The program is expected to cost more than $2.85 billion between 1985 and 1990, and tens of billions of dollars before it is completed. Because the council members failed to exercise their authority, another report says, the Army was allowed to begin design and development of a new light helicopter on an accelerated schedule without a clear idea of its mission, adequate data on the Soviet threat, or a clear understanding of its total costs.

In addition, the Navy was able to devote 9 years to preliminary design of a new high-frequency communications network without a complete testing plan, an official estimate of the Soviet threat, and a "clear program definition," one inspector general's report concluded. The Air Force was able to accelerate development of a modified F-16 jet fighter for battlefield reconnaisance use, despite substantial evidence that an unmanned drone could perform the function better, at less cost.

Similarly, the Army was able to spend $164.7 million on research and development of a new mortar round without a realistic estimate of total costs and technical risks. And finally, the Air Force was able to begin advanced development of a jam-resistant battlefield communications system without a formal estimate of the Soviet threat, a test plan, or a source of funds for anticipated improvements, according to the inspector general's report. The program is expected to cost more than $3.5 billion before it is completed. All of these programs qualified for DSARC review.

"More often than not, we found that some portion of the required documentation was not prepared for the DSARC," explains Derek Vander Schaaf, the deputy Pentagon inspector general. "This is really a problem when you are talking about new [program] starts. You can get very committed to these programs . . . without necessarily making [an informed] decision. You keep the money going but higher management doesn't review the program in any depth and it keeps moving forward" to the next stage. If no test plan is prepared, the designers have no clear goals to meet, and the specifications eventually slip. When total costs are not estimated accurately, he adds, "you've got an underfunded program, [and] you start reducing production rates or stretching other programs to pay for it. Pretty soon a lot of things become more expensive, whereas you maybe should have made a decision to terminate" the program earlier.

One potential solution is that DSARC members delegate less procurement authority to the individual armed services. Commenting on the DIVAD case, Senator William Roth (R-Del.), the chairman of the Senate governmental affairs committee, says, "this report indicates that top Pentagon officials have delegated so much authority to lower levels that the decisionmakers often are unaware of problems in a system and may not fully utilize information to make important decisions. As many of these systems are developed . . . they take on a momentum of their own, like a giant snowball, which becomes almost impossible to slow down by the time the systems reach the Secretary of Defense for a 'buy/don't buy' decision."

John Smith, the DSARC executive secretary, says that detailed replies to the inspector general's comments will be prepared in coming weeks. In general, he says, "we will attempt to run the process more rigorously as a result of their recommendations. However, if we adhered to every rule without exception it would eliminate all flexibility. The important thing is to obtain the relevant information, and whether a document is timely or in the right form is sometimes unimportant."—**R. JEFFREY SMITH**

Troubles Plague Polish Physicists

Despite the release of most political prisoners in Poland last summer and the gradual thaw in U.S.–Polish relations, troubles persist within the Polish scientific community. To protest conditions at the Institute of Nuclear Problems in Swierk, the U.S. Committee of Concerned Scientists in December sent a sharply worded letter to the institute's director and other Polish officials, criticizing continued mistreatment of the institute's scientific staff and urging that those who were fired 2 years ago be reinstated.

The institute has been at the center of controversy since its start. It was formed on 1 January 1983, along with the Institute for Atomic Energy and the Institute of Nuclear Chemistry and Technology, when Polish officials "reorganized"—in fact, disbanded—the internationally respected Institute for Nuclear Research. Many Polish scientists regarded the reorganization as a thinly veiled effort to fire many of the now-defunct institute's scientific staff, abandon certain research projects, and revamp the administration so that it answered to the demands of the government rather than the needs of the staff. Those actions also stirred wide concern that Poland's capacity for high-level physics research was being severely damaged.

Many of the scientists fired shortly after the reorganization were never rehired and have been prevented from obtaining suitable jobs elsewhere, the letter says. "As a result, both the caliber of Polish science and international scientific cooperation have suffered."

In late 1982, 32 employees at the institute were fired outright after a demonstration against deteriorating conditions there. Most of them, on appeal, won their jobs back only to have that seeming victory snatched away when the reorganization plan was put in place. Many more institute employees lost their jobs in early 1983.

During this period, collaborative ties with research institutes in Western Europe and the United States also have been cut back considerably. Ties with the West were badly damaged in December 1981 when the Polish government established martial law, which was lifted on 22 July 1983. Although the general amnesty granted in July 1984 has started a slow formal process for reforming these ties, there has been little enthusiasm to restore programs to their premartial law status (*Science*, 24 August, p. 816).

Thus, despite a somewhat eased political climate, "Conditions are still very difficult for doing science," says a recent visitor to Poland. "The [nuclear institute] people who were fired or suspended still are not finding employment suited to their talents." For example, he says, one scientist who was associated with the institute for more than 20 years and helped build its linear proton accelerator, was fired 2 years ago, and he has been forced to work privately as an electronics technician.

The Committee of Concerned Scientists has lodged its protest with the institute's current director, the Polish Academy of Sciences, and government leaders, asking that the former employees either be rehired or that they be given suitable jobs elsewhere.—**JEFFREY L. FOX**