

## Fletcher Promises Rebirth of Shuttle Program

The top priority of James C. Fletcher, the Reagan Administration's choice for administrator of the National Aeronautics and Space Administration (NASA), will be to restore the "confidence, purpose, and momentum" of the shuttle program, he said on 23 April. Appearing at a hearing of the Senate subcommittee on science, technology, and space, Fletcher called for "a recommitment to the vision of American leadership in space."

Fletcher, who was introduced by two enthusiastic senator-astronauts, John Glenn (D-OH) and Jake Garn (R-UT), appeared headed for swift confirmation by the committee on 30 April after *Science* went to press. He received only a few sharp questions at the hearing about his previous stint as NASA administrator from 1971 to 1977, when he promoted the shuttle as a cheap and efficient means of gaining routine access to space.

Fletcher, 66, acknowledged that his estimates of shuttle costs were too low, and that its performance had apparently fallen short of expectations. But he declined to provide any detailed explanation of the discrepancies, other than to say that "something happened on the way to the bank," that "even now, the shuttle is still on the learning curve," and that "[only] time will tell" if he was really wrong.

Fletcher also said that he did not remember allegations by the General Accounting Office of mismanagement and agency deception during his previous tenure, recounted on 23 April by the *New York Times*. "I am not sure they are talking about the same agency that I used to be administrator of," he said. "I am still under the impression that NASA is one of the best agencies of the federal government."

Although Senators Albert Gore (D-TN) and Donald Riegle (D-MI) expressed some concern about this record, the prevailing sentiment at the hearing was clearly that NASA has been without an administrator for too long, and that only Fletcher could successfully resuscitate the flagging morale of its beleaguered employees. (Fletcher will replace James Beggs, who resigned last January after being indicted for allegedly mishandling federal contracts while he was at the General Dynamics Corporation.)

On most substantive issues, Fletcher chose to punt, explaining that he needed to look into matters more closely once the confirmation was behind him. Thus, he declined to comment on the need for per-

sonnel changes and bureaucratic restructuring, and on the appropriate mix of future launch vehicles. He did endorse the construction of a new orbiter to replace the Challenger, destroyed in an accident on 28 January. And he also indicated in a written statement that the agency would "attempt to maintain a vigorous level of activity" in space science, although it would probably be unable to initiate any new programs for some time.

Fletcher's work at the agency will be complicated by his recent ties to corporations that serve as major NASA contractors. In particular, he has been a director of Fairchild Industries, the Burroughs Corporation, Amoco Corporation, and Comarco,



**James Fletcher** predicts no new science programs at NASA for some time.

Inc., as well as an employee of Aerojet General and a consultant to LTV, Inc. Perhaps more important, he has been a director of Astrotech International and a vice chairman of its subsidiary, the General Space Corporation, which have been lobbying aggressively for the right to finance a new shuttle orbiter and then lease it back to the agency at a profit.

Fletcher, who is a multimillionaire, told the Senate subcommittee that he would resign the directorships, sell much of his extensive stock holdings, and excuse himself from decision-making on "matters pertaining" to the companies, including Astrotech and General Space. But it remained unclear at the close of the hearing how he could divorce himself from such a fundamental matter as the financing of a new shuttle orbiter, and still effectively direct the rebirth of the space program. ■

**R. JEFFREY SMITH**

## White House Group Recommends a New Shuttle Orbiter

After months of tense negotiation, a White House interagency council has agreed to recommend to the President that the National Aeronautics and Space Administration (NASA) be allowed to build a replacement for the space shuttle Challenger, which was destroyed in an explosion on 28 January. However, no agreement was forthcoming on how to pay for it.

The Senior Interagency Group on Space (SIG-Space), which reports to the National Security Council, consists of representatives from NASA, the Office of Management and Budget (OMB), the departments of Commerce, Defense, and Transportation, and several other agencies involved in space affairs. As a purely advisory body it has no formal power; however, as the only forum in which all the interested parties can have their say, it has effectively been delegated the task of deciding on the Administration's response to the Challenger disaster.

The group's decision to recommend building a new shuttle orbiter is thus a victory for NASA, which has lobbied hard for it. However, the agency has had less success with its contention that the \$2.4-billion cost of the orbiter should be paid for with new money in addition to existing budgets. While no final decision has been reached, a number of representatives have insisted that the funds must come out of savings in other programs. An ad hoc subpanel headed by the OMB has been formed to look into financial options.

At the same meeting, SIG-Space also agreed to split off the contentious question of the shuttle's commercial payloads and send it to a separate body, the Commercial Space Working Group, which reports to the Economic Policy Council. NASA would prefer to continue flying at least those commercial satellites it has already committed to. The Transportation department wants to move as many of those payloads as possible onto conventional rockets in order to promote a private launch vehicle industry. Defense department officials support that move: otherwise, when the shuttles start flying again, their growing backlog of national security payloads will force them into the politically embarrassing act of bumping some commercial satellites.

