

# The Pentagon backs manned space stations

by Marsha Freeman

In a shift in policy, the military services in the Department of Defense have apparently come to the conclusion over the past few weeks that developing a permanent manned presence in space will be necessary to implement President Reagan's space-based beam weapon defense program. A new joint-services study concludes that new military missions and technologies "justify Defense Department participation in a manned national space station as a user interested in exploiting technical opportunities and minimizing technological surprise."

The report, prepared by the Air Force Scientific Advisory Board, the Naval Research Board, and the Army Science Board, recommends that the Defense Department sponsor more detailed studies on the military value of a space station.

Last April 11 the President had requested that the Senior Interagency Group for Space conduct a study to see whether the National Aeronautics and Space Administration (NASA) should proceed with space station development. The head of that interagency group has been National Security Adviser William P. Clark, and the national security implications of station development were considered an important element of the study. The Pentagon is currently contributing 5 percent of the cost of the space station studies that NASA is conducting.

Until recently Defense officials had denied that there was any military justification for supporting the NASA space station effort. Speaking at a joint NASA/American Institute of Aeronautics and Astronautics conference in July, Undersecretary for Defense Development, Research, and Engineering Dr. Richard DeLauer stated that the military had not identified any military function for a U.S. manned space station that could not be better carried out at present by unmanned spacecraft. He said that the beam program "would have a space element. Whether it will be to the degree that some advocates for tremendous things in space, like ballistic missile defense, might want, we will have to wait and see."

Many of the military uses of a space station are identical to those in the civilian sphere of activity. Man in space can repair expensive and vital communications satellites and oth-

er satellites whose continuous functioning is crucial, rather than bringing them back to Earth for repair.

According to the tri-service report, the station will serve as a laboratory for "conducting experiments relative to military operational functions, facilitating space systems development, collecting critical data, conducting basic research in a space environment and exploring the value of man in space, particularly expert observers."

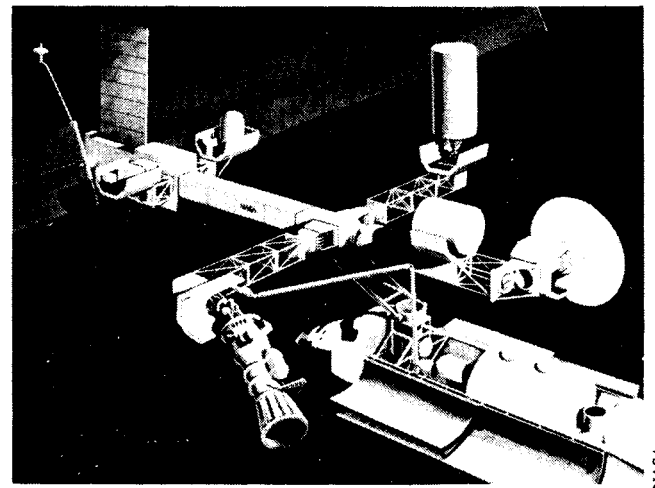
The manned space station's military uses may include verification of missile early warning systems by humans, rather than relying 100 percent on hardware, *Aviation Week* reports.

New technologies for every part of beam weapon development, including sensing, pointing, and tracking, and for the beams themselves, can be tested by a crew on board a station for longer periods of time than the one week the Shuttle is in orbit. This will cut drastically the development time and cost of new generations of technology.

Large space structures, such as antennas for communications, mirrors, and other beam weapon components, will be able to be constructed in space, without the size and weight limitation of a single Shuttle flight. Components can be stored attached to the space station or in orbit nearby, then assembled and deployed when they are needed.

The station will also be a transportation node for delivering and retrieving satellites and other spacecraft at the geosynchronous altitude of 23,000 miles. Though the station will be in low-Earth orbit, manned and unmanned Orbital Transfer Vehicles parked at the station will be able to visit our space assets in a higher orbit.

The Defense Department has apparently begun to realize that its objections to the NASA space station program—mainly that as a civilian facility, it would not be defensible against attack in wartime—are counterproductive, since the experience of designing and building the first NASA station will lay the groundwork for dedicated military stations later on.



An artist's conception of a Space Shuttle servicing a space station.