that "there is one reason for our current problems with readiness and sustainability: a lack of appropriate funding for the last ten years." He estimates that $17.6 billion for spare parts and munitions, plus some additional money for repair technicians, will resolve the Air Force's equipment troubles.

This view is shared, to some extent, by the Reagan Administration, which considers readiness to be the hottest topic in the ever-changing cycle of defense priorities. Reagan intends to buy the same weapons and supporting equipment that former President Carter did, but more quickly and in far greater quantities. Officials say that having more equipment around will make the failure of individual items less worrisome; technicians can, among other things, more easily cannibalize spare parts from working units, a common practice among crews tending the F-15. And the costs of specific weapons may decline as a result of accelerated production schedules, even if the total cost of each system is much higher. Under the Carter budget, for example, the Navy was to build two EA6B radar-jamming aircraft at a cost of $60 million apiece. Reagan plans to build six, and the resultant production economies dropped the individual cost to less than $30 million. In this manner has the initial battle against expensive, unreliable weaponry been joined.

Increasingly, experts believe that more systematic changes in the defense procurement system may be necessary. One view holds that weapons are just too complex, and that the only solution is to strive for greater simplicity. The most cogent statement of this view has emerged from within the Defense Department, of all places. Franklin Spinney, a DOD program analyst and former Air Force engineer, recently told a Senate subcommittee that the military's pursuit of technological sophistication at any cost has caused it to ignore human contributions that account for numerous weapons failures. In a report that prompts criticism from other Pentagon officials, Spinney writes that "our bias toward short-term investments in weapons of increasing complexity is the cause of our long-term cost growth."

Pentagon planners are repeatedly seduced by the notion that "advancing technology will . . . provide revolutionary increases in capability," Spinney says. Actual combat experience is disappointing, either because capabilities are exaggerated during a weapon's design or because the advantage offered by new technology proves to be slight. This was

(Continued on page 312)

Identifying the Dangerous Individual

If the Secret Service had interviewed John Hinckley before his alleged attempt to assassinate President Reagan, would he have been identified as potentially dangerous?

Even before the latest assassination attempt, the agency was worried about its methods for identifying people who pose a danger to its "protectees." Last September the Secret Service asked the Institute of Medicine (IOM) to review the literature on violence-prone individuals and come up with some recommendations to improve its screening system. The committee of lawyers and behavioral scientists, headed by Walter Menninger of the Menninger Clinic, held a 2-day workshop in early March. Its report is due in July.

The committee has a difficult task, because it is well known that the best—and perhaps only—predictor of violence on the part of an individual is past acts of violence. Asked what sort of research might yield other indicators, committee member Elissa Benedek of the University of Michigan suggested that "we can begin to look at particular diagnostic categories of mental illness where there is more likelihood" of dangerous behavior. But she emphasized that this might result in only marginal gains in understanding since the vast majority of mentally ill persons are not dangerous.

Secret Service spokesmen told *Science* their organization used to be guided by an assassin's profile of sorts, which was a composite of Bremer and Oswald types—that is, the lone, maladjusted young male. But then Squeaky Fromme and Sara Jane Moore, the two women who tried to shoot President Ford, blew that away. The agency keeps a list of about 350 individuals who are regarded as definitely dangerous, and whose whereabouts it likes to know—an easy task because the vast majority are institutionalized. The primary way suspicious characters are identified is through threatening letters to the protectees. Every time the Service hears about such threats, voiced or written, they track down the perpetrator for an interview. If an individual seems unbalanced, he is asked to undergo a psychiatric evaluation. Current procedures, however, appear to be inadequate. Secret Service spokesman Jim Boyle suggests that there "may be some way that therapy can be arranged" for violent loners who write threatening letters to the President.

IOM committee member Saleem Shah, who heads the National Institute of Mental Health's Center for the Study of Crime and Delinquency, says that the base rate of political assassinations is so low that experts can never expect to achieve success in predicting likely assassins. Officials have little more to go on than they did in 1969, when the National Commission on the Causes and Prevention of Violence came up with the following list of attributes of presidential assassins and would-be assassins: male, white, foreign-born or with foreign-born parents, slight of stature, loners who can't hold a job or maintain a relationship. Typically, they come from broken homes with absent or unresponsive fathers, zealously adhere to some cause, use a handgun for the murder attempt, and select a moment when the President is appearing before a crowd, thus making their act very public and virtually assuring their own apprehension. That Hinckley fits some of these categories and was still able to do what he did, emphasizes the difficulty of the Secret Service's task.—***Constance Holden***

FDA, NHTSA Appointments

The Reagan Administration has made several recent appointments of interest to the scientific and medical community.

Arthur Hayes, Jr., a physician and expert in the therapeutic uses of drugs, has been nominated as director of the Food and Drug Administration (FDA). Hayes, 47, currently teaches at the Pennsylvania State University Hershey Medical Center, where he specializes in research on drugs to treat hypertension. He is the immediate past president of the American Society for Clinical Pharmacology and Therapeutics.

Hayes's background seems well suited to the tasks he will confront. He has a masters degree in politics, philosophy, and economics, earned at

0036-8075/81/0417-0310$00.50/0