

Rubella vaccine ready

proposed monument land have already been purchased for subdivision and subsequent land or housing development by a private firm.

K. C. Wofford of the Central Enterprise Realty Company in Colorado Springs says his company has already begun to subdivide the land for private use.

The land was purchased from a private owner, A. W. Gregg of Kyle, Texas, who had kept it off the private market for 17 years waiting for an offer from the Federal Government to purchase the land for the national monument. The sale price to the realty company was \$150 an acre. If the Government were to purchase the 1,800 acres back, Prof. Leopold estimates, it would cost almost double what the Colorado Springs' company paid for it.

Wofford says there are no plans to purchase any more of the land within the area of the fossil beds and he indicates that his company may sell the land back to the Government. But, as yet, the Government has not allocated any funds for that purpose.

According to a recent report from the Bureau of Outdoor Recreation, land prices are soaring. The seven percent projected increase in land value has already raised the estimated cost of acquisition \$126,000 since February 1967, when the last bill was introduced in Congress. The scientists feel that using available funds for purchase is the immediate problem. Both the Department of the Interior and the Colorado Open Space Coordinating Council, Inc., agree that development of the monument itself can be delayed for several years if necessary.

Colorado people, says Prof. Leopold, are anxious about the situation. They are very much in favor of the proposed national monument. It would provide an educational attraction to a little known part of Colorado and preserve a national treasure.

"Destruction of such a site," says Prof. Richard Beidleman of Colorado College, "is comparable to what we might think of as a geological book-burning, especially devastating because there is only one irreplaceable volume on this subject in the universe."

"It is worth mentioning," says Dr. Richard C. Bradley, of Colorado College, "that we have here a most unusual circumstance, perhaps without precedent in recent legislative history: A proposal is being made to put a substantial piece of land under the protection of the National Park Service, and it stands virtually unopposed. . . . If this bill fails to pass, it will not be because powerful lobbies were arrayed against it, but because this Congress, deeply involved as it is with the weightier issues of the day . . . could not seem to find the time to consider it."



Merck Sharp & Dohme

Pekin duck embryos are used to grow live-virus vaccine for German measles.

If the cycle that began in 1920 prevails, German measles viruses will be around the United States in droves by late 1970 or early 1971. The last time it struck in epidemic proportions, in 1964, the virus killed or deformed the children of 50,000 women who were infected during the first three months of pregnancy.

If it strikes again in 1970 as predicted, scientists will be ready. Health, Education and Welfare Secretary Robert H. Finch last week approved the first vaccine against rubella, urging that it be used widely among school-age children who might otherwise transmit the disease to their mothers, but cautioning against its routine use in women of child-bearing age because its safety in this group is questionable.

The license, expected since April (SN: 4/12, p. 355), was issued to Merck Sharpe & Dohme in West Point, Pa., following a two year study of the vaccine's safety and effectiveness by the

Division of Biologics Standards of the National Institutes of Health. Tested in 18,000 children, the live virus vaccine induced virtually no side effects and is effective for at least three years. Children given the vaccine in initial pilot studies in 1966 still have antibodies to rubella viruses in their blood.

Research for a vaccine has been underway since 1962 when scientists at Harvard and at Walter Reed Army Hospital isolated the rubella virus. More than 650,000 doses of the vaccine, produced in a duck embryo cell culture system developed by Drs. Maurice Hilleman and Eugene Buynak, are immediately available. Merck plans to distribute two million doses by August.

Regulations governing the standards of another vaccine grown in a dog kidney cell culture also have been set. Although a final license has not been issued, the Philips Roxane Laboratories in Columbus, Ohio, is expected to receive one by fall.

\$1.3 BILLION LATER

MOL shot down

The Defense Department's Manned Orbiting Laboratory has been fighting an uphill battle ever since Defense Secretary Robert S. McNamara first proposed it late in 1963. Critics claimed that the military space station, designed to keep two-man crews in orbit for a month at a time, would largely duplicate the functions of the National Aeronautics and Space Administration's Apollo Applications Program, also designed for extended stays aloft. Others feared that the project might put the U.S. in an unpopularly militaristic position in space.

For those reasons, as well as the

competition among projects for funds even within the Defense Department, last week the MOL was killed.

The various activities scheduled for the MOL would have included detailed surveillance and photography, as well as research in materials, biomedicine, remote sensing and other areas. It has often been assumed, however, that plans also included such controversial subjects as testing of weapons systems (even non-nuclear ones) and the inspection of foreign satellites.

Also the increasing sophistication of unmanned military satellites may well have made MOL obsolete.

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USAF

MOL: A 5-year pregnancy miscarries.

When President Lyndon B. Johnson first gave the MOL the go-ahead in August 1965, the plan was for a \$1.5 billion developmental effort, leading to five manned flights beginning in 1969. Since then, however, costs have skyrocketed, and the target date for the first manned flight slipped to 1972.

