troducing Science Adviser Press, for example, that Department of Defense Secretary Harold Brown "is well qualified in physics and I particularly wanted someone to help me who had a broader scope of understanding.

"And as you know, Dr. Frank Press is an expert on earth sciences. He is one of those who has been able to form a close working relationship with the scientific community in the Soviet Union. He has been widely respected throughout the world for his work in seismographic determinations and did the basic planning for the method that we [use] to monitor compliance with nuclear explosives set off beneath the earth's surface.

"In the few weeks that Frank Press has been here in the White House working with me, I have really been favorably impressed and gratified at the broad range of his understanding on scientific matters. . . .

"He attends Cabinet meetings. He attends the senior staff meetings. And whether it might be new weapons systems, scientific aspects of the SALT negotiations, problems with defense experimentations that might lead to new opportunities there, or whether it involves problems with weather determination or in many instances problems involving social sciences, he has been very helpful in helping me make the right decisions."

With most of the principal posts filled on the science side of the Administration, the next question is how the impending reorganization of government will affect the offices and officeholders. A team headed by Atlanta banker A. D. Frazier has been working since the Inauguration on a reorganization of the Executive Office of the President (EOP), which includes OSTP, ODAP, and the Office of Management and Budget among its dozen offices.

The target date for completion of the work was around 1 June, but the timing has slipped a week or so. Recommendations are expected to be sent to Carter imminently. The plan will be amended according to the President's reactions and then converted into a legislative package to be sent to Congress for action, probably by the end of June.

Earlier reports indicated that consideration was being given to melding OSTP into a new structure in the EOP (*Science*, 13 May) with a consequent loss of separate identity. The betting now is that OSTP will survive the reorganization without any sort of merger that would submerge it.

—JOHN WALSH

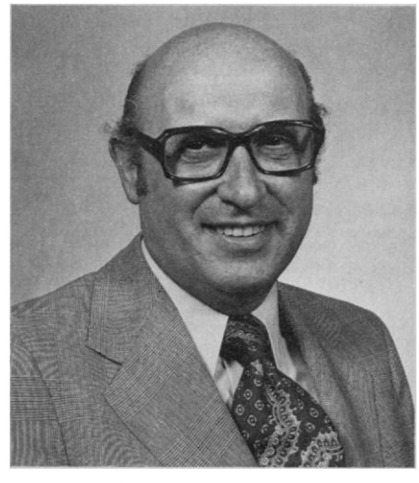
Space Chief Nominee Stresses Need for "Good Science"

Most administrators of the National Aeronautics and Space Administration, especially when they take office, find themselves between a rock and a hard place. If they talk too much about NASA's undertaking major engineering feats, such as the manned lunar landing or the space shuttle, the scientists who depend on NASA for research support get nervous about being shortchanged. But if the new administrator talks too much about the importance of science, friends of the agency yearning for yet another space spectacular will criticize him for being too timid.

Robert A. Frosch, former Assistant Secretary of the Navy for Research and Development, and former assistant executive director of the United Nations Environment Program, and former Woods Hole associate director, is about to be confirmed as NASA's fifth administrator. Frosch, who at age 28 became director of Columbia University's Hudson Laboratories, probably has more experience in research administration than any of his NASA predecessors, and, in his initial public statements anyway, he seems to be stressing science.

"I'd like to be remembered as the guy who was able to help NASA imagine new uses for space and aeronautics and who helped the agency do good science," Frosch told *Science* in an interview prior to his confirmation hearings before the Senate on 6 June. He said that he sees NASA—which, since the 1969 manned lunar landing, has been called an agency in search of a mission—as primarily "a research and technology agency."

This is music to the ears of research-



Dr. Robert A. Frosch

ers, but it may be hard to implement. Congress is becoming more skeptical of the space agency and the Administration is still uncommitted on the space agency's future.

"I don't think we'll have a single major goal like going to the moon in the next few years," says Frosch. "Of central importance to NASA will be the whole, changing understanding of the earth that is developing with the assistance of space, in terms of land use, agriculture, the oceans, and the interest in the effect of climatic change on the food supply."

Frosch thinks there will be less of the traditional competition between science and engineering in the agency during his prospective tenure, partly because, as luck would have it, funds for the space shuttle will reach a peak in fiscal 1978 and taper off afterward. The space shuttle is the agency's major technology program, which, in 1978, will gobble up $1.5 billion, or nearly half of the agency's budget. Frosch also notes that as it becomes operational the shuttle will offer many opportunities for scientists, such as when it launches the large space telescope (LST), a major new astronomy initiative, in 1983.

But Frosch also has an eye on the engineering and applications aspects of NASA's programs. He claims that his background is, in fact, as much engineering as science. (A theoretical physicist by training, Frosch went from the Hudson Laboratories to the Advanced Research Projects Agency to cover nuclear test detection, and then moved to the Navy.) He says he would like to see

Physics in Argentina

Four scientific societies pooled resources to bring an Argentine physicist to Washington last month.

