

tion of New York, which gives \$13 million in annual grants to individuals and organizations for contributions to nuclear nonproliferation and to improving East-West relations. In the 1980s she directed the Secure Society Program for the W. Alton Jones Foundation and served as national executive director of Physicians for Social Responsibility, the US affiliate of International Physicians for the Prevention of Nuclear War, which won the 1985 Nobel Peace Prize. In 1987-88 Wales directed the International Security Options Project, which produced a set of recommendations on US nuclear weapons policy under the guidance of George F. Kennan and Robert S. McNamara, among others. During that period Wales assisted McNamara in researching and writing his book *Out of the Cold* (Simon and Schuster, 1989). She holds a degree in comparative literature from Sarah Lawrence College and studied afterward at the Sorbonne in Paris. Wales was a press spokesperson for Senator Walter Mondale in 1975-76 and for the Carter-Mondale transition team in 1976-77. She was coordinator of the White House public liaison office in the Carter Administration and served as deputy press secretary in the State Department in 1979-81.

To bring hard science into Wales's office, Gibbons has designated Frank von Hippel, a Princeton University physicist, to be assistant director for national security. The grandson of James Franck, the German physical chemist who won a Nobel Prize in 1925, von Hippel received a PhD in physics

as a Rhodes Scholar at Oxford. He then taught at Stanford and worked in high-energy physics at Argonne National Laboratory. He has been senior researcher at Princeton's Center for Energy and Environmental Studies since 1974. Von Hippel has attracted a following in arms control circles for his articles in the *Bulletin of the Atomic Scientists* and his activities with the Federation of American Scientists on nongovernmental efforts to stabilize East-West scientific relations. He served five years as chairman of FAS. An ardent proponent of a comprehensive test ban, von Hippel was a key figure in a May meeting with Energy Secretary Hazel O'Leary and other government officials that led to the Administration's decision to extend the moratorium on underground nuclear tests. As an assistant director, von Hippel does not need Senate approval.

Abducting aides

Gibbons also has named two additional assistant directors: Henry C. Kelly, who ran a major project on Technology and the American Economic Transition at OTA for the past decade, is in Johns's policy domain, and Mark Schaefer, currently director of the Washington office of the Carnegie Commission on Science, Technology and Government, will work with Watson in environmental programs.

Kelly has a sound background for OSTP. After he got a PhD in physics from Harvard in 1971, Kelly joined the Arms Control and Disarmament Agency, where he helped develop op-

tions for negotiating positions during the Strategic Arms Limitation Talks. In 1975 he joined OTA and found himself in the newly formed energy program run by Johns. Kelly directed studies on small-scale solar energy devices, world oil supplies, international competitiveness of the US steel and electronics industries, and post-cold-war East-West technology transfer.

Upon receiving an undergraduate degree from the University of Washington in 1977, Schaefer joined the research and development office of the Environmental Protection Agency and later worked at EPA's Environmental Research Laboratory in Corvallis, Oregon. He received his PhD in neuroscience from Stanford University in 1987.

Gibbons is accused good-naturedly by friends on Capitol Hill of abducting a few of his OTA aides for OSTP. Besides Johns and Kelly, this group includes his executive assistant, Sue Bachtel, and his legal counsel, Holly Gwin. Gibbons's decision to move Gwin over to OTA is considered the smart thing to have done. She has been his speech writer and political confidant. She and her husband, what's more, are longtime friends of Gibbons and his wife. Gibbons also took along Katherine (Kitty) Gillman, a senior analyst for advanced technology and defense conversion programs for the past decade. Prior to that Gillman was on the staff of the Council on Environmental Quality, where she dealt with ocean and international environmental issues.

—IRWIN GOODWIN

AS SSC FACES 'LIVE OR DIE' VOTE, DOE'S O'LEARY SHAKES UP MANAGEMENT

It is not a good idea to place bets on whether the Superconducting Super Collider will win or lose when the Senate votes on its funding this month. The SSC lost the support of the House of Representatives on 24 June when its members voted 280 to 150 to scuttle the project (PHYSICS TODAY, August, page 43). Then on 6 August, two days after a sometimes acrimonious hearing by two key committees of the Senate that were supposed to be favorable to the SSC, the *Dallas Morning News* reported on page one that an informal poll revealed only 11 senators "are sure to support continuous funding for the project." The newspaper reported that 35 senators or their staffs indi-

cated they would disapprove the SSC, while 29 were undecided, eight were leaning toward "yes," four thought they would vote "no" and the rest either would not respond or could not be reached. Another survey made by Senator Phil Gramm of Texas, an ardent proponent of the project, found that 30 of his Republican colleagues were prepared to support the SSC but that 25 senators from both political parties were opposed.

Both surveys portend that the \$10 billion proton-proton collider will have a rough time when the energy and water appropriation bill (H.R. 2445) comes up in the Senate. Last year the Senate restored funding for the giant machine after the House voted against it. Even

if the SSC survives the critical vote in the Senate it may face another peril if President Clinton makes additional budget cuts in October, as he promised to do in achieving support for his \$496 billion budget reduction package.

