his opinion apparently carried some weight.

The relevant subcommittees on Capitol Hill have been supportive of Landsat all along. Staffers say that, even with Congress's effort toward a budget freeze, they will probably be receptive when Stockman's belated subsidy request arrives.

-M. MITCHELL WALDROP

## Pentagon Claims Export Controls Save Billions

The battle over export control policy, which has been raging within the Reagan Administration, in Congress, and among Western nations over the past few years, has been punctuated by wild assertions, but little hard data, about the costs and benefits of applying strict controls to the flow of technology to the Soviet Union. Now the Pentagon has produced a report that attempts to put a dollar value on the benefits of taking a hard line on technology exports.

The study, performed by a consulting firm called B-K Dynamics, contends that Western allies saved between \$14 billion and \$28 billion by denying applications for 79 licenses to export specific items to the Soviet Union in 1983 and 1984.

These huge savings were calculated by estimating how much the Soviet Union would have saved over the lifetimes of the technologies by buying them from the West rather than developing them itself. In addition, the study attempted to assess how much it would have cost the West to counter the technological boost the Soviet military would have gained by importing the technologies.

The potential savings in development costs to the Soviets range from \$6.6 billion to \$13.3 billion, while the cost to the West to respond, in terms of increased defense expenditures, would have been \$7.3 billion to \$14.6 billion, the report concluded.

The 79 license applications that were studied in detail were drawn from a list of some 2000 cases in which exporters unsuccessfully applied for permission from the U.S. government or other Western governments to ship specific technologies to the Soviet Union. The 79 cases in-

volve the most critical technologies, according to Brad K. Smith, Jr., who conducted the study.

The study also concluded that acquisition of some of the technologies would have shortened by 3 to 5 years the time the Soviets would require to develop antisubmarine warfare sensors, and would have speeded up development of command, communications, and control systems by more than 5 years.

Richard Perle, assistant secretary of defense for international security policy, admitted at a press conference when the study was released that "as with every economic modeling, the results are somewhat dependent on the assumptions." But he argued that the conclusions support the Pentagon's attempts to tighten U.S. controls, and they bolster the Administration's efforts to persuade U.S. allies to strengthen international mechanisms



Richard Perie

for restricting technology flows from the West to Soviet bloc countries.

The study did not attempt to assess whether the Soviets have acquired the technologies through other means, including illegal exports or espionage. Neither did it attempt to assess the economic benefits to the West that would have resulted from the sales. The conclusions have thus been criticized by congressional aides and some industry groups as presenting a distorted picture of the benefits while ignoring the costs of export controls. The Pentagon is, however, expected to use the numbers in the study as ammunition in the months ahead as Congress attempts to rewrite the Export Administration Act.

-Colin Norman

## New York Mayor Honors Scientists

New York Mayor Edward Koch, in an action that sets him apart from most local officials in the United States, has instituted a new program to recognize men and women living or working in the city who have made major contributions in science and technology. The first presentations of the New York Mayor's Award of Honor for Science and Technology were made on 21 May at a ceremony at Gracie Mansion.

The Mayor's interest in science was manifest last May when he created a 19-member science commission with a view to giving science and technology recognition similar to that long accorded the arts in many municipalities. The commission, headed by City College president Bernard Harleston, received some 75 nominations for the Mayor's Award, from which nine names were forwarded to Koch who himself selected the five prizewinners. They are:

Mathematician Lipman Bers, currently a visiting professor at the City University of New York, for giving "special encouragement" to women in mathematics and for his "tireless" efforts on behalf of the "human rights of persecuted scientists throughout the world."

Virologist Charlotte Friend of the Mount Sinai School of Medicine, for her discovery in 1957 of a virus that causes a form of leukemia in cats. "Her irrefutable data and persistence led to a fundamental rethinking of cancer research."

Cyril M. Harris, professor of engineering and architecture at Columbia, for designs credited for the superb acoustics at Avery Fisher Hall, the New York State Theater at Lincoln Center, and the Metropolitan Opera House.

Gerald D. Laubach, president of Pfizer, Inc., a major pharmaceutical firm with headquarters in New York, for "significant contributions to medicinal chemistry, drug discovery and drug development."

I. I. Rabi, university professor emeritus at Columbia, honored as "the elder statesman of Nobel laureates in science."

-BARBARA J. CULLITON