

11-78

# THE PRAIRIE ASTRONOMER

Volume 18, Number 12

November 28, 1978

## COMMITTEE SAYS STERILIZATION OF MARS SPACECRAFT UNNECESSARY

Concluding there is little or no chance for Earth life to survive on Mars, a National Research Council committee says there is no need to sterilize spacecraft landing between the planet's polar ice caps.

A committee on planetary biology took a look at the contamination risk posed to Mars by an unsterilized spacecraft from Earth and said the environment is too harsh for growth of terrestrial bugs on frigid Martian deserts.

And the panel said the likelihood that an Earth organism could survive at the poles, where less is known about the conditions, is "extremely low."

But the committee said this does not rule out the possibility that indigenous life forms may exist on Mars, or may have lived there sometime in the past.

"The limiting conditions ... for terrestrial life are not the limits for conceivable life elsewhere."

The study was made at the request of the National Aeronautics and Space Administration, which has a present quarantine policy that calls for sterilization of any spacecraft designed to land on Mars.

NASA's Viking spacecraft, which

landed on Mars in 1976, provided the first information on the surface environment.

"None of this new information suggests that the Martian surface is less harsh to terrestrial micro-organisms than was thought prior to Viking," the committee said in a report to the space agency.

On the other hand, the report said, two pieces of information supplied by the Vikings indicate the  
*(Continued on Page 3)*

## ANNUAL ELECTION HIGHLIGHTS MEETING

Election of officers for the Prairie Astronomy Club, year of 1979, will take place at the November meeting of the club, 7:30 p.m., Tuesday, November 28, at Hyde Observatory.

As usual, the nominating committee has submitted a slate of candidates  
*(Continued on Page 2)*

## RASC HANDBOOKS ARRIVE FOR SALE!

Members who wish a copy of the OBSERVERS HANDBOOK 1979 should attend the November meeting. Fifteen copies have been received from the RASC, and will be sold on a first-come, first-served basis.  
*(Continued on Page 4)*

## ANNUAL ELECTIONS TO BE HELD AT NOVEMBER CLUB MEETING

(Continued from Page 1)

dates for consideration of the full membership. The persons listed have been contacted, and have accepted nomination for the positions indicated:

President -- Ron Veys  
 Vice President--Walt Baumann  
 Secretary -- Lee Thomas  
 Treasurer -- Budd Duvall  
 Program Chairman -- Jack Dunn

We might note that Jack has ably held the position of Program Chairman for many months, and would very much like to have another club member contribute his efforts to developing programs in 1979. The nominating committee submitted Jack's name only because he was willing, in the absence of another volunteer, to continue in this job.

Nominations for each of the 5 officer positions, which constitute the five-member Board of Directors, will be accepted from the floor prior to voting on November 28. So, if you crave power and fame, or you know

someone in the club who does, come prepared to submit other names in nomination.

## NEW GALAXIES DISCOVERED IN LOCAL GROUP BY PALOMAR ASTRONOMERS

Three astronomers at Hale Observatories have reported the discovery of three dwarf galaxies that are probably members of the local group. They were found on Kodak IIIa-J plates obtained with the 122-cm Schmidt telescope at Palomar during October 25-29. The objects are very faintly visible on the blue Palomar Sky Survey prints. Information about the dwarf galaxies, designated LGS 1, 2 and 3, as well as two other dwarf galaxies that are not believed to be in the local group, but which were discovered at the same time, are as follows:

			(Size)	(Mag)
LGS1	0h15.0m	+22°13'	1 x 1'	20
LGS2	0 26.6	+33 04	3 x 2'	19
LGS3	1 01.2	+21 37	2 x 2'	18
LGS4	0 16.2	+30 13	1 x 1'	18
LGS5	0 26.8	+27 41	1 x 1'	20

All coordinates are epoch 1950.

