Privatization could kill the American space program

by Marsha Freeman

During the month of March, the U.S. space program's vanguard project, Space Station *Freedom,* has been the target of madcap budget slashers in the Bush administration. In order to cut one of the most popular programs that the government spends taxpayers' money on, and get away with it, the Office of Management and Budget has tried the old "the private sector should pay for it" trick. The OMB grabbed a handful of new starts NASA had planned for next year's fiscal 1990 budget and removed them, along with the $208 million to pay for them, from the NASA budget request.

From hearings recently held on Capitol Hill, it is clear that the Congress is not going to fall for this ploy to disable *Freedom*. NASA officials began negotiations with the OMB on the ridiculous proposal to have industry build facilities and then lease them back to NASA, soon after it was made. At hearings before the House subcommittee on Space Science and Applications on March 23, outgoing NASA Administrator James Fletcher announced that he had started to back the OMB down: The Budget Office had dropped the key Flight Telerobotic Servicer from its list of "privatized" projects.

A $200 million cut may not be a large percentage of the $13-plus billion requested by the administration for fiscal 1990—a healthy 22% increase over this current year. But the original request NASA made to the OMB last fall was over *$14 billion,* needed to start the Space Station in earnest and pay for the increased number of Space Shuttle flights next year. The nearly $1 billion OMB cut from the NASA request was targeted at the modestly funded but crucial new starts required to move the Space Station and other aspects of space exploration forward.

Who are the OMB geniuses that come up with these self-destruct programs? Current OMB head Richard Darman, according to *Aviation Week* magazine, was the key White House fundraiser for a small, privately financed space facility, now-defunct, which was last year's effort to wreck the international Space Station.

'Freedom' under fire

Three of the large items targeted by the OMB budget cutters are needed for the preparation and assembly of the Space Station *Freedom,* and the training of the astronauts who will be up in space putting it together and using it.

In fiscal 1990, NASA is supposed to start development of the Flight Telerobotic Servicer, requiring $30 million. The OMB had removed that money from the budget request, and proposed that industry pay to build it. The FTS is a multipurpose robotic system which will be used initially to assemble and attach modules and parts of the station to the central truss structure, for maintenance and repair of the station, and for servicing visiting spacecraft.

Industry officials had described the OMB's "private financing" scheme as "absurd." Why would any company want to raise money to build a piece of equipment that will not be flown until 1995 at the earliest, and will have no commercial applications until years after that?

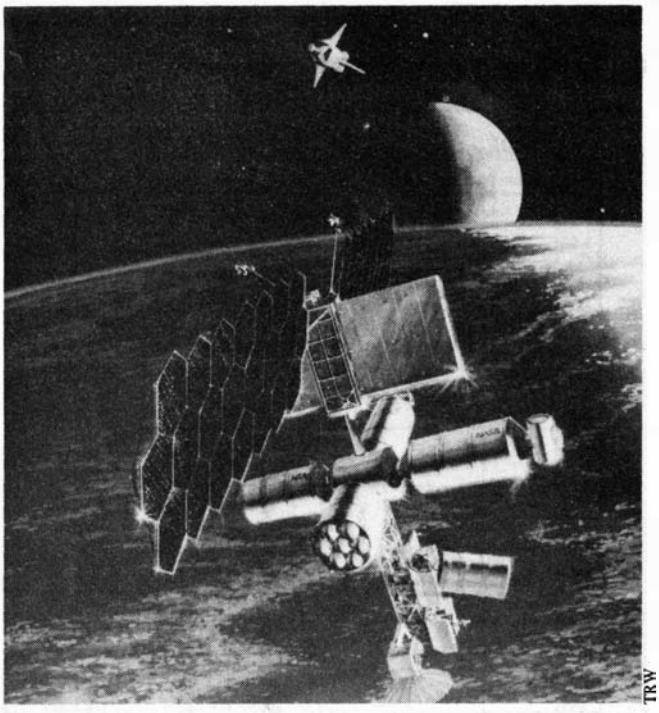
Under the now-dead OMB plan for FTS, if the private sector had not raised the money on time, it would have meant delaying the project, and the assembly of the station. Making the situation even more ludicrous, Congress had mandated that a flight demonstration of the FTS technology be flown on the Space Shuttle by 1991. Meeting that schedule would be impossible if NASA had to wait until FY 1991 to get the funding back into its budget.

In addition, NASA had released a request for proposals for industry bids on building the FTS last November, and is supposed to select the contractor by April. No company that has submitted a proposal to build FTS has any intention of raising the money. Dr. Fletcher was able to get the OMB to drop the FTS from its hit list, but the fate of the other programs has not yet been determined.

These include a new $30 million neutral buoyancy tank to be constructed at the Johnson Space Center, for training Space Station astronauts for extravehicular activity (EVA) missions.

At the Kennedy Space Center, NASA plans to build a Space Station processing facility, which will prepare first the modules and other integral pieces of the station, and then the government and commercial payloads that will visit the station for integration with the Shuttle and then launch.

