

tor: "I arrived [in Russia] very soon after the putsch of 19 August and rather expected to find a climate of the order of 'May 1968 in France' [a time of political euphoria]. In fact the enthusiasm about anticipated political changes is almost exclusively a thing among the very young. . . . Man or woman, institute director or technician, everyone has to leave for a long time every day to do shopping errands. . . . There is only one single central library in St. Petersburg where subscriptions to foreign journals have not been interrupted because of hard currency shortages. People come from far and wide, and one has to wait several hours to consult a copy of *Physical Review*!"

From this account and many others it is evident that there is a rather sharp generational cleavage in the FSU states. Under the circumstances the possibility either of reaction—or of much more radical revolution—cannot be dismissed.

Other nightmarish scenarios also are conceivable and even plausible. Commenting on a recent decision by Finland to spend \$3 billion for combat jets from McDonnell-Douglas, a Soviet expert with the Carnegie Foundation said, "If something goes very wrong [in the FSU], one of the things that could happen is not the emergence of a right-wing central government but the development of a local warlord situation."

A deep uncertainty about the future, together with the anti-Semitism that surfaced with *glasnost*, has of course been an important motive prompting some FSU scientists to seek work abroad. How serious is the danger of a brain drain? The situation at the leading physics institutes appears from many reports to be quite varied, and FSU scientists seem to disagree among themselves about the acuteness of the threat and about the kind of attitude one should adopt. Several eminent FSU scientists—among them Vitaly Ginzburg in a recent visit to *PHYSICS TODAY*—have voiced a degree of unease about individuals leaving permanently and about foreign programs that encourage scientists to leave permanently. Ginzburg particularly favors programs that enable researchers—especially young researchers—to pay short visits of up to a few months to foreign institutions.

The New York Academy of Sciences and the Committee of Concerned Scientists launched a project four years ago to place emigré scientists in the US, which has helped about 50 individuals find jobs so far. Yet even some of the people who are promi-

nently associated with the project do not necessarily approve of FSU scientists taking permanent jobs in the US.

Sagdeev, both publicly and privately, has tended to minimize dangers associated with brain drain, including the rogue weapons scientist. By his estimate, there may be only two or three dozen FSU physicists who have accepted permanent jobs in the US. However, Voloshin pointed out at a press conference after the APS meeting of FSU scientists that the emigration of just a few leading scientists was enough to seriously retard science in Nazi Germany.

At least superficially, the current crisis is reminiscent of the situation in Weimar Germany in the 1920s, which prompted the formation of an emergency committee to aid German science. For example, the Rockefeller Foundation made a major grant for establishment of a physics institute in Berlin in the 1920s and remained true to its commitment after the Nazis took power, only to see the institute incorporated into the Nazi war machine in the 1940s.

David Hamburg, current president of the Carnegie Foundation, has made forceful presentations of the Weimar analogy in recent talks—with the clear intention of warning against the dangers of failing to provide adequate aid to FSU science. Yet there are those, including Bromley, who reject

that analogy with equal force: "I don't think that's a fair comparison at all," he told *PHYSICS TODAY*. "The situations are totally different."

Rationales for aid

Individuals concerned about FSU science have formulated a variety of arguments as to why it is in the interest of foreign countries and foreign societies to help. Several such arguments were articulated in the articles in the May issue of *PHYSICS TODAY*, and another is made in a letter by Andrei Linde of Stanford University in this issue (see page 13).

Asked which arguments he personally finds most persuasive and which he finds most effective in the counsels of government, Bromley said there are two: "First, Soviet science has been an integral part of world science and technology, and continued contributions are to be expected. Second, in contrast to most other societies, scientists and technologists had a privileged position in the USSR, and they can help provide stability today."

Not least among the ironies in the current situation is the argument proffered by Bromley, Voloshin and others that FSU physicists—precisely because they contributed so mightily to the critique of the Soviet state and to its unraveling—are crucially situated today to lend stability to the newly emerging order. —WILLIAM SWEET

AIP CONCLUDES AGREEMENTS WITH FSU TRANSLATION JOURNAL EDITORS

For many years the translation into English of 20 Soviet physics journals has been one of the most important services performed for the physics community by the American Institute of Physics—and it has been an important source of AIP revenue as well. In what now seems an almost enviably simple and straightforward arrangement, AIP translated, published and distributed the journals under a single comprehensive contract with a central Soviet publishing agency.

Even before last year's coup attempt, the breakup of the USSR and the founding of the Commonwealth of Independent States, it was apparent that the journal translation program would have to be reorganized. Pursuant to Gorbachev's policy of *perestroika*, the founders of each Soviet journal were authorized to enter into contracts with foreign organizations. At the same time, because of *glasnost*, Soviet scientists began to publish in foreign journals—a desirable development, of course, but one that threat-

ened to lead to a decline in the quality of the Soviet journals.

With the onset of the economic crisis in the former Soviet states, the journals also have been confronted with dire financial problems, limited access to hard currency, shortages of materials and so on. Under the circumstances AIP has sought both to be of assistance and to consolidate new relationships with the journals and their editors. Last November AIP sponsored a meeting in New York of the editors from the former Soviet Union, their translation-editor counterparts in the US, and AIP staff, where problems of mutual interest were thrashed out. During the meeting it was announced that AIP would provide the FSU journal editors with complimentary subscriptions to journals published by AIP, The American Physical Society and other member societies (*PHYSICS TODAY*, April, page 82, and February, page 90). AIP executive director and CEO Kenneth W. Ford and publishing director Dar-

lene Carlin have made several trips to Russia to negotiate directly with journal editors and, in some cases, their publishing representatives.

