

SPACE SCIENCE BOARD, COMMITTEE ON EXOBIOLOGY(14)

Stanford University, October 29, 1960 Minutes

Exo 8-14  
d. l.

Present: Davies, Horowitz, Lederberg, Marr, van Niel, Novick, Sagan, Berg, Miller, Richard Young (NASA), G. L. Hobby and Richard Davlew (JPL), Dr. Stanley Miller (Dept. Chemistry, U of C. La Jolla), Mrs. Jo Holsti, Secretary (Stanford University).

The meeting was primarily an informal discussion of the present status of the scientific program and no formal actions were taken. The Mariner B (Mars 1964 bus-capsule) project was reviewed in some detail; the ideas developed are embodied in an attachment (Exob 8-14) which has been forwarded directly to NASA subcommittees and to JPL for further study.

Committee 14 is quite enthusiastic about the prospects for Mariner B and regards it as a mission of outstanding importance.

Other topics discussed included:

- A. The possible location of a NASA Life Science Laboratory at Moffett Field.
- B. Mariner A (Mars 1962) and the importance of parallel studies on the earth.  
(Sagan agreed to write a more critical review of the IR experiment with an indication of the spectra that might be detected - cf. E.)
- C. The importance of more constructive publicity on scientific achievements and rewards in space research.
- D. Other current instruments for biological detection (cf. Goetz, A. and O. Prainig, 1960. The aerosol spectrometer and its application to nuclear condensation studies. Monograph 5 (Physics of precipitation) from American Geophys. Union., p. 164-183.) This immediate application is uncertain.
- E. Spectra of the earth and laboratory simulations - both momentarily stalled a/c operational problems.
- F. Biology presentations at COSPAR in April 1961. Informal discussions with Russians would be desirable. No immediate contributions in exobiology are likely. Perhaps decontamination procedures should be reviewed.
- G. The Mohole Project - biological studies might be analogous to exobiology except for emphasis on sample recovery.

H. Stanford preliminary experiments in exobiology detectors.

I. Indication of simulated atmospheres. Artificial inoculation of Venus with photosynthetic system (Sagan and Scher).

J. Radiation Microbiology (primarily problem of Committee 15). Preliminary results on Neurospora (De Busk, reported by Young) are rather puzzling. The Oak Ridge National Laboratories has unusual capability in this area and Dr. A. Hellaender should be consulted for possibility of more effective cooperation.

K. ~~EMMIXXMM~~ In view of contacts at other levels, Committee felt that meetings twice yearly would serve for the present, subject to special calls for special problems. The next meeting is tentatively scheduled for May 1961.

Enc. 8-11. Comments on Mariner B - Mars 1964.