

# Budget slashed for fusion, space program

by Marsha Freeman

When President Reagan sent his FY 1986 budget to Capitol Hill on Feb. 4, no one was expecting great increases in the energy, space, or science programs due to all the fuss about the projected deficits. There was no question in anyone's mind, however, that the President would insist on increased funding for his Strategic Defense Initiative. Yet, while the \$3.8 billion SDI request is more than double the FY 1985 level, the deep cuts in the magnetic and laser fusion programs and the NASA space-station project sacrifice the scientific research and infrastructure development key to the SDI.

President Reagan is getting bad advice from his science adviser, the budget office, and his economic advisers. The SDI will be greatly handicapped without research in plasma physics and technology development in the magnetic and inertial fusion programs.

The civilian space program, which is the nation's greatest technology driver for growth, is also slated for real cuts. The space station, which the President designated be built within a decade, is needed as soon as possible, and could and should be built by 1992. It will provide industry, foreign nations, and the military with a testing ground for crucial new technologies, a repair facility for spacecraft of all kinds, and an opportunity to extend the frontiers of space science and exploration.

The President cannot capitulate to budget cutters and have his beam-weapon defense program at the same time.

## Fusion dismantled

For the past three years, Dr. George Keyworth, the President's science adviser, has been in charge of policymaking for the magnetic fusion program. Despite the fact that Congress nearly unanimously passed a law in 1980 committing this nation to an Apollo-style effort to demonstrate commercial fusion power by the turn of the century, Keyworth dictated that the program remain in the "basic research" phase.

The administration did ask for a modest increase in the magnetic fusion program for FY 1985. The Congress would not agree to spend almost a half billion dollars on a "research project." Last year, therefore, the fusion budget was cut back to \$437 million from a request of \$483 million.

This time, the administration took the knife to the fusion budget itself, and is requesting \$390 million. At that level, current experiments cannot continue on schedule, achievement of energy breakeven will be postponed, perhaps indef-

initely, and construction programs will likely be terminated.

Since 1977, the magnetic fusion budget has not even kept up with inflation. At over \$300 million in 1977, by 1985 the funding was only about \$200 million in 1977 dollars. The current cut, if not restored by the Congress, will shrink fusion research back to the level of the early 1970s, and the United States will relinquish its unchallenged leadership in the field.

In inertial confinement fusion, the picture is even worse. The FY 1986 funding level for laser and electron-beam development has been cut to \$70 million. Crucial science programs at universities will be sacrificed, and even if the SDI office does fund some of the work dropped from the fusion budget, civilian plasma physics research and power reactor development will be eliminated.

## Space station postponed

The Office of Management and the Budget has cut \$50 million from the NASA request for next year's funding for the space station. According to NASA Administrator James Beggs, the \$230 million request will postpone the operation of the Earth orbital station by about one year, contradicting Keyworth who stated in his budget briefing that the OMB cut would only cause a six-month delay.

The space station, except for the SDI, is the only major national initiative made by the President personally. NASA developed a budget profile for the project last year which indicates that about \$300 million would be required in FY 1986 to meet a 1992 deadline.

Before the President announced his initiative in the 1984 State of the Union address, Keyworth stated publicly that he did not see any real purpose to a space station. He insisted that NASA not start on the program until a comprehensive picture of mission requirements could be made.

During the first week of February, the 11 nations of the European Space Agency decided to participate in the U.S. space station by building the Columbus module. Japan has budgeted for studies to define their participation, and the Canadians will most likely join in.

Under questioning during budget hearings before the House Committee on Science and Technology on Feb. 6, Beggs stated that our foreign partners do not mind a small delay in the program, since it will give them more time for their work as well. The real issue is whether the Europeans and Japanese will start to question U.S. reliability as a partner in such a large undertaking, as they have already been forced to do because of cuts in jointly funded space science and Space Shuttle programs.

Keyworth's stated view is that the United States can no longer "afford" to be number one in science and technology. The question is, will President Reagan throw this doubletalk overboard to follow through on his own personal commitment to build an effective beam defense? That requires unwavering support for frontier science and technology development.