

## DOD Announces Weapons Buying Reforms

The Reagan Administration, seeking to strengthen congressional support for a tremendous increase in weapons buying, has promised some reforms to lower the weapons costs and increase their reliability. The reforms, developed by a group of Pentagon officials under the direction of Deputy Secretary of Defense Frank Carlucci, are intended to blunt



**Frank Carlucci**

*Weapons need to be simplified*

charges that the U.S. arsenal has been filled with highly sophisticated weapons that prove unworkable in the field and cost more than they should (*Science*, 17 April, p. 309).

In a professed reversal of basic Defense Department strategy, Carlucci's group directed that weapons designers should forswear state-of-the-art technology in favor of more cautious and less expensive incremental arms improvements. Weapons programs are to be designed at the start to accommodate planned evolutionary changes, limiting the need for complete redesigns or entirely new inventions. State-of-the-art technology is to be used only "when the demands of the threat or other military needs require such an approach." Carlucci recently told the House Armed Services Committee that the Pentagon was genuinely committed to reducing the complexity of major

weapons. "This was agreed upon by the general managers in DOD. They saw this as a problem." But specific details of the reform are still being prepared by Richard DeLauer, the undersecretary of defense for research, engineering, and acquisitions.

Carlucci's group also instructed procurement officers to increase monetary incentives for weapons reliability. More realistic estimates of cost are to be prepared, including more accurate estimates of inflation, monetary cushions for technological risk, and increased funds for test equipment. Overall procurement decision-making is to be decentralized, with fewer high-level reviews and directives before weapons systems are approved. Carlucci says that excessive management-imposed requirements add 8 percent to the cost of every weapon.

The selection of a contractor from among competing bids is to be based less on price and more on the credibility and previous records of the firms involved—a reform that could have the unintended consequence of limiting competition. Carlucci's group has also directed that Pentagon planners reduce the frequency of revisions in weapons contracts after they are signed. Fewer changes will be permitted in weapons quantities and production deadlines.

Also, in an effort to strengthen the military industrial base, the Pentagon has agreed to support tax breaks sought by its contractors, as well as increased freedom from federal social and environmental regulations. Details on these reforms are to be produced in July.

Finally, the Pentagon will support congressional legislation that would permit more weapons purchases with economical multiyear contracts. Congress has traditionally been reluctant to permit such contracts on the grounds that it would limit its weapons-buying oversight. But the Administration's enthusiasm for cost-cutting appears to have overwhelmed this fear, at least temporarily.

Many of the proposals are noteworthy for what they leave out as well as what they include. No provision is made for giving the multiyear contracts to small firms, where some critics believe they would be most helpful in strengthening the military-industrial base. The Pentagon has also decided

not to contract with two firms to build the same weapon at the same time, despite some claims from within the military community that competitive production would increase productivity and quality.—**R. Jeffrey Smith**

## Low-Fat Diet Poses Little or No Cancer Risk

Growing evidence of a relation between extremely low serum cholesterol and a heightened risk of colon cancer has recently disquieted public health officials. They worry that undue public apprehension could arrest the apparently successful campaign to reduce coronary heart disease by persuading those with high cholesterol levels to limit their dietary intake of fats (*Science*, 27 March, p. 1410). It was thus with considerable relief that a group of scientists concluded on 12 May, in a meeting at the National Institutes of Health, that reducing cholesterol clearly poses no risk for most of the population.

A series of epidemiological studies reviewed at the meeting suggests that only a small segment of the public at the low end of the serum cholesterol spectrum needs to be concerned by further reductions. And even this concern may be unwarranted, for many of the experts suggested that low serum cholesterol is not a cause of colon cancer but merely its statistical corollary. If their hypothesis proves correct, low levels would indicate only a predisposition to cancer caused in some other manner—a circumstance that might actually aid in early detection.

