

January 26, 1960

Memo: To Westex

From: J. Lederberg

## 1. Report on COSPAR Symposium at Nice.

The biological interest of this meeting was very limited but it was an excellent and necessary forum for the presentation of a constructive program in exobiology. The presentations relating to biology included the following:

5.3	H.C. Urey	Lines of evidence regarding the composition of the moon.
5.4	J. Lederberg	Exobiology -- A new experimental science.
5.6	A. Dollfus	Résultats d'observations indiquant la vie sur la planète Mars.
5.5	R. W. Davies	An infra-red Mars probe experiment for gathering evidence of extra-terrestrial life.
	M. Gumpel	
Read by 5.7	M. Calvin	Extra-terrestrial life: some organic constituents of meteorites and their significance for possible extra-terrestrial biological evolution.
O.H. Schmitt	S. K. Vaughn	
5.8	O. H. Schmitt	Experimental problems in space biology.

Dollfus reviewed his studies of the changes of ~~lunar~~<sup>lunar</sup> markings and the polarization evidence for seasonal changes in surface granularity. Calvin's paper reported on the detection of heterocyclic compounds of aromatic character -- some of the materials had spectra similar to cytosine but cannot yet be conclusively identified. Urey remarked that the main evidence on lunar composition is its low density. This might be attributed to a deficiency of iron or to substantial amounts of water or carbon.

There was some corridor discussion of contamination hazards. As far as I could judge, there was a unanimous feeling that stringent measures were necessary and should be adopted.

The Russian delegates (A. A. Blaganravov and three others) were quite cordial but had no knowledge of technical details of biological experiments. Efforts are continuing to arrange an international, informal conference, perhaps in London, to review biological programs.

The enclosed copy of my paper is a draft version composed in some haste. It will be revised for publication in the Proceedings. Newspaper reports, including purported quotations, that deviate from this text are inventive.

2. The Space Science Board will be meeting in Washington, March 12. It has been suggested that Committee II meet to discuss general aspects of space biology; areas other than exobiology have been rather neglected so far. All members of Westex are invited to attend this meeting at Stanford on February 29, and you will be most welcome. However, I have hesitated to call a formal meeting of Westex unless more urgent business in exobiology presents itself than is now apparent. Please let me know if you will be available for the committee meeting and particularly if you have any matters to bring to the attention of either or both groups. The membership of Committee II is: Hartline (Chairman), Stevens, Curtis, Farr, Francis, Lederberg, MacNichol, Schmitt, Tatum, Derbyshire.