

in cost-effectiveness, the Willard panel claimed.

### Guaranteeing the funding base

It turns out that the Murdoch Trust has now approved giving \$276 000 to the institute. DOE has guaranteed to support two of the three new professors. The department also has allotted \$600 000 in its current budget to the institute. Moreover, it plans to

assign \$900 000 for the institute in fiscal 1991, \$1.2 million in 1992 and \$1.5 million in 1993.

According to Henley, the institute will conduct two or three workshops and a summer school this year. Meanwhile, the search for the institute's director goes on under the leadership of Alvin Kwirim, senior vice provost at the University of Washington.

—IRWIN GOODWIN

## WASHINGTON INS & OUTS: BROMLEY FILLS TOP JOBS AT OSTP; LYONS BECOMES NIST DIRECTOR

After months of frustration, waiting for the FBI to complete the national security and financial conflict clearances of his designated top aides, D. Allan Bromley finally filled all four posts of associate directors at the White House Office of Science and Technology Policy. He now has 34 full-time staffers—one more than his predecessor, William R. Graham, but 11 fewer than OSTP's peak staff under George A. Keyworth II, at the start of President Reagan's second term. But even as he filled his most important slots, Bromley was informed of an impending vacancy among his key people.

The departing aide is **James B. Wyngaarden**, a physician who was plucked from the Duke Medical School by Reagan's talent scouts in 1982 to be director of the National Institutes of Health and then was bumped by the Bush Administration over the issue of abortion rights. Then, to the amazement (and amusement) of Administration watchers, Wyngaarden was named by President Bush last June to be the OSTP associate director for life sciences. It seemed likely that at OSTP Wyngaarden's views would bear more political weight than at NIH. The Senate, however, defused any ideological bombshells by withholding its confirmation of Wyngaarden until last November. By then he had decided to run for the position of foreign secretary at the National Academy of Sciences. Not many were surprised when Wyngaarden won the election in a landslide against Rudi Schmid, another physician at the University of California at San Francisco. Wyngaarden will assume his academy post on 1 July.

The other three associate directors have far less controversial backgrounds. **J. Thomas Ratchford**, who served as associate executive director of the American Association for the Advancement of Science under

the last three directors, was confirmed by the Senate in November as OSTP's associate director for policy and international affairs at the same time as was Wyngaarden. Ratchford earned a PhD in solid-state physics from the University of Virginia in 1961, taught at Washington & Lee University and worked at Sandia Labs, the Naval Ordnance Lab and the Air Force Office of Scientific Research. In 1970 he joined the staff of the House Committee on Science and Technology, working on science policy and funding issues dealing mainly with energy R&D. In 1976 he was a research scholar on global energy problems at the International Institute for Applied Systems Analysis in Laxenburg, Austria. The following year he went to the AAAS.

The Senate confirmed the other two OSTP associate directors at the end of March. **Eugene Wong**, chairman of electrical engineering and computer sciences at the University of California at Berkeley, is associate director for physical and engineering sciences. Born in Nanking, China, Wong received both his BS and PhD degrees in electrical engineering, the latter in 1959, from Princeton University. He took time away from his graduate studies in the mid-1950s to work at the IBM Research Laboratory in Poughkeepsie, New York, and re-joined IBM in the early 1960s to work at the corporation's research center in Yorktown, New York. He has been a fellow at Harvard University, Imperial College and Cambridge University. Wong joined the Berkeley faculty in 1962. He was a founder of INGRES Corporation, a major computer software company.

The other most recently confirmed aide is **William D. Phillips**, a veteran industrial researcher who was science adviser to Republican Governor John D. Ashcroft of Missouri since 1987. At OSTP Phillips is associate director for industrial technology. Until he

joined OSTP, he had been president of the Missouri Advanced Technology Institute and professor of chemistry at Washington University in St. Louis. Phillips got a PhD in physical chemistry from MIT in 1951 and worked at DuPont from 1951 to 1978, where he wound up as assistant director for R&D. In the early 1980s, he was senior vice president for science and technology at Mallinckrodt Inc, an international chemical and biomedical products company.

