

ECOLOGY

Cautious Mars Landing

Earth people are cautioned by a scientist about landing instruments on Mars since the possibility still exists that intelligent beings inhabit the red planet.

► EARTH PEOPLE were urged to be extremely cautious before landing instruments on Mars.

There is a "remote possibility" that the planet has intelligent life. If so, it might not be a good idea to drop "elaborate robots" on Mars before finding out more about the red planet.

As Dr. Frank Salisbury of Colorado State University explains it: "I can imagine how I might react if such an apparatus landed in my back yard and started grabbing for my apple tree, the cat, and maybe me!"

His speculative conclusion is based on a detailed examination of all that is now known about conditions on Mars. To account for observations, Dr. Salisbury believes that the idea of life on Mars is the most likely, and that this life form is a "very well adapted and flourishing one," not one struggling for existence such as the lichens so often suggested.

The conditions under which life could

exist on Mars seem to eliminate all life forms known on earth, Dr. Salisbury reports in *Science*, 136:17, 1962. However, higher plant forms would require the fewest changes from known earth forms to adapt to Martian conditions.

Given plant-like organisms that have solved the problem of growth on Mars, Dr. Salisbury believes that "mobile forms" comparable to earth's animals should also exist.

It is then but one more step, although a big one, to intelligent beings. He urged that earth people should at least try to keep their minds open so that they could survive the initial shock of encountering the beings.

Whatever life forms exist on Mars, Dr. Salisbury believes they must meet the following five requirements:

1. The suspected organisms must be visible or must form visible colonies that cover the ground rather extensively.

2. The suspected organisms must account for the color and the observed color changes.

The color changes should take place in response to increases in temperature and atmospheric moisture.

3. The suspected organisms must account for the observed changes in size and shape of the Martian areas—that is, they must migrate or grow with some rapidity, and they should be able to reemerge from a covering of yellow dust.

4. The suspected organisms must exhibit these various responses within the Martian environment, which is characterized by low temperature and great diurnal fluctuations in temperature—an extremely thin atmosphere, containing a considerable amount of carbon dioxide but only traces of oxygen or water, and occasionally penetrated by ultraviolet light.

5. The suspected organisms must conform to certain fundamental principles of ecology, such as the cycling of elements.

Dr. Salisbury notes that a manned landing could solve all the problems raised by his study. However, even telescopic observations from a satellite, especially one orbiting Mars, could provide extremely valuable data.

Concerning the suggestions that the two satellites of Mars, Phobos and Deimos, might be artificial satellites, Dr. Salisbury suggests that they might have been launched into orbit between 1862 and 1877.

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PUBLIC HEALTH

Practical Nurses Oppose R.N. Stand on Licensing

► QUALIFIED PRACTICAL nurses will be on state boards of nurse examiners if a resolution by the National Association for Practical Nurse Education and Service, Inc., bears fruit.

At a business session of the NAPNES in Washington, D. C., fear was expressed that "many unqualified persons will seek licensure" during a waiver period provided by states seeking a mandatory law, thus endangering the health of the nation.

The presence of Licensed Practical Nurses (L.P.N.s) on state boards of nurse examiners is contrary to the philosophy of the American Nurses Association, organization for Registered Nurses (R.N.s) only.

The American Nurses Association board of directors has twice affirmed its belief that only the general and professional training and experience of an R.N. qualifies a nurse for membership on state boards of nurse examiners.

The R.N. must be a high school graduate and have at least three or four years of training before she can be a registered nurse. The Licensed Practical Nurse is trained for one year only. Her age range and education requirements differ from those of a candidate for the R.N. diploma.

State boards of nurse examiners exist 1. to license applicants, and 2. to accredit all nursing schools. The NAPNES as an organization demands representation on the board because it includes practical nurse licensing and accrediting of practical nursing schools, of which there are some 700 in the U.S.

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MOON CAPSULE—The three-manned Apollo space capsule is shown in a full scale model about 13 feet wide and 12 feet high. One astronaut is shown in his couch flying the spacecraft, another is sleeping and the third takes a navigational bearing. The astronauts will wear light coveralls while onboard during the journey to the moon.