

has recently been focused on potential cuts in the budget of the Department of Defense, either in 1982 or succeeding years. Most sources predict that the Pentagon research budget will remain intact, and that cuts will be made instead in manpower and in the quantity of new weapons that are purchased.

At least one Congressman, Representative William Dannemeyer (R-Calif.), wants any further cuts distributed instead over a range of non-defense programs, including several in the science area. A list that he is circulating on Capitol Hill includes a \$400 million reduction in the National Aeronautics and Space Administration budget, a curtailment of bilateral science exchanges with Eastern European nations, and the complete termination of the \$12.5-million congressional Office of Technology Assessment.

Budgets for the National Institute of Health, the Energy Department, and the Interior Department have yet to be approved by Congress, making them particularly vulnerable targets.

—R. Jeffrey Smith

NSA Seeks Research Proposals

On 24 August at a workshop in cryptography held at the University of California, Santa Barbara, a representative of the National Security Agency announced that the agency is actively seeking proposals for research grants. Larry Hatch of the NSA explained that the NSA wants to fund basic research in cryptography and computational mathematics. Investigators can expect their results to be unclassified and can expect to publish their work. But, Hatch warned, the NSA "reminds researchers to be concerned about the possibility of classification."

The NSA requests that researchers send it copies of their papers before submitting to journals. It requires that papers be sent to it at the same time as they are sent to journals. Its budget for this program is \$600,000 for the current fiscal year, \$1 million for next year, and \$1.2 million for the year after next. "It will take 10 years to

judge if this is a successful program," Hatch estimates.

So far, the NSA has received a number of oral inquiries about its grants and has been sent several research proposals. It recently awarded \$96,000 to a group headed by Martin Hellman and John T. Gill III of Stanford University and plans to fund another group of researchers in California as well.

Hatch explains that the NSA decided to start supporting cryptography research "in order to get good cryptography in the public sector. In general, it makes us aware at NSA of cryptography research that *might* be a problem. And, it's partly to help build good public relations."

A number of the investigators who heard Hatch speak seemed a bit hesitant about accepting the NSA's conditions. In particular, they questioned the requirement that they submit pre-publication copies of their work to the agency, fearing that their work might be classified. Hatch could only reply that the NSA does not expect to classify the basic research it funds. But, as a researcher in the back of the room murmured, "when you make a pact with the devil. . . ."

—Gina Bari Kolata

Nuclear War Worse Than Atomic Power, Say M.D.'s

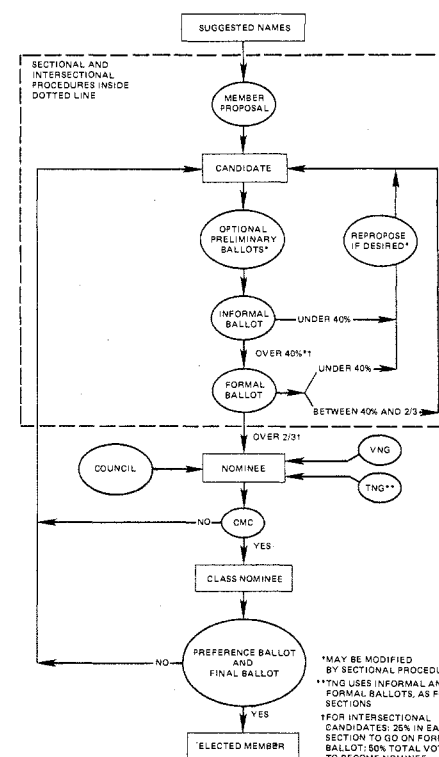
Seventy-one physicians who are members of the National Academy of Sciences have sent a letter to newspapers across the land urging nuclear arms reduction, and warning that "our civilization would perish in an atomic war." Unlike some antinuclear groups, the signatories take care to decouple the issue of nuclear war from nuclear power. "We stress that the possible health hazards of nuclear energy are negligible as compared with the medical consequences of thermonuclear war," says the letter.

The letter was prepared by Arno G. Motulsky and Paul B. Beeson of the University of Washington. In an accompanying statement they argue that public education on the realities of nuclear war may be "our best hope" in influencing policy-makers.

—Constance Holden

How to Become an Academy Member

FLOW CHART FOR NOMINATION AND ELECTION PROCESS



Groucho Marx's observation that he wouldn't want to belong to any club that would have him for a member went to the heart of the matter, that the essence of a club is exclusivity. This poses a problem for clubs that depend nominally on some inclusive principle, such as merit or whatever: just about anybody with a claim to the cited quality can join, as is the case with Mensa, the club for high IQ scorers. But inclusive clubs can acquire some of the cachet of the real variety by making the entry requirements sufficiently Byzantine that no one quite understands the election process. The flowchart above diagrams the electoral process of the National Academy of Sciences. The acronym VNG stands for "voluntary nominating group," an ad hoc cabal of 20 members who may support a particular candidate who might not get thrown up by the normal route. The Academy's ruling council may itself act as a VNG.

—Nicholas Wade