Bromley's staff also has three physicists in prominent positions. His special assistant is **Judith L. Bostock**, who had been on leave from MIT to the White House Office of Management and Budget as a science policy analyst. As an associate professor on the MIT faculty since 1972, she taught condensed matter physics and engaged in research in low-transition-temperature superconductors. Before that she was special assistant to the head of the Institute for Theoretical Condensed Matter Physics at the University of Saarlandes in West Germany. She has been a consultant to the Naval Research Laboratory, BDM Corporation and the science textbook division of Addison-Wesley Publishing Co. At OMB, Bostock was chiefly responsible for the Department of Energy's research budget. She received her PhD in solid-state physics in 1971 from Georgetown University.

**Karl A. Erb**, a nuclear physicist who once worked with Bromley at Yale's A. W. Wright Nuclear Structure Laboratory, is assistant director for physical sciences and engineering. As such he has special responsibility for university-based research and for such physics-related megaprojects as the Superconducting Super Collider, the Relativistic Heavy Ion Collider, to be built at Brookhaven, and the synchrotron light sources at Lawrence Berkeley and Argonne. Erb, who earned a PhD in physics from the University of Michigan in 1970, taught at the University of Pittsburgh for two years before joining Yale's faculty in 1972. In 1980 he moved to the Oak Ridge National Laboratory as a staff scientist. He joined the National Science Foundation in 1986 as program director for nuclear physics and served as the principal staffer of the Nuclear Science Advisory Committee, which reports to both NSF and the Department of Energy.

**Robert L. Post Jr** went on special detail to OSTP from OMB in May 1988, while William Graham was director and science adviser to President Reagan. He stayed on at OSTP

during the interregnum, preparing for Bromley's official succession in August 1989. In the transition period, Post served as OSTP's executive director. Post is currently assistant to the director and responsible for OSTP activities in materials science and engineering. He received a PhD in geophysics from UCLA in 1973 and an MBA from Harvard in 1976. From 1971 through 1974 he served on active duty as a captain at the Air Force Weapons Laboratory in New Mexico, where he developed predictive techniques for nuclear weapons effects. In 1976-78 he was a consultant to R&D Associates, a science think tank in Marina Del Rey, California, which often works for the Pentagon. In 1978, he became an OMB budget examiner for DOE's nuclear-energy defense programs.

Another physicist, **Paul G. Huray**, senior vice president for research at the University of South Carolina, is a consultant to OSTP. In 1985-88 he worked at OSTP as a senior policy analyst. In this capacity Huray provided OSTP oversight at the creation of NSF's still controversial science and technology centers, cochaired the White House initiative to provide greater government support for historically black colleges and universities and headed the Committee on Computer Research and Applications of the Federal Coordinating Council on Science Engineering and Technology (known in Washington circles as FCCSET, or "fix-it"). In 1987 his committee sent to Congress the report entitled "An R&D Strategy for High Performance Computing" and an implementation plan called "The Federal High Performance Computing Program"—an issue resulting in several bills now wending their way through both houses of Congress.

Armed with a PhD in solid-state physics, which he collected from the University of North Carolina in 1968, Huray taught physics at the University of Tennessee. He also did research at the Oak Ridge lab, using a home-made SQUID-based micromagnetic susceptometer, on the transuranic elements curium, berkelium, californium and einsteinium. In 1984, Huray was director of a University of Tennessee-Oak Ridge center of excellence called "The Science Alliance."

