well as identification of individuals and groups to prescreen proposals. The reviewing process also has involved large burdens for member volunteers. And so, as NSF takes on increasing responsibility for journal distributions (though not as quickly as some would hope) and as Soros's ISF entirely supplants APS and AAS in the grant-making business, Lerch for one is glad to see his role as banker and paper pusher sharply diminish.

The director of ISF's main office in Washington was until recently Harley Balzer, the director of the Russia area studies program at Georgetown University and the author of *Soviet Science on the Edge of Reform* (Westview Press, 1989). The office is now being run by Gerson Sher, who previously was responsible for Soviet and East European affairs at NSF.

Partly so as to give ISF greater international stature, James Watson of double-helix fame, the director of the Cold Spring Harbor Laboratory, has been named chairman. An executive committee directly responsible for management consists of Sher, Alex Goldfarb, an emigré biologist in New York, and Chet Brauch, a Soros Foundation vice president.

Balzer used his time at the foundation mainly to work on telecommunications. He has helped the Russians build a fiberoptic cable network around Moscow that links 15 scientific sites and in turn is connected to the outside world via satellite links; the network includes the Space Research Institute IKI, which also will be connected directly to the US via a link that NASA and DOE are building.

Balzer says ISF spent $1 million on the project, relying primarily on Russian materials and personnel. Similar fiberoptic–satellite networks are planned for St. Petersburg, the Baltics and Novosibirsk, for a total outlay of only about $5 million.

Small and large grants

ISF so far has spent a total of about $20 million on FSU aid, about half on administrative expenses and the rest on some 25 000 emergency grants, each in the amount of $500. ISF funded nearly all the applications it received for emergency small grants. Of these, 9367 or 36.8% were in physics, 577 or 2.3% in astronomy and 1582 or 6.2% in Earth sciences. ISF also has set up an administrative apparatus in the former Soviet states, working with offices and connections of the various Soros foundations and business entities, and it has helped distribute a large array of science journals, including those published by AIP, APS and AAS.

The foundation is gearing up now to review proposals for one-to-two-year grants of $10 000 to $100 000. In contrast to the APS program, all initial screening and review will be done by disciplinary panels with international membership, which are currently being assembled. Thus, APS is supporting four panels in physics, the American Geophysical Union two in the Earth sciences and AAS one in astronomy.

Though there may be fewer proposals to review than was the case in the APS small grants programs, proposals will be much more detailed, and the overall job of reviewing will not be smaller. Each proposal is to be sent to a half dozen experts recommended by applicants for comments, and then reviews will have to be read and evaluated by each 15-member panel. "There probably will be no choice but to have some marathon panel meetings," observes Neal Abraham of Bryn Mawr College, the chair of the panel on laser physics, optics and spectroscopy, and atomic and molecular physics.

Alan Fowler of IBM, the chair of the panel for condensed matter physics, worries about the sheer volume of proposals. Between 500 and 2000 are expected in his subfield, and "if it's 2000, it's a disaster," he says. At the same time, Fowler says he has been struck and touched at "how responsive, how supportive" APS member volunteers have been.

The APS international office has promised to collate reviewers' comments for the physics panels.

Given concern about the hemorrhage of brainpower from the former Soviet states to the US, Israel and Europe, one might suppose that there now would be some concern among FSU scientists about putting their best ideas into the hands of foreign scientists, many of whom might be well placed to capitalize on the ideas themselves. But Abraham says he has detected no such paranoia among his FSU interlocutors. Abraham's impression is that "a craving for certification, a desire for recognition" overwhelms any worry that might exist about losing intellectual property to potential competitors.

A concern Abraham does feel, however, is that after the big ISF grants are made in January, there may be a lot of disappointment and even bitterness and recriminations among those passed over. Some of them and perhaps many will find that they simply cannot afford to continue to do science, and at least in the near term some will find themselves among those who already have turned to trade in cigarettes and perfume to make a living.

While it would be heartening to suppose that many such physicists will turn their skills and talents to innovative enterprises that enhance the productive capacities of the FSU states and help those countries out of the current economic depression affecting nearly all of them, there is little immediate prospect of that happening on a significant scale. That will await, Balzer observes, the enactment of property and tax laws to protect investment of intellectual and material resources.

—WILLIAM SWEET

PREPARING TO STEP DOWN, FORD CONSIDERS ACCOMPLISHMENTS

For the past six and a half years Kenneth W. Ford, Executive Director and CEO of the American Institute of Physics, has overseen an organization in transition. In response to a changing world—increasing competition in the publishing industry, the demise of the Soviet Union and the end of the Cold War, and the changing job market for physicists—he has guided the institute through an overhaul of its publishing activities and physics programs.

Ford's retirement on 31 October and the succession of Marc Brodsky (see PHYSICS TODAY, June, page 79) coincide with the relocation of AIP headquarters from New York City to the American Center for Physics in College Park, Maryland. Ford is quick to put the relocation in perspective. "Although establishing the ACP was probably the most visible thing that occurred during my tenure," he told PHYSICS TODAY, "I don't regard it as the most important thing. What an organization does is more important than where it does it."

During Ford's tenure AIP began publishing several new journals, including *Chaos* and *Computers in Physics*. And the entire publishing operation, much of it located on Long Island, New York, was streamlined, Ford says, especially under the recent leadership of AIP's director of publishing Darlene Carlin. "We've made notable progress in production

efficiency and cost containment. We've been able to avoid the huge subscription price increases that many journals have had, even though our number of pages and our costs for paper and postage have each grown by about 6% per year."

