

CBO Lists Options for Cutting R&D

The Congressional Budget Office (CBO) has provided Congress with a list of options for reducing the federal budget deficit, including delaying or cancelling a number of science and space projects. Many of the suggestions run counter to the legislative agenda outlined by President Bush.

In *Reducing the Deficit: Spending and Revenue Options*, CBO says it has not compiled a set of recommendations, only options for reducing the projected federal budget deficit for 1990 from \$141 billion to \$100 billion as required by the balanced budget law. One money-saving option would be to kill or defer the \$5.9-billion Superconducting Super Collider. CBO says the particle accelerator "during its construction would absorb 13% of the funding for basic research in the physical sciences and might very well crowd out other basic science research." The report goes on to say that "spending on many 'little science' projects may provide a much larger return on investment, both in terms of knowledge and practical uses. . . ."

Killing the international space station program at NASA would save \$16 billion over the next 5 years, says CBO. "Many civilian scientific goals could be met earlier and at a lower cost with a modest program" that relies on the space shuttle orbiter and

unmanned flights, the agency notes.

In addition, cutbacks in new spacecraft development programs for NASA's space science programs could produce further savings, CBO adds. Even if the Advanced X-Ray Astrophysics Facility and the Space Infrared Telescope Facility are postponed, the agency says the scientific community should still have sufficient new data to study. This will be provided by the launch of other orbiting observatories in the next few years.

A 10% reduction in the research budget of the National Institutes of Health would save about \$1.7 billion between 1990 and 1994. CBO says NIH could limit overhead charges on grants that are imposed by institutions employing researchers. Another possibility would be for NIH to reduce the number of grants awarded or to shave the size of the awards by 10%.

The elimination of funding for the Department of Energy's clean coal technology program is listed as another deficit reduction option. CBO observes that there is evidence that the private sector is capable of performing such R&D without the federal government spending \$3.5 billion over the next 5 years. In his budget speech before Congress, Bush said this program was central to the Administration's acid rain control strategy.

■ MARK CRAWFORD

Fertile Ground for Arms Control

Giving a new twist to the "swords into plowshares" theme, Soviet officials have announced that their scientists are trying to devise ways to transform the chemicals contained in redundant chemical weaponry into agricultural fertilizers.

They have also admitted that there has been considerable opposition to the building of the chemical weapons destruction facility at Chapayevsk, which Soviet Foreign Minister Eduard Shevardnadze announced last month in Paris would start operation within the near future.

According to a report from the Soviet news agency Tass, the first weapons to be destroyed are tactical missiles containing the nerve agent VX, aircraft bombs containing 49 kilograms each of Sarin, and artillery shells each containing 8 kilograms of VX.

The plant is designed to extract the toxic agents from their containers (whose components will themselves be recycled as scrap metal), and then mix them with neutralizing agents to create what Tass describes as a "nontoxic reaction mass." The agency adds

that "in the future, scientists will think about how to make fertilizer from this mass, which is based on organic phosphates."

Major-General Stanislav Petrov, the recently appointed Commander of Chemical Troops for the USSR Ministry of Defense, said that although the two-step process of dismantling the munitions and then neutralizing their chemical contents was not the most straightforward or economical procedure possible, "it guarantees that ecological problems are dealt with."

Petrov was replying to the many demands apparently received from local townspeople and environmentalist groups in Chapayevsk that the destruction facility be relocated because of its potential danger. Tass reports that the protesters felt they had endured "too much" as a result of the negligence of the town authorities in the "years of stagnation" to believe that the new installation, whose completion is already said to be about a year behind schedule, "was not harmful either to them or to the environment."

■ DAVID DICKSON

Sakharov Declines to Run for Moscow Seat

Soviet physicist Andrei Sakharov has chosen to challenge the hierarchy of the USSR Academy of Sciences, rather than that of the Soviet Communist Party, over his disputed nomination as a candidate in next month's elections to the Congress of People's Deputies.

In January, the Praesidium of the academy decided not to approve Sakharov's candidacy—along with that of 107 others proposed by individual departments and institutes—for one of the 25 seats in the Congress of People's Deputies allotted to the academy. Sakharov's candidacy was not approved because he failed to receive more than half of the votes of those attending a special electoral meeting (*Science*, 10 February, p. 728).

Sakharov later was nominated by fellow physicists at the Lebedev Institute of Physics in Moscow as a candidate to represent a local Moscow constituency. This would have pitted him against a senior member of the Soviet Politburo. Last week, however, Sakharov issued a statement saying that he would refuse to stand as a candidate unless he was nominated by the academy.

"I am indissolubly tied to the academy, of which I have been a member for 35 years," Sakharov said in his statement, which was carried by the weekly *Moscow Times*. "I must be a candidate for the academy, or not at all." Sakharov, who took part in a demonstration outside the academy on 2 February to protest the procedures used to adopt its candidates, added that his decision "is based on support for the will of the scientific staff members of the academy."

Although Sakharov's decision has been criticized by some of his own supporters, who seem to have hoped that it would inflict a significant blow to the Soviet authorities, it has received encouragement from Roald Sagdeev, former director of the Institute of Planetary Sciences.

Sagdeev's nomination as a candidate was also rejected by an "enlarged Praesidium" meeting, held at the end of January. He, too, has rejected attempts to draft him as a candidate for a separate constituency, in order to be able to challenge the academy's decision.

Academy officials have so far rejected all proposals that a new meeting be held to reconsider the nominations. They have pointed out to the Electoral Commission that the meeting was organized in full compliance with the new electoral laws.

■ DAVID DICKSON