AIP now has concluded contracts or protocols with 20 physics journals in the FSU. The contracts finalized so far are with *Low Temperature Physics*, *Optical Technology*, *Particles and Nuclei*, *Semiconductors*, *Solid State*, *Superconductivity*, *Technical Physics* and *Technical Physics Letters*. Ford and Carlin have reached oral agreements with the editors of *JETP* and *JETP Letters*, the approximate Russian counterparts to *Physical Review* and *Physical Review Letters*, and with the editors of various other journals. Recently, however, Yuri Osipov, the new president of the Russian Academy of Sciences, has declared that the academy must be a party to any contract, and so additional negotiations will be necessary.

Raising standards

AIP and the FSU editors have tried to maintain the quality and relevance of the former Soviet journals by aiming for simultaneous or near-simultaneous publication of the Russian and English versions. AIP and the editors also have tried to shorten intervals between submission of papers and their publication. And in some cases the FSU journals have decided to accept or may consider accepting papers by foreign authors for publication, in English, in the original Russian journals. The objective, obviously, is to make the FSU journals truly international physics journals of the first rank.

Thus Vsevolod F. Gantmakher, the Russian editor of *JETP Letters*, has announced his firm intention to accept papers in English. In a recent communication with PHYSICS TODAY, Gantmakher said that "once published in English among Russian-language papers in the original Russian version of the journal, such an article [will be] reproduced without changes in the English version. But the authors [will get] reprints in English from Moscow before the English version appears."

Solicitation of English-language papers "would not work if it were not accompanied by another very important improvement," Gantmakher went on to say. "The time for publication is now shortened, on the average, to 1½ months. It takes another month and a half for the English translation to be printed and mailed. So the delay between 'saying it in Russian and being heard in English' is now only three months, [and] sometimes it is even quicker."

MILLER IS NAMED EDITOR OF PALEOCEANOGRAPHY

Kenneth G. Miller, an associate professor of geology at Rutgers University, has been named editor of *Paleoceanography*, a journal devoted to studies of past oceans and published by the American Geophysical Union. Miller succeeds Robert Thunell of the University of South Carolina.

As editor Miller plans to increase the journal's coverage of paleoclimatology—the study of past climates—which he says is "inextricably linked" to research in paleoceanography. To ensure that timely articles are published quickly, he is introducing a new feature called "Paleoceanography Currents," which will include shorter articles and editorials.

Miller's research has included studies of the effects of global sea-level change on passive continental margins and studies of the geological record of the interactions of deep-water circulation, climate change and tectonics. He is helping to plan and implement the New Jersey Sea Level/Mid-Atlantic Transect Program, which will provide a record of sea-level variations for the past 35 million years.

Miller earned a PhD in oceanography from the MIT/Woods Hole Oceanographic Institution in 1982. For the next five years he was an associate research scientist at Columbia University's Lamont Doherty Geological Observatory. He moved to Rutgers in 1988.

NEW EDITORS AND SECTIONS FOR PHYSICAL REVIEW

The American Physical Society has decided to create a new *Physical Review* journal by renaming one of the two sections of *Physical Review A*. The new journal, *Physical Review E*, will be devoted to statistical physics, plasmas, fluids, beam physics, classical physics and biological physics, all of which are currently covered in the A15 section; starting in January 1993 computational physics will also be covered. *Physical Review A* will encompass atomic, molecular and optical physics, the material now covered in the A1 section. The change takes effect in January 1993.

Bernd Crasemann of the University of Oregon has been named editor of *Physical Review A*, and Irwin Oppenheim of MIT has been named editor of

Physical Review E. They succeed Benjamin Bederson of New York University, who was editor of both sections of *Physical Review A* prior to becoming APS editor in chief in January.

Crasemann earned a PhD in physics from the University of California, Berkeley, in 1953 and then joined the faculty of the University of Oregon, where he is currently a professor of physics. His research includes studies of threshold phenomena in atomic inner shells and of relativistic and quantum electrodynamics effects, as well as the application of synchrotron radiation to these studies. He is a former chair of the APS Publications Committee and has served on the editorial board of *Physical Review C*.

As editor Crasemann plans to continue the editorial policies of his predecessor but says he will emphasize international work and expand coverage of optical physics. He says he would also like to improve the peer review system by increasing the number of referees who provide prompt, informative reviews and by reducing the time between manuscript submission and publication.

Oppenheim earned a PhD in physical chemistry from Yale University in 1956. From 1953 to 1960 he was a physicist at the National Bureau of Standards. In 1961 he moved to MIT, where he is now a professor of chemistry. His research deals primarily with the statistical mechanics of irreversible processes.

Oppenheim says, as editor of *Physical Review E*, he will mostly maintain the same content and editorial policy of the A15 section. The coverage of computational physics in the journal reflects the recent formation of the APS division of computational physics.

RISE IN APS MEMBERSHIP RESULTS IN COUNCIL CHANGES

The representation of certain divisions and subunits of The American Physical Society on the APS council will change in 1993. Five divisions will each lose one councillor, while two other subunits will each gain a councillor.

The changes reflect a 3.8% rise—to 43 207—in the total APS membership in 1991. Under the revised APS constitution ratified in 1990, that figure is used to determine the number of councillors each division can elect in 1992. Divisions must maintain a membership of at least 3% of the total APS membership to retain