The physicist, Maximo Pedro Victoria, described a nightmare of torture and imprisonment which began when he was arrested one day at his office and ended 7 months later without any reason being given or any charges being made against him.

Released on 11 October last year, Victoria left with his family for Belgium, where he is senior research adviser at the Belgian Institute of Welding in Ghent.

Victoria was invited to Washington by the Committee on Scientific Freedom and Responsibility of the AAAS, which arranged for him to give testimony to the Inter-American Commission on Human Rights of the Organization of American States.

In an unusual cooperative venture, the cost of Victoria's trip was shared between the AAAS, the National Academy of Sciences, the American Physical Society, and the Federation of American Scientists. His testimony to the OAS commission was part of an effort by the AAAS committee to interest the OAS commission in investigating reported human rights violations in Argentina, in particular those of 11 scientists who have disappeared or been arrested.

Victoria's story is a chillingly Kafkaesque account of an individual at the mercy of unreasoning forces. Before his arrest he was the director of the National Institute of Industrial Technology in Buenos Aires. Asked to resign after the military coup in March last year, he returned to the Atomic Energy Commission where he used to work. There, on 1 April, he was told that he was under arrest, but no reason was given. He was taken at gunpoint through the entrance hall to a police car, where he was blindfolded and taken to a prison boat.

In the boat he was constantly harassed by his guardians, who came to knock and kick at the cabin door at all times of day, while shouting that he was next in line to be shot or thrown into the sea.

After 2 weeks Victoria was transferred to another prison boat, where he was constantly hooded, chained to his bedposts so that he had to remain in a rigidly seated position, and given no food or water. Hearing the names of other prisoners being called, he realized that nine other members of the Atomic Energy Commission were undergoing the same experience.

After 2 days of interrogation about his political and religious beliefs, he was taken to Devoto prison. Though he was not tortured, some of his fellow prisoners were. In September he and others were transferred to another prison, Sierra Chica. During the flight they were beaten, walked over by guards, and forced to shout "Long live the military." On arrival they were stripped naked and forced through a double file of guards for another beating, apparently a standard procedure for new arrivals. Conditions at Sierra Chica were even harsher than at Devoto. Some of the thousand or so political prisoners were entire families who had been detained because the arresting agents had failed to find the person they sought and took everyone else in the house instead. At least two prisoners, Victoria reports, were psychologically disturbed as a result of torture, and one had lost the use of an arm because of electric shocks; none had received medical attention.

On 11 October, Victoria was released. Having been informed that his life and that of his family would be in danger, he left Argentina the same day.

At a press conference in Washington last week he said that neither he nor the other Atomic Energy Commission scientists in prison with him were ever officially accused or told the reasons for their detention. His only involvement in politics, Victoria declared, was when, as director of the National Institute of Industrial Technology, he had had to make policy and political decisions. Of the thousand or so scientists and technicians at the Atomic Energy Commission, about 150 have already left the country, and the whole reprocessing group has disappeared. Why should the government wish to destroy an important national resource, especially one with military potential? "Very few of them have any feeling for what this technology means to our country," Victoria replies.—N.W.

more attention paid, for example, to NASA's $175 million aeronautics program. Aeronautics is less glamorous than space shuttles or moon landings—but nonetheless can make real contributions to commercial air engine technology and to the development of vertical short takeoff and landing craft (VSTOL). Frosch says that he plans to work closely with his alma mater, the Navy, on VSTOL because of the Navy's plans to emphasize smaller aircraft carriers that could have STOL and VSTOL planes aboard.

Similarly, Frosch sounds excited by the potential of the space shuttle for putting large structures in space, such as orbiting solar power stations, or new, larger antennas for people-to-people communications in less-populated areas or for better earthquake monitoring.

An irony of Frosch's interest in NASA as a research agency, however, is that he takes office at a time when one of the agency's major science initiatives, the Jupiter Orbiter Probe (JOP), is in serious jeopardy. On 3 May, a House Appropriations Committee subcommittee, chaired by Edward Boland (D–Mass.), suddenly killed the appropriation request for $20.7 million to start the probe, which is designed to give high resolution pictures of Jupiter and four of its moons and send a probe into Jupiter's atmosphere in the early 1980's. It is regarded by most NASA scientists as the logical next step in interplanetary exploration.

Apparently, the Boland committee action was not an expression of enmity toward the planet Jupiter, but was in exchange for approving a $36 million request for the LST which will also be initiated in fiscal year 1978 but which was the subject of a critical General Accounting Office report earlier in the year. The Jupiter probe is the principal activity of scientists of the Jet Propulsion Laboratory (JPL) in Pasadena, California. The cut took both JPL and NASA headquarters completely by surprise.