AIP has long been a translator and publisher of Russian-language physics journals. But that effort, which accounts for more than 25% of AIP's publishing revenues, entered uncharted territory several years ago with the Soviet Union's breakup.

"Under our current contract, which expires at the end of 1993," Ford explains, "we translate and publish 17 journals. During the last two years we've put considerable effort into getting continuation agreements. We've succeeded in gaining full rights to translate and publish eight journals, and we've gained the marketing and distribution rights to seven of the other journals. So we're only losing two journals [*Quantum Electronics* and *Physics–Uspekhi*], which will be published by Turpion, a British publisher."

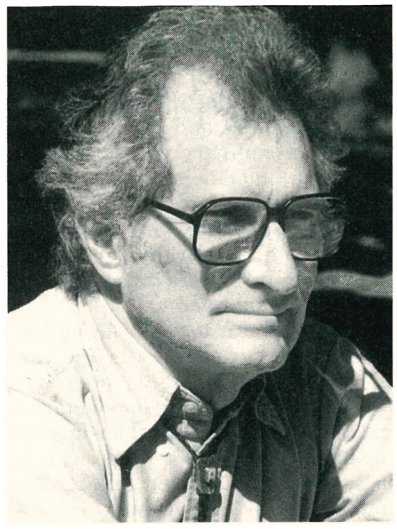
"For me personally, working with the Russian program has been an especially rewarding part of the job," Ford says. "I've gotten to know and work with editors and officers of the Russian Academy, and AIP has been trying to help them as much as possible. The level of appreciation within the FSU for what we're doing is very high. That gives a very rewarding feeling." (See the box on page 114 for a description of AIP's aid to FSU scientists.)

Ford also worked to increase the impact of AIP's education activities. Among other things, he appointed John Rigden as director of physics programs, and he moved the education division to Washington, DC, expanding its role beyond its traditional management of the Society of Physics Students. "My personal priorities include educating children and the public and preserving the history of physics," Ford says. He points out that the new building in College Park features a prominent wing for the Niels Bohr Library that will triple its present space.

Looking back and ahead

Ford received an AB in physics from Harvard University in 1948 and a PhD in theoretical physics from Princeton in 1953. He then joined Indiana University as a research associate and became an associate professor there four years later. He held physics professorships at Brandeis University (1958–63), the University of California, Irvine (1964–70) and

BERTRAM SCHWARZSCHILD



Kenneth W. Ford

the University of Massachusetts, Boston (1970–75), before becoming president of the New Mexico Institute of Mining and Technology in 1975. During 1982–83 he was executive vice president of the University of Maryland, and he then left the academic world to become president of Molecular Biophysics Technology in Philadelphia. In 1986 he became the first education officer of APS, and he was named AIP executive director in March 1987, succeeding H. William Koch.

"In my career I've tried many things," Ford observes, "from research to teaching to book writing to managing. Serving as AIP executive director has been the most challenging position I've ever held, even relative to being a college president. It's been more varied, more problematic, more challenging—it's also been very rewarding."

These are of course interesting times for physics, as a profession and as a field of research. But despite some rather troubling signs, Ford remains sanguine about the future of both endeavors. "I don't see that physics is at a watershed," Ford says. "Regrettably, the job market is bad, for the second time in recent decades. And it's been the same in both cases: Increasing production of physicists has intersected with declining demand. But I think the situation will prove temporary and that the demand for physicists, particularly in academia, will pick up in the late 1990s."

"One thing that makes the current situation different from the early 1970s," Ford says, "is that funding for basic research is lagging ever farther behind the scientific community's requests. There will have to be a good deal of belt tightening, a painful process."

Given the challenges presented by this setting, Ford is confident that his successor, Brodsky, will thrive. "I think Marc is outstanding, not only as a physicist but also as a person," Ford says, "I know he'll be well respected and admired by those who work with him."

As for his own plans come 1 November, Ford says, "Among the things that have given me special pleasure are writing books, flying airplanes and spending time with my family. I hope to do more of all three." Ford is the author and editor of a number of books, including *The World of Elementary Particles* (1963) and *Basic Physics* (1968). He is an instrument-rated pilot and glider pilot. He has seven children and two grandchildren.

—JEAN KUMAGAI

IN BRIEF

The American Institute of Physics has renamed its book program AIP Press. Separately, Oxford University Press has replaced Britain's Institute of Physics as the foreign distributor for AIP books.

The Association for Women in Science has published a 349-page book on how women can serve as mentors or obtain mentors in science. Contact AWIS, 1522 K Street NW, Suite 820, Washington DC 20005.

Ernest Rutherford now appears on New Zealand's 100-dollar bill, the nation's highest-denomination banknote. For information on purchase of collector's sheets, contact Currency Department, Reserve Bank of New Zealand, P. O. Box 2498, Wellington New Zealand. ■

American Center for Physics to Open on 25 October

The American Center for Physics will open on 25 October and from that point on will be the home of, among other things, this magazine. The ACP's address is 1 Physics Ellipse, College Park, Maryland, 20740-3843; the phone number is (301) 209-3090. It will house the American Institute of Physics, the American Physical Society, the American Association of Physics Teachers and the American Association of Physicists in Medicine. The AIP and AAPM offices will open 25 October; the APS and AAPT offices will open in mid-November.