THE PRAIRIE ASTRONOMER is published monthly by the Prairie Astronomy Club, and is free to club members. Yearly subscription without club membership is \$4.00. Regular membership (includes one-year subscription to Sky & Telescope, club newsletter, and four quarterly issues of the Astronomical League newsletter), is \$12.00. Family membership (includes all regular privileges, plus one additional vote in club elections) is \$14.00. Newsletter Editor, Lee Thomas (489-3855). Address all correspondence to PRAIRIE ASTRONOMY CLUB, INC., P.O. Box 80553, Lincoln, Nebraska 68501.

## SPACECRAFT STERILIZATION UNNECESSARY

*(Continued from Page 1)*

Martian environment is more severe than previously believed: a lack of detectable organic compounds in the soil and the presence of strong oxidizing compounds.

In addition, the Mars environment is cold, dry and subjected to deadly doses of solar radiation.

"Our conclusion is that no terrestrial organism could grow under the conditions found by Viking to prevail on sub-polar surfaces at the landing sites and none could grow under the conditions that are highly likely to prevail throughout the entire sub-polar regions", the report said.

"Few, if any, terrestrial organisms could grow in contact with even one of the adverse conditions cited, much less grow when exposed to all of them."

The committee, headed by Dr. Peter Mazur of the Oak Ridge National Laboratory, said it could not rule out the existence of oases capable of supporting Earth life, but said the chances of any existing were remote.

What this means, the committee told NASA, is that heat sterilization is no longer required for spacecraft landing gently in the areas between the polar caps. The scientists said they would have no objection to sterilization as long as it did not harm scientific equipment.

But it said it would object to

## HYDE STEERING COMMITTEE MEETING

Members of the Steering Committee for Hyde Observatory will have their regular meeting one hour before that of the Prairie Astronomy Club on Tuesday, November 28 at the Observatory. Meeting time is 6:30 p.m.

## FAIRLY BRIGHT COMET FOR SOUTHERN OBSERVERS IS WORKING NORTHWARD

Southern observers have been tracking a fairly bright comet (which reached magnitude 5.0 at the end of November), with many reports coming in from Australia. However, the comet, designated 1978f and named Meier for its discoverer, is so far south that most observers in the United States will not get a glimpse of it until well after January 1. And, by that time, Meier will have passed perihelion and begun to fade. Comet Meier will begin to reach southern Lincoln skies around February, 1979, and the ephemerides for its arrival are as follows:

	<u>RA1950</u>	<u>Decl1950</u>	<u>Pred.Mag.</u>
FEB1	20h54.24m	-41°31.2	
6	21 09.93	-40 05.4	8.0
11	21 24.33	-38 39.4	
16	21 37.58	-37 14.1	8.4
26	22 01.16	-34 28.6	

*(Continued on Page 4)*

the elimination of an experiment, or the degradation of its performance, because of unessential sterilization requirements.

**RASC HANDBOOKS ARRIVE!** (From p.1)

come, first-serve basis. Price to members is \$3.50. (The handbooks retail for \$4.00 this year.) Because we ordered early, for once the books are here in plenty of time for the start of the new year, but this is our only order, so you should be sure to attend this month's meeting if you want one.

APR 17	23	19.96	-23	34.6	10.0
	27	23	30.09	-22	03.0
MAY 7	23	38.60	-20	44.7	10.4
	17	23	45.46	-19	39.7
	27	23	50.64	-18	47.9

**ECLIPSE EXPEDITIONS ARE MULTIPLYING**

A recently received listing of groups and organizations planning expeditions for the total solar eclipse on February 26, 1979, includes over 20 individual clubs in the Astronomical League.

A reminder that the Prairie Astronomy Club is co-sponsoring an expedition with the Department of Physics at Wesleyan. See Carroll Moore for details.

**COMET MEIER EPHEMERIDES**

(Continued from Page 3)

MAR 8	22h21.5m	-31°52.9	9.0
	18	22 39.18	-29 28.9
	28	22 54.65	-27 17.6
APR 7	23 09.18	-25 19.5	9.5

THE PRAIRIE ASTRONOMER  
c/o PRAIRIE ASTRONOMY CLUB, INC.  
P.O. Box 80553  
Lincoln, Nebraska 68501

**FIRST CLASS MAIL**

Mr. Earl Moser  
Hickman,  
Nebraska 68372

9/79