Frosch has already given scientists at JPL assurances that he seeks a strong future planetary program, and will do his best, if confirmed before the Senate takes action on the NASA appropriation, to get the money restored. But he may have problems achieving this. Prior to the Senate reorganization of this year, NASA enjoyed smooth sailing in the Senate, largely because two friendly Senators, the chairman and ranking minority member of NASA's authorizing committee, also sat on the appropriations committee as ex officio members. But that arrangement has ended now; the old authorizing committee has been dismantled; and NASA authorizations are

in the hands of a commerce committee subcommittee, headed by Adlai Stevenson (D–Ill.). The Stevenson subcommittee already authorized JOP and LST funding earlier this year, but whether it can muscle the appropriations subcommittee that oversees NASA into doing likewise, remains to be seen. The appropriations subcommittee, headed by William Proxmire (D–Wisc.), which has different members this year, may not necessarily sympathize with the cries of planetary researchers.

Frosch faces a more complex challenge with the Carter Administration that appointed him. Aside from his job interview with the President, in which the ex-naval engineer asked the ex-naval research administrator a lot of questions ("He sure gives a tough job interview" says Frosch), the incoming NASA administrator has not been dealing with the President or his immediate staff. And while he has dealt with the newly reestablished office of the Science Adviser, which, under the leadership of Frank Press will probably be sympathetic to NASA and planetary science generally, the overall Administration attitude towards the space agency is a big unknown.

To add to the uncertainty, rumors have been circulating around Washington that NASA will be rolled into the Commerce Department or the Defense Department. But a spokesman for Harrison Wellford, Carter's government reorganization chief, denies that those rumors have any basis—at present. Says the spokesman, "NASA is not on our docket at this point. But then we're not going to eliminate anything either." So, while Frosch may preside over the strengthening of science at NASA, he could also preside over the "streamlining" of the agency into some new, perhaps unrecognizable, form.

—DEBORAH SHAPLEY

Water Projects Dispute: Carter and Congress Near a Showdown

The confrontation between President Jimmy Carter and Congress over the water projects "pork barrel" is now approaching high noon. Either the President must soon back away from his demands that Congress terminate or drastically modify nearly a score of ongoing projects as a start toward sweeping reforms in water resource development policies, or the Congress must do his bidding, at least with respect to the worst projects on the White House "hit list." Some political commentators have regarded the President's crusade as a Quixotic tilting at windmills that will gain him nothing except the ill will of powerful senators and representatives who can make trouble for the rest of his legislative program. But there is reason to think that the President can in fact prevail, or certainly gain substantial concessions, if he is as willing as he seems to veto the public works appropriations bill that the Congress will be sending him.

As recently reported by the House Committee on Appropriations for floor action on 13 June, the bill reflects what appears to be almost a contemptuous disregard for the President's ideas about reform of water resources policy.

Only one of the projects which Carter wanted terminated—the economically submarginal Grove Lake flood control project in Kansas which has lacked firm support even from the member of Congress in whose district it was to have been built—was omitted from this measure. Planning money for some controversial and admittedly nonessential dams associated with the Central Arizona Project was deleted, and certain conditions were imposed on several other projects—most notably, the committee sensibly decided that further funding of the Auburn Dam project should await the outcome of a study to determine whether an active earthquake fault underlies the dam site. (Should this 700-foot-high dam be built and then fail as the result of an earthquake, a 30- to 40-foot wall of water would come crashing down upon Sacramento.) Apart from these concessions, the committee appears to have gone out of its way to let Carter know that it intends to continue doing pretty much as it pleases.

Besides refusing to stop further spending on the 15 projects the President wants terminated altogether and on several others he wants redesigned, the committee put money in the bill for a dozen entirely new projects that had not been included in the Administration budget. Furthermore, it indicated that, in the future, funds might even be provided to allow work to be restarted on the Cross Florida Barge Canal, a project which President Nixon stopped in 1971. Both the state of Florida and the Carter Administration have called on Congress to bury this half-dead project for good by rescinding the 1942 act by which it was authorized.

Almost alone among his colleagues on the Appropriations Committee, Representative Silvio O. Conte, a Republican from the Berkshire region of Massachusetts, is taking President Carter's side in the water projects dispute and he will offer one or more amendments to bring the bill more in line with the President's wishes. So strong is the tradition among House members of looking out for one another (and collecting IOU's from one another) in matters of this kind, Conte may at best succeed in knocking out a few of the more controversial or questionable projects, and even that is perhaps unlikely. But if, as expected, he gains the support of at least a third of the House members present, this will serve notice on the Congress that a presidential veto of the bill could probably be sustained.

Two of the heavies on the Appropriations Committee, Representative George H. Mahon (D–Tex.), the chairman, and Representative Tom Berill (D–Ala.), head of the public works subcommittee, have shrewdly attempted to undercut the President's effort to justify the hit list partly in the name of fiscal responsibility. They had the committee make a 3 percent blanket cut in funding affecting all items in the public works bill, thus achieving a reduction greater than the cut of a few hundred million dollars that was contemplated in the Administration's fiscal 1978 budget request (although doing nothing to save the nearly $4 billion which completing all of the projects in dispute would ultimately cost).

But everybody in Congress knows what really is at issue in the public works money bill. It is the long-standing congressional practice of logrolling, of mutual back scratching and accommodation, of putting good, bad, and mediocre projects into one big bill, then resolutely fending off those who would tear the bill