The reasons, said Deputy Defense Secretary David Packard in announcing the cancellation last week, were the need for unexpected design changes, the costs of improving the safety of the design and the expense of stretching out the program, because of limited availability of funds. Earlier this year, the Nixon Administration made an attempt to hold down costs by cutting the number of manned flights to four, even as the Air Force was announcing that it was planning to add more astronauts to the 14 already on the rolls. Despite such trimming, the estimated cost of the program had grown to at least \$3 billion.

In considering whether to shoot down the program, on which some \$1.3 billion has already been spent, the Defense Department was faced with the choice of slashing numerous small programs or one big one. "We have concluded," said Packard, "that the potential value of possible future applications of the Manned Orbiting Laboratory was not as valuable as the aggregate of other Defense Department programs that would need to be curtailed to achieve equal reductions."

Another factor is the fact that unmanned satellite technology has in some ways surpassed plans for the MOL, largely because the Air Force has not had any manned space programs such as NASA's Gemini and Apollo with which to work out new developments. Several MOL-related experiments, in fact, had been scheduled for the Apollo Applications Workshop. These may well be eliminated, although other military research projects may take their place to make up for the MOL's absence.

SCIENTIFIC INFORMATION

Controlling the flood

The quantities involved in the production of scientific and technical information are enormous: roughly 40,000 research papers in a year in physics, several times that number in chemistry, biology and agriculture, and even more in medicine. In all fields of science and technology together the numbers might reach two million articles totaling 10 million pages. They appear in 30,000 specialized journals worldwide and represent the central product—not simply a by-product—of scientific research.

Then-Sen. Hubert H. Humphrey once estimated that the inability to manage the flood costs the U.S. some \$2 billion a year in lost time and the needless duplication of research.

Some \$357 million a year is currently being spent by Government alone on information, but there is little coordination of efforts by Government, industry and the scientific societies.

Because of the magnitude of the problem, the National Academy of Sciences and the National Academy of Engineering were asked by the National Science Foundation to study it. The report by the academies' joint Committee on Scientific and Technical Communication (SATCOM), now out after three years, has no easy answers.

The committee:

- Urges formation of a nongovernmental coordinating commission on scientific information.
- Chides the scientific societies for not being aggressive and innovative enough in their information activities.
- Reminds Government agencies of their responsibility to pay for publication of findings produced by the research they support.
- Attempts to encourage scientists and engineers to accept greater responsibilities for repackaging research findings in more useful forms.

The NAS-NAE committee's central recommendation is for the formation of a Joint Commission on Scientific and Technical Communication to stimulate greater coordination among private groups and help bring about more interaction between them and Government agencies. The group should be housed in the two academies; they seemed to satisfy best the group's final criteria for a "broadly representative, nongovernmental body of high prestige" with close ties to both scientists and the Federal complex. Centralized authority to dictate directions was specifically excluded from the recommendation.

One section of the SATCOM report is devoted to the need for more review articles and data compilations to orga-

nize and evaluate what is known about a scientific subject and present it in language which a worker can understand. The preparation of such items—which often requires great intellectual creativity—has not kept pace with the flow of developments, the report notes.

Dr. Burton W. Adkinson, director of information programs for NSF, thinks this is among the most significant of SATCOM's recommendations. "The difficulty in getting top flight scientists and engineers to do this type of thing is because they don't get any brownie points for it. I think the weight of the academies behind the idea will do a lot to encourage them to do so."

PATENT TREATY

Final touches on a draft

Among the headaches involved in patenting an invention in the days of stampeding technology, one of the worst, particularly for small firms, is getting protection in foreign countries. A multiplicity of forms and standards makes it difficult and expensive to file in all the countries where protection is needed.

For two years the United International Bureau for the Protection of Intellectual Property (BIRPI) has been sponsoring a treaty which would provide for a single filing on a standard form in the native language of the applicant, to be valid in all countries approving the treaty (SN: 6/17/67, p. 567).

This week, 10 of the 80 BIRPI members meet in Geneva to put final touches on the treaty. If all goes well in Geneva, the final draft should be ready for submission to a convention of the 80 member-nations in the United States by April of next year.

If money is approved by the U.S. Congress to host the two-to-three-week conference, the formal treaty would then be submitted to the individual countries for ratification.

U.S. Patent Commissioner William E. Schuyler Jr., the U.S. delegate to the Geneva conference, is cautious about prospects for the treaty.

"There is no guarantee the United States will sign next April," he says. "It will take a year or two after that before Senate approval (of the treaty). Because it won't be submitted until the following Congress, it might be ratified in 1971 at the earliest."

Schuyler estimates that it will be sometime between 1973 and 1975 before there are enough signatories to make the treaty effective. ◇