuals available to contribute to thorough corrective measures. Furthermore, it would enable all the agencies involved to ultimately determine full laboratory qualifications of each and every component part in the life cell system prior to its delivery to the missile division. In making this suggestion I fully realize that my own institution is fully committed both to your program and to three specific programs with NASA and that perhaps we are taxing an already hard working group of people. Nevertheless, I feel, as I am sure you do, that this is such an important step in the biological conquest of space that it can only have meaning if it is in fact so thoroughly done that we can essentially guarantee a live specimen upon re-entry and recovery from orbit. This is the only step at this time yet undone by any nation, and appears to be a scientific way of approaching our two objectives.

3. This would specifically then involve select scientists from each of the agencies involved and the transfer of responsibility for the entire life support systems to the School of Aviation Medicine during this concerted period of research. To implement this with the large numbers of people involved we think that each agency should clearly define a single project officer who has the authority to make decisions on the spot for modification of items that do not thoroughly withstand rigid laboratory testing, and to make such retrofits as will produce a completely functioning, dependable life support system. The position in which we now find ourselves I feel is identical with the probable situation of all of the other interested agencies, namely, a great many people are making small contributions to specific end items but they are not in a position to study and evaluate the entire end item, and as such they are trying to accomplish the final checkouts and modifications under conditions encountered in the field.

4. These ideas have been thoroughly discussed within our own group alone and are offered with the hope that our interest will carry over and find support necessary to get this job done in the earliest possible period of time. There is no intent at criticism because we all realize the need for expediency but it is our considered judgment that until a thorough laboratory experiment corrected for its deficiencies is conducted we are trading our objectives for time alone and jeopardizing success.

W. G. HISSON, JR.
Major General USAF (Rtd.)
A-1000000

SCHOOL OF AVIATION MEDICINE, USAF
Randolph AFB, Texas

Memo from the Commandant:

10 July

Dear Ogzie:

This is the "letter"
to which I referred and
stated I didn't have
the Court to officially
send it.

We hope to help
you rather than confuse
the things further.

Regards,
Bill

6 Aug 59

AIR FORCE BALLISTIC MISSILE DIVISION
HEADQUARTERS

Air Research and Development Command
Air Force Unit Post Office
Los Angeles 45, California

DATE

24 JULY 59

MEMORANDUM FOR:

WDZ:—

COL EVANS—

FOR REPLY —

GEN. BENSON HAS NOT
SENT AS OFFICIAL LTR—
BUT IT EXPRESSES HIS
FEELINGS.

LET'S DISCUSS THE TOTAL
PROBLEM.

[Signature]

suspension Acti-

[Signature]