Air Force to Develop Manned Orbiting Laboratory

Secretary of Defense Robert S. McNamara today assigned to the Air Force a new program for the development of a near earth Manned Orbiting Laboratory (MOL).

The MOL program, which will consist of an orbiting pressurized cylinder approximately the size of a small house trailer, will increase the Defense Department effort to determine military usefulness of man in space. This program, while increasing this effort, will permit savings of approximately $100 million over present 1964-1965 military space programmed expenditures.

MOL will be designed so that astronauts can move about freely in it without a space suit and conduct observations and experiments in the laboratory over a period of up to a month. The first manned flight of the MOL is expected late in 1967 or early in 1968.

In initiating the MOL program, it was decided to terminate the DYNASOAR (X-20) program because the current requirement is for a program aimed directly at the basic question of man's utility in space, rather than a program limited to finding means to control the return of man from space. The DYNASOAR project was designed to do the latter.

The DYNASOAR vehicle is a one-man spacecraft, launched from a TITAN III booster. It was designed to test the feasibility of maneuverability during reentry, thus allowing the pilot to choose a landing site and land in a manner similar to a conventional aircraft.

The MOL will be attached to a modified GEMINI capsule and lifted into orbit by a TITAN III booster. The GEMINI capsule is being developed by NASA for use in the APOLLO moon shot program. The TITAN III is being developed as a standardized space booster by the Air Force.
Astronauts will be seated in the modified GEMINI capsule during launch, and will move to the laboratory after injection into orbit. After completion of their tasks in space, the astronauts will return to the capsule, which will then be detached from the laboratory to return to earth.

The design of the MOL vehicle will permit rendezvous in space between the orbiting laboratory and a second GEMINI capsule, so that relief crews could replace original crews in the laboratory. Such an operation would be undertaken if man's utility in a space environment were demonstrated and long operations in the space laboratory were needed.

The MOL program will make use of the existing NASA control facilities. These include the tracking facilities which have been set up for the GEMINI and other space flight programs of NASA and of the Department of Defense throughout the world.

The laboratory itself will conduct military experiments involving manned use of equipment and instrumentation in orbit and, if desired by NASA, for scientific and civilian purposes. Preliminary ground or aircraft simulation will be made in all cases before full commitment to space experimentation.

The problem of reentry conditions, materials and techniques can be studied at substantially lower costs without actually using a manned vehicle like DYNASOAR. The MOL program will permit much more extensive exploration of the in-flight capabilities of the manned space vehicle. If results of the MOL and the unmanned reentry programs warrant, a new and more advanced ferry vehicle program may be initiated some years in the future.