The hearing on 4 August before two powerful Senate panels headed by J. Bennett Johnston of Louisiana revealed just how intense the reaction is to the SSC. Senator Ernest Hollings, the South Carolina Democrat who is chairman of the Commerce committee, scowled when he observed: "There comes a time for every political body to discern between the necessary and the desirable." Senator Dale Bumpers, a

Democrat of Arkansas who is the project's most formidable opponent, said he is sometimes accused by SSC advocates of being "a member of the Flat Earth Society, but I think of myself as a member of the flat broke society. The assumption is that anyone who opposes this project is against basic science." He is against the SSC on the grounds that its cost has escalated from \$4.4 billion when it was first approved in 1987 to more than \$10 billion now. "That's absolutely staggering when we are cutting Medicare and Medicaid and kicking Aunt Susie out of a nursing home," said Bumpers.

In support of the SSC were some half-dozen senators, led by Johnston and including Pete Domenici, a New Mexico Republican, and Arlen Specter, a Pennsylvania Republican.

But it was Energy Secretary Hazel R. O'Leary who attracted the most attention at the hearing. She had sharply criticized SSC managers before Representative John D. Dingell's House energy and water oversight and investigations subcommittee on 30 June and promised to review the situation in 30 days. Her testimony to the Senate panels was, in effect, a preliminary report of her findings.

Surprised SSC watchers

O'Leary said she had decided to take the responsibility for building the behemoth accelerator away from Universities Research Association, a consortium of 79 universities, and give the job to an organization more experienced with large construction projects. Her decision surprised veteran SSC watchers because she did not remove those who have received blame for many of the project's management and accounting problems.

Under O'Leary's plan the new "execute-integrate" contractor will be brought in to manage most major subcontracts, oversee the construction work and control the project's business systems. The new contractor, according to O'Leary, will have "world-class experience in managing large construction projects." It also will administer the three largest subcontracts covering conventional construction, such as tunnels and buildings, magnet production and installation of collider components. An aide to O'Leary said that several companies had expressed interest in taking over—namely, Bechtel Corp, Fluor Corp and Martin Marietta Corp.

URA, formed in 1965 to build and operate the Fermilab accelerator, will continue to have an important role, overseeing the design of the SSC and managing its operation as a scientific laboratory. But directing the actual

construction of the 54-mile ring and its 10 000 magnets that are required to keep the beam of colliding protons in precise place will go to the new contractor. O'Leary's plan stopped short of other options she admitted considering—that of dismissing URA outright, firing URA president John Toll and sacking some SSC managers, including Roy Schwitters and Edward Siskin of the SSC Laboratory. "URA is retained to do what it does best: research and development, scientific design, and management and operation of scientific facilities," said O'Leary.

She rejected the advice of Joseph Cipriano, DOE's project manager, who had drafted a memorandum in his personal computer that recommended dismissing Schwitters immediately. Cipriano's memorandum was leaked to the *Washington Post* and made available by a group called Project on Government Oversight, which had earlier circulated a draft of the DOE inspector general's report charging the SSC with mismanagement. Cipriano's memo asserted that Schwitters' removal "may be the only way to keep the lab from falling apart before the Senate vote." It claimed that morale at the lab was low and "confidence in existing management is practically nonexistent and cost and schedule trends are worsening at an alarming rate." He also suggested putting the project on hold for a year to resolve the management problems and to provide time for the preparation of "reduced scope or phased implementation alternatives" for the SSC's construc-

tion. To do this, he proposed that DOE cut its fiscal 1994 budget request for the project from \$640 million to \$400 million—enough to honor existing contracts but not to start new ones.

O'Leary said that her 30-day review confirmed what SSC officials have long insisted—that the project was on time and on budget. But the review also found lapses. Among the most serious were that the approved accounting system to control cost and schedule overruns is more than a year overdue and still deficient, that baseline costs and schedules have been "inconsistent" and that the lab has done a poor job of anticipating labor shortages. Alarmed by the absence of sound accounting procedures to show that the lab is within budget, auditors at Congress's General Accounting Office and staff of the House energy subcommittee on investigations have predicted large cost overruns, amounting to as much as \$2 billion more. But O'Leary said the DOE review had not turned up such problems.

DOE officials plan to select a new contractor this fall if Congress allows the project to go forward. The transition is not expected to take more than a few months—a delay that would be absorbed by the three-year project extension that President Clinton imposed earlier this year to improve the chance of finding foreign partners. The cost of the change, said O'Leary, would be "*de minimus*" compared to the overall project cost and future management savings should recoup it.

—IRWIN GOODWIN

TO REPLACE AT&T AT SANDIA, DOE PICKS MARTIN MARIETTA

After operating Sandia National Laboratories at cost, without fees or profits, since 1949, American Telephone & Telegraph announced in May 1992 that it was eager to leave the labs for others to run (PHYSICS TODAY, November 1992, page 84). The time had come with the end of the cold war, said the company, to get out of nuclear weapons work and to get on with its more traditional pursuit—to dominate the new era of telecommunications.

In replacing AT&T, the Energy Department issued requests for proposals to 140 organizations, including four universities, and received bids from fewer than 30. On 26 July DOE selected Martin Marietta Corp, headquartered in Bethesda, Mary-

land, to manage and operate Sandia, the department's largest research facility, with 8700 employees and an annual budget of \$1.3 billion. Sandia has two labs, in Albuquerque, New Mexico, and Livermore, California, and two missile test sites, in Tonopah, Nevada, and Kauai, Hawaii. Sandia's principal responsibility is engineering and testing nuclear weapons. It also produces Patriot missiles, which attained notoriety in the Persian Gulf War. In addition, Sandia performs light-ion inertial confinement fusion research and materials research for the magnetic fusion energy program. It also conducts energy and environmental research on a budget of \$250 million per year. In fact, 29% of Martin