Robert Levy, director of the National Heart, Lung, and Blood Institute, and the meeting's chairman, cautions that a firm understanding of the cancer-cholesterol connection will require years of additional research. But data already in hand are sufficient to show that 5 to 10 percent of males in the United States with the lowest serum cholesterol—less than 180 milligrams—are at some increased risk. Inexplicably, none of the studies showed a similar effect for females—an anomaly that detracts from the notion that low cholesterol can cause cancer. Still, the experts suggest a

conservative approach because no useful studies of the impact of lowering serum cholesterol through diet are available. Brian McMahon, an epidemiologist at Harvard University, expressed the consensus of the group in saying that individuals who already have low serum cholesterol levels should be counseled against further reductions with a low-fat diet.

Most health officials counsel reductions to about 200 milligrams, reasoning that most coronary heart disease risk is eliminated at that concentration. But a minority has urged an even lower target, arguing that cholesterol levels are much lower in countries such as Japan, where coronary disease is much less common. "The Japanese data have been thrown at us for years," Levy said. "But there will be less opposition now to recommending 200 milligrams instead of 150 milligrams."—**R. Jeffrey Smith**

## Koop Nomination Jeopardized

If C. Everett Koop is not confirmed as U.S. Surgeon General within the next month or so, his name might be withdrawn and a new candidate selected for the post, according to Secretary of Health and Human Services Richard Schweiker. Schweiker made the remark at a reporters' breakfast.

Koop's Senate confirmation hearing has been stalled because the House has not yet passed a waiver that would allow the 65-year-old Philadelphia pediatric surgeon to take office. The law currently limits the surgeon general's age to 64. Koop's outspoken stance against abortion, homosexuality, and women's rights has stirred up considerable controversy on Capitol Hill. His lack of experience in public health has also been challenged (*Science*, 24 April, p. 422).

According to an aide to Assistant Secretary of Health Edward Brandt, no one else has been considered for surgeon general. Even if Koop is not confirmed, he could still be retained in his current post as deputy assistant secretary of health, which is a political appointment and carries fewer responsibilities.—**Marjorie Sun**

## Columbia Looks Good, Second Launch Announced

NASA last week announced a target date of 30 September 1981 for the second launch of the space shuttle Columbia. The flight was originally scheduled for 18 October, but engineers evaluating Columbia at the Kennedy Spaceflight Center have found so few problems overall that they have dropped several previously



planned tests. Most of the "anomalous conditions" are very minor, they say. Some that are more significant:

- One thermal protection tile that came off completely and about a dozen that lost pieces. In addition there were 303 nicks and gouges in the tiles. The probable causes were frost, ice, and perhaps insulation falling from the external tank during launch. At least 100 tiles will have to be replaced.

- Some very localized damage to the aluminum skin of the orbiter, corresponding to areas where tiles were

damaged and reentry heat seeped through. The damage can easily be repaired, say the engineers. Moreover, in many parts of the orbiter, temperatures were lower than expected.

- A malfunctioning Development Flight Instrumentation recorder, which turned out to have a loose washer in the mechanism. Much of the aerodynamic data was lost during reentry; however, information on turbulent air flow, a crucial measure of the smoothness of the orbiter's tiled surface, has been recovered from data transmitted to the ground after Columbia emerged from blackout.

- Failure of one of the three auxiliary power units shortly before reentry. These units power the hydraulic system, which in turn controls the elevons, rudder, flaps, landing gear, and the steering of the main engines. Two units are required for reentry; all three for launch. The cause of the failure is still undetermined.

- Failure of the zero-gravity toilet. It has been returned to the factory.

—**M. Mitchell Waldrop**

## White House Nominates New Science Adviser

The White House has named George A. Keyworth as science adviser to the President and director of the Office of Science and Technology Policy. Keyworth emerged as a candidate for the post only recently (see *Science*, 22 May).

A 41-year old physicist from the Los Alamos Scientific Laboratory, Keyworth's selection for the government's top science policy post represents a sharp break with tradition. Previous science advisers have mostly been drawn from the scientific establishment. Keyworth is not widely known outside his field.

Keyworth's nomination has been strongly supported by Harold Agnew, Edward Teller, and others. He has also been warmly endorsed by Senator Harrison Schmitt (R-N.M.), chairman of the Senate science and space subcommittee. The nomination is subject to Senate confirmation.

—**Collin Norman**