In hearings, Dr. Fletcher explained that the facility would be dedicated to the government-funded Space Station work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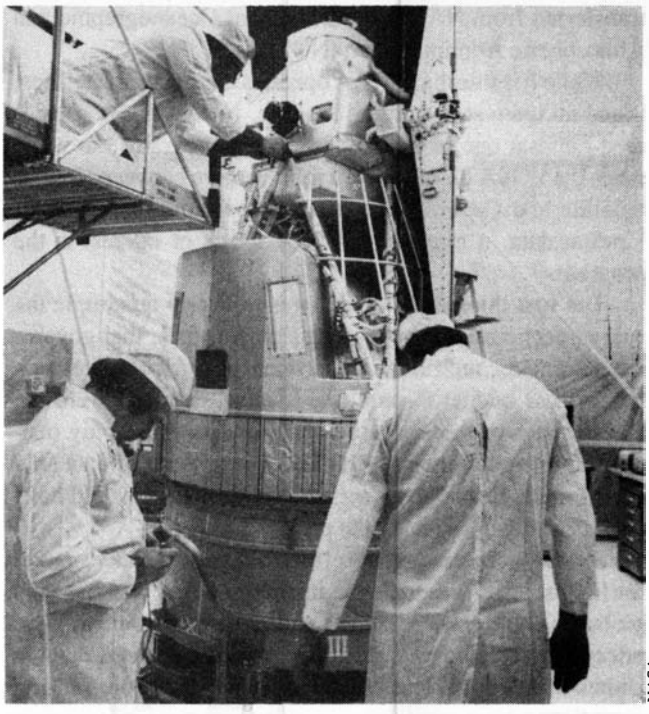
NASA

Left: artist's rendering of a future manned NASA Space Station. Plans for building a Space Station are being subjected to ferocious budget cutting, as chunks of the program are slated to be sold off to the private sector. The same treatment was earlier accorded the Landsat program (right), undermining the U.S. leadership role in remote-sensing operations.

for the first few years, and then could be leased by industry to prepare their payloads. It does not appear to make any sense to try to finance and build the facility the other way around. The processing facility is a $43 million budget item.

The other *Freedom*-related hardware slated for privatization is a station docking module, for $4 million, which, it would seem, could have been chosen by putting a blindfolded OMB bureaucrat in front of a dart board. One could theoretically claim that the shower and toilet on *Freedom* will also, sometime in the future, be used by industry astronauts who accompany commercial payloads to space. Perhaps companies should chip in now to build those, too.

The fourth large item targeted by the OMB for privatization, is an observational instrument laboratory, to be built at the Jet Propulsion Laboratory. This $40 million ground-based facility is designed to develop, test, and assemble new instruments and sensors for a wide array of space science and planetary missions.

Failure as precedent

One might think that if the OMB is making these irrational proposals, it might be because such an approach has somehow been successful in the past. Think again.

In 1973, during President Nixon's budget cutbacks, government funding was eliminated for the Advanced Communications Technology Satellite (ACTS) program, designed to keep the United States in a position of leadership in communications technology. The reason given for cutting off the NASA research and development effort, was that since private industry would benefit from the research, they should pay for it. When NASA got back the ACTS program in 1979, the historical U.S. lead in this technology was quickly disappearing.

The case of Landsat

The stupidest "private enterprise" initiative in the space program is the Earth remote-sensing program, known as Landsat. This program began in 1972 as a NASA-funded undertaking, and progressed through the development of new remote-sensing techniques and equipment, and the launch of a series of satellites which revolutionized the way the Earth can be examined from space.

In 1979, the Carter administration decided that Landsat was such a promising system—as indeed it was—that it could be thrown out of the government fold, to fend for itself in the marketplace. Though it was clear that data from Earth remote-sensing could benefit farmers, agricultural analysts, cartographers, oil and mineral industries, land use planners, and many, many others, it is such a complex and costly technology that great care was needed to make it useful and affordable to the many who could benefit from using it.

Just at the moment when NASA should have *increased* Landsat spending to develop and build new technology and more satellites, as well as lead a broad educational drive to teach companies, farmers, universities, city and state governments, scientists, and others how to use Landsat, it was

transferred from NASA to the National Oceanographic and Atmospheric Administration (NOAA).

While it is true that NOAA operates the weather satellites, it had no interest in running Landsat. NOAA never considered Landsat one of its most important programs, so when when the EOSAT Company, a joint venture between Hughes Satellite and General Electric, took over the marketing of Landsat data, it reinforced NOAA's lack of interest in the program.

The first thing EOSAT did was to nearly quadruple the cost of each Landsat image. This meant, first, that government agencies, such as the Department of Agriculture, which had a fixed budget to purchase Landsat data and were the largest users of the images, could now purchase only one-third to one-quarter as much data. The amount of data sold was shrinking, though an *increase* in data sales would have been one way of reducing the price.

Second, it meant that the effort to expand the user market for Landsat data was halted in its tracks. Many of those who probably could have become Landsat data customers, were priced out of the market. Third, it virtually ensured that the United States would lose its leadership role in remote-sensing operations.

Over the past three years, the French SPOT system has entered the "free" market with government subsidies. The Soviet Union, using remote sensing since the dawn of the space age for military reconnaissance, has offered images for sale with very high resolution. Soyuzkarta, the state mapping agency, is selling images, as long as they are not images of the Soviet Union. Only the U.S. government expects remote sensing to sink or swim on its own.

There are now two aging Landsat satellites in orbit, past their projected lifetime, but still operational. With unabashed cynicism, the Reagan administration put *nothing* in the current FY 1989 NOAA budget for Landsat operations, because they expected the two satellites to fail! Not much better, Congress funded Landsat operations for only six months. On March 31, the $9.4 million available was to run out. For want of a measly additional $9.4 million, the United States was ready to shut off Landsat.

Vice President Dan Quayle, head of the newly reconstituted National Space Council, intervened in early March, and organized the government agencies which use Landsat data to come up with the money. The entire U.S. remote-sensing program is now under review.

Lest anyone think that this privatization effort saves money, observe the record of the Tracking and Data Relay Satellite. This multi-satellite system was built by Contel Federal Systems, and is leased to NASA. The total cost to the space agency will be $3.1 billion. Fully $1.1 billion of that is interest on loans that Contel contracted with the Federal Finance Bank.

OMB has found a process with a proven track record of getting rid of unwanted "expensive" government R&D programs—turn them over prematurely to "private enterprise."

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