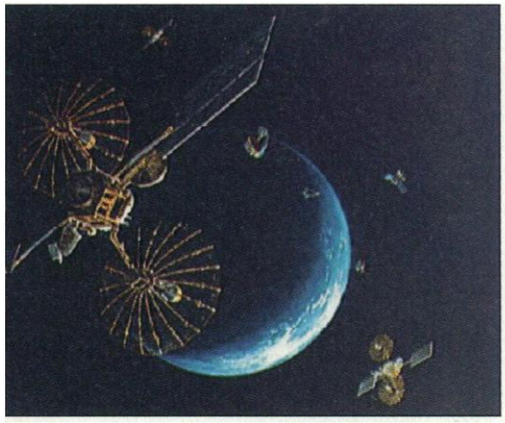
edited by JOCELYN KAISER

Asking for the Money Up Front

The Navy can get the funds it needs to build an aircraft carrier in one lump sum, but agencies like the Department of Energy (DOE) and the National Aeronautics and Space Administration (NASA) generally must ask Congress every year to continue building an expensive piece of research equipment or a new laboratory. The result can be higher costs to the taxpayer as projects get stretched—or even a slow and painful death, as proponents of the canceled Superconducting Super Collider can attest.



NASA

Stable trajectory? White House wants steady funding for projects like NASA's TDRSS.

The White House wants to change that. Its 1997 budget request asks Congress to set aside $1.4 billion to fully fund a handful of buildings, satellite programs, and environmental projects that have struggled to win annual budgets from Congress despite broad bipartisan support. The biggest chunk—$558 million—would go to NASA's Tracking and Data Relay Satellite System, while the agency's New Millennium program, which uses new technology to cut satellite costs, would receive $342 million. Most of the remainder is split among DOE facilities, including $35 million for the B-factory at the Stanford Linear Accelerator Center, $37 million for upgrading the Fermilab Main Injector, and $131 million to help complete the Relativistic Heavy Ion Collider at Brookhaven National Laboratory. In a separate but related request, the National Institutes of Health is asking for the entire $310 million needed to build its new clinical research center.

The approach is meant to force agencies to plan projects more sensibly, and then to let program managers do their job without worrying about the next year's budget. "We've done it in defense, so this is just catching up with the rest of the government," the official says. The plan may not prevent cost overruns, the official adds, "but it is a good thing to do." The question is whether Congress will agree to cede its annual power of the purse.

NAS to Spread Word On Value of Science

In a new foray into public education, the National Academy of Sciences (NAS) is about to launch a series of booklets and articles about how basic research benefits society.

The Basic Science Initiative, as it's called, was dreamed up about 2 years ago and is being overseen by NAS Vice President Jack Halpern, a chemist at the University of Chicago. The plan, Halpern says, is to "develop several case studies" of research that has led to "important practical developments" and describe "how these developments came about and in particular the role scientific research has played."

The articles are being written by prominent scientists, reviewing research in their fields that has led to new technologies. Writers and editors are then adapting the material—on topics ranging from the Global Positioning System to genetic testing and cholesterol-lowering drugs—for various audiences and adding illustrations. The final products will be distributed among scientists, policy-makers, science educators, and the public.

Halpern says the project is meant to further the public's understanding of science, not to lobby for science funding, which the NAS isn't supposed to do. But sometimes the same words can do double duty: The first brochures to be released this spring will discuss the implications of stratospheric ozone depletion, a research topic that some House Republicans say has been tainted by politics.

A Russian NIH In the Cards?

A plan intended to bolster support for the cream of Russia's biomedical research institutes by creating a Russian version of the U.S. National Institutes of Health may become reality if President Boris Yeltsin wins reelection in June.

The proposal, the brainchild of Evgeny Chazov, director of the Russian Academy of Medical Sciences' Cardiology Research Center in Moscow, would allow 10 to 12 existing institutes in Moscow and its suburbs to receive a joint appropriation directly from the Duma, Russia's lower house of parliament. At present, the institutes are among 75 funded individually by the academy's presidium, or ruling body. But the academy has been struggling with drastic budget cuts. Carving out an independent confederation of the top biomedical institutes, Chazov believes, might improve the odds that the Duma would adequately fund the institutes.

Not surprisingly, the prospect of losing these crown jewels riles academy leaders. "The presidium has accused me of being unpatriotic," Chazov says. However, he claims, "the majority of scientists think this is the right idea."

Chazov pitched his idea last fall to Prime Minister Viktor Chernomyrdin, who is said to support it. Indeed, according to the administration official, the biggest barrier to the center's establishment is Yeltsin's wish not to offend the academy before the election. But the new center "could be the first major science policy initiative of 1997," says the official, if Yeltsin wins the election.

A Matter of Degrees

Faced with student angst about poor job prospects, national science policy-makers want to lay down the law—or at least offer it as a model for the opportunities awaiting newly trained researchers. "We need to think of the Ph.D. the same way we see a law degree," Bruce Alberts, president of the National Academy of Sciences, told the National Science Board last month in a typical comment. "Lots of people go to law school that don't intend to practice law."

But in fact, most lawyers do practice law, and do so at a higher rate than researchers do research. A 1994 survey by the American Bar Association, for example, shows that 89% of the working 770,000 law degree holders in the United States are pursuing their profession either in private practice, industry, or the courts. About 9% work in other parts of government, many of them in the Department of Justice, and only 2% fall outside these categories.

In contrast, the latest figures from the National Science Foundation on the country's 462,000 employed Ph.D. scientists and engineers show that 30% hold jobs outside science. Sliced another way, only 41% are engaged primarily in research and 22% in teaching. Some 18% perform management, sales, or administrative duties, 4% are in computer applications, and 15% do "other" things.

NSF officials aren't backing off their general argument. "The point still holds," says Deputy Director Anne Petersen. "We want faculty to take a broader view of the opportunities for their students." But she acknowledges that the legal analogy "may not be the right way to go."