On 9 February the Senate confirmed the appointment of **John W. Lyons** as director of the National Institute of Standards and Technology, the new name for the old National Bureau of Standards. Lyons thus became the ninth director of the 89-year-old agency. At his confirmation hearing before

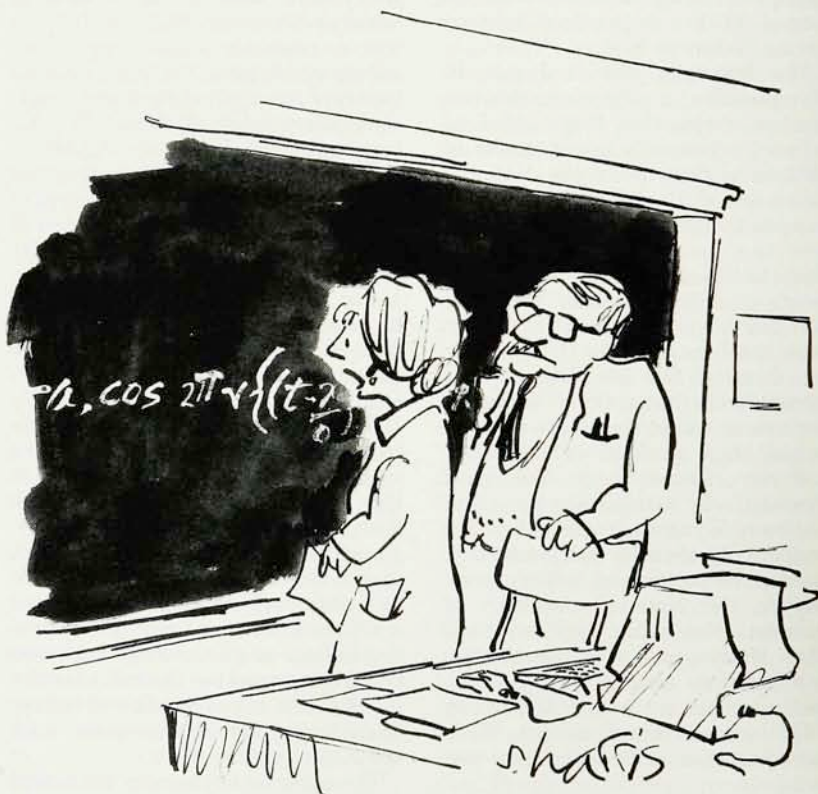
the Senate Commerce, Science and Technology Committee, Lyons vowed to continue the agency's research program in measurement technology, process control, standards setting and test methods—fields that have been reinvigorated in the race to improve US corporate competitiveness in global markets. He also pledged that NIST would increase its emphasis on "generic" research in newly emerging technologies such as high- $T_c$  superconductivity, fiber optics communications, robotics and advanced materials. He told the senators he believed the institute's research results "are and should be available to all, and that in general [NIST] should stay out of proprietary areas.... I firmly believe that a strong relationship between this Federal laboratory and US industry will be all-important if we as a nation are to meet the competitive challenges of the '90s."

With its 3000 employees, NIST is the centerpiece of the Commerce Department's technology programs and is the only Federal laboratory with the specific mission of assisting US industry. In 1988 the institute was

given a new name and charter under the Technology Competitiveness Act, which uses such terms and phrases as "quality," "product reliability," "modernize manufacturing processes" and "manufacturability, functionality and cost-effectiveness" in describing the purposes of the agency's expanded functions. NIST's standard reference materials are used by the nation's top 10 companies and roughly half of the first 100 in *Fortune's* list of the top 500.

At NIST, Lyons was director of the National Engineering Laboratory for the past seven years. He also served as acting deputy director in recent years. In 1973-77, Lyons was NBS's director for fire research. A physical chemist, he received his PhD from Washington University in St. Louis in 1964 while he was working at Monsanto Chemical Co., which he joined in 1955. He is the son of Louis Lyons, who taught at Harvard and was the second director of the Nieman Foundation, which honors mid-career journalists by enabling them to study whatever interests them at Harvard.

—IRWIN GOODWIN ■



"IT'S AN EXCELLENT PROOF, BUT IT LACKS WARMTH AND FEELING."