



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WASHINGTON, D.C. 20546

*Post
11-16*

REPLY TO
ATTN OF:

SL(RSY:dr)

August 10, 1973

Dr. Charles Berry
Code MM
NASA Headquarters
Washington, D.C. 20546

Dear Chuck:

We have had to change the dates of the Return Mars Sample meeting at Ames from the 25th and 26th of October to the 24th and 25th of October. Please adjust your calendars accordingly. You will be hearing from me with more details soon.

Sincerely,

Dick

Richard S. Young
Chief, Planetary Biology
Planetary Programs
Office of Space Science

CFI
Young!

1. Sci. attitude - Lederberg - Legend of couple is real - Life on Mars
The Times say have no defence - \rightarrow Do Vikings - #?

Hershey - legend not real. Independent of life on earth.

Jakes

Sagan - never bring sample back to earth to be infectious!!

Vishniac - bring back but be careful.

\rightarrow What org. in origin transmitted to man. Viral amino acid chains.

Mission Options: (Herman)

1. Direct Return 600 mill \rightarrow 1 billion (costing 10)

\rightarrow man - one sample \rightarrow sterilized \rightarrow dry heat (?) - when?
 \rightarrow \rightarrow unsterilized \rightarrow 200°/24 hrs.
last certain safety?

P of capsule landing intact? Crash?

more data in Oct.

2) Lost science ? \rightarrow guys working.
A. inorganic OK. \rightarrow 400°/24 hrs.

B. Org. chem. some some -
Nucleic acids - 25% loss.
Amino acids - 25% loss.
optically active -

C. Bial - doesn't know answer -
Do org. leave remains?

2. Return to Earth orbit - Shuttle/Tug

A. Quarantine in orbit. - non risk unacceptable -

1) Thermonuclear Quar. on orbit - automated > 90 days.

2) Unmanned? - space problems etc.

3) Split sample - sterilize 1/2 \rightarrow return to earth -
other 1/2 kept in orbit - test it at least 1 bio system.

3. If life on Mars - sterilize a culture - sterile control in Viking-!

What were the breaks in the lunar program?

1981 - Direct Return only study. Should you stop studies how to visit Mars?

Barcelona meeting for discussion. World wide concern.

? Strenuous Center role?

Pyrolyzed - get gas chromat.

Science + Nature ? Leitch's paper!