The indications are that no final decisions on space policy will be made by President Reagan until after the Tokyo Economic Summit in May—if then. Meanwhile, the Congressional space committees are getting impatient with all the bickering and delay.

The House space science subcommittee, chaired by Representative Bill Nelson (D-FL), has added legislation to its fiscal year 1987 authorization bill that would replace SIG-Space with a permanent National Aeronautics and Space Council to be headed by the Vice President. The problem with SIG-Space is that it is subordinated to the National Security Council and operates in secret, say subcommittee staffers. Moreover, it only comes together when there is a policy crisis, which means that the turf lines are already drawn. A permanent body less dominated by the national security agencies might get around those problems, they say. On the other hand, it is not at all clear that anyone at the White House really wants that kind of help. ■ **M. MITCHELL WALDROP**

## France Cuts Research to Fund New Jobs

Paris

The new conservative French government headed by Prime Minister Jacques Chirac has announced that it plans to cut public spending on civilian research and development by 8% in 1986 compared to the level that had been proposed by the previous socialist administration.

However, according to the new minister for research, Alain Devaquet, science remains an important priority for the new government. In particular, Devaquet has promised not to dismantle either the National Center for Scientific Research (CNRS) or the National Institute for Health and Medical Research (INSERM)—two of the nation's main research funding agencies—as had been demanded by some of the government's supporters (*Science*, 7 March, p. 1061).

The cuts in the research budget formed part of a reshuffle in public spending plans that included increased efforts to create jobs for young people, and substantial extra grants for farmers and loss-making automobile and steel producers. The money taken from the planned research spending totals \$460 million and covers almost one-third of these new commitments.

Substantial losers will be the CNRS, INSERM, and the Atomic Energy Commission (CEA), which will lose \$134 million, \$39.5 million, and \$33 million, respectively. There will also be significant reductions in the funds allocated to both industrial and agricultural research.

Speaking at a press conference in Paris last week, Devaquet said that although he regretted the cuts, he hoped to be able to put

research funding on a more stable basis than in the past few years, when alternating periods of expansion and contraction had created a "concertina effect."

Science no longer has its own ministry under the new administration, since Devaquet—formerly a personal adviser to Prime Minister Chirac—has, at his own suggestion, accepted that his responsibilities be linked with higher education rather than technology, and his position is therefore that of a junior minister in the Ministry of National Education.

However, he has also successfully argued that his responsibilities should not be limited to the CNRS and universities, but should include the research activities of other agencies, such as the National Center for Space Studies (CNES) and the CEA. Officials in Paris say that this will retain one of the main innovations of the previous government, a single budget for research allowing direct comparison of different priorities. ■

DAVID DICKSON

## Johnston Drops Opposition to CEBAF

Senator Bennett Johnston (D-LA), a longtime critic of the way the proposed Continuous Electron Beam Accelerator Facility (CEBAF) has evolved, says he will now support constructing the \$200-million machine. Only last February, Johnston warned Energy Secretary John Herrington that the accelerator, which is scheduled to be built in Newport News, Virginia, might have to wait another year or more for funding. Johnston indicated then that he would withhold his support for CEBAF because he was upset by an Administration proposal to cut river navigation and Strategic Petroleum Reserve projects in Louisiana.

"I am interested in getting it done," says Johnston, who now says he is satisfied that the technology problems related to the project have been resolved. As the ranking minority member on the Senate appropriations subcommittee on energy and water development, Johnston has exercised strong influence over committee actions in the areas of nuclear and high-energy physics. He has been critical of the management of the project by Southeastern Universities Research Association (SURA), arguing that the initial design failed to employ the latest technology.

In particular, Johnston has been concerned about the original choice of a pulse stretch ring to produce a continuous elec-



**Bennett Johnston** "I am interested in getting it done."

tron stream from high-power klystron tubes. The performance of the 0.5- to 4-billion-electron-volt (GeV) accelerator could degrade under circumstances where the klystrons were stressed. The original design was dumped in August 1985 in favor of using a linear accelerator, superconducting cavities, and low-power klystron tubes to produce a continuous electron beam.

Created in 1980, SURA is comprised of 35 universities and colleges. It was chosen as the prime contractor by the Department of Energy (DOE) in 1983 after competing with Argonne National Laboratory and three other contenders. DOE made the selection after the Nuclear Science Advisory Committee (NSAC) in April 1983 endorsed the SURA design. Although the panel expressed concern about SURA's lack of experience in constructing and running a major facility, NSAC backed the plan because it (i) promised to create 35 faculty positions; (ii) allowed for accelerator enhancement to 6 GeV; and (iii) ironically, was seen as less risky than the Argonne design.

In the past 2 years, Johnston has been keeping a close eye on the accelerator's management and has ordered several General Accounting Office reports on the project's status. The latest GAO report faults the department for not issuing its own technical proposal as a basis for judging proposals of contractors. Had DOE done so, says GAO, SURA's initial design for the accelerator might not have been based on technology that was less than state of the art. Johnston credits Hermann Grunder, who took charge of the project in June 1985, with restoring confidence in the project. ■

MARK CRAWFORD