

Yugoslavia increased slightly. In 1994, for example, Russians accounted for 284 of the 5885 scientists granted permanent resident status, up from 193 the previous year.

The number of technologists and technicians immigrating to the US dropped by 7% in 1994 from the 1993 record of 10 234; in the preceding years, immigrants in those categories had come mostly from East Asia, but in 1994 the chief region of origin was Eastern Europe.

Ibbott Is AAPM President-Elect for 1998

On 1 January, Geoffrey Ibbott will become president-elect of the American Association of Physicists in Medicine. He will succeed Lawrence Rothenberg, who will assume the presidency of AAPM.

Ibbott holds a joint appointment at the University of Kentucky Medical Center as an assistant professor and director of physics in the department of radiation medicine. He earned his BA and MS from the University of Colorado at Denver, and his PhD in radiation biology from Colorado State University. His research has included radiation dosimetry with a polymerizing gel and the effects of irradiation on taste and other oral senses; he also trains graduate students, residents and radiation therapists.

Ibbott says that a particular concern to medical physicists is the existence of two professional certification boards: the American Board of Radiology (which AAPM sponsors) and the American Board of Medical Physics. The boards offer essentially the same certification exams, he explains, and yet many medical physicists, especially the newer ones, end up



G. IBBOTT

taking both, at double the expense. (Certification in the ABR, for example, costs \$800 plus travel expenses.) "It's an emotional and complex issue," Ibbott observes. "Clearly, we don't need duplicate exams, and so a goal of the entire community is to resolve this issue once and for all."

The association will also be looking at the impact of managed care on the profession and proposed changes in

Federal regulations. "It appears that the Nuclear Regulatory Commission intends to expand its regulation of medical uses of radiation," Ibbott says. "If they're going to do that, we'd like to be involved in the decision-making process."

Also taking office in January will be Melissa Martin (Therapy Physics Inc in Bellflower, California), who is AAPM's new treasurer. And the four new board members at large will be Frank Bova (University of Florida), James Chu (Rush University), Marlene McKetty (Howard University Hospital) and Jeffrey Williamson (Mallinckrodt Institute of Radiology).

OSA Seeks New Executive Director

On 1 September, David Hennage stepped down as executive director of the Optical Society of America. In a brief statement announcing the sudden move, the OSA board of directors praised Hennage's "significant accomplishments in his four years as executive director... particularly in providing strategic direction and leadership enabling the Society to pursue its mission and maintain a sound financial position."

OSA president Janet Fender said the move was mutually agreed to by the OSA board and Hennage. "We really appreciated David's forward-looking style and his grasp of the big picture," she added.

Hennage will continue as director of special projects, consulting on OSA's international activities and its long-range planning process. Commenting on his tenure as executive director, Hennage told PHYSICS TODAY, "I worked with the board to prepare OSA for a less certain future, both financially and programmatically. We were successful in doing that, but at this time the board has decided they want to go back to a more traditional way of operating, and we agreed that OSA needed new leadership to move in that direction."

Until Hennage's successor is chosen, the executive director's responsibilities are being shared by three OSA staff directors (Liz Rogan, who is handling finance; Andrea Pendleton, communications; and Gus Rassam, publications). A search committee, headed by OSA president-elect Gary Bjorklund, convened last month during OSA's annual meeting and is now seeking candidates.

IN BRIEF

On 15 September, Fermilab shut down its Main Ring to make way for a more powerful injector for the lab's Tevatron, the world's highest energy particle accelerator. In operation for 25 years, the Main Ring was originally used on its own as an accelerator—the bottom quark was detected there in 1977—and later as the injector for the Tevatron, where the top quark was first detected two years ago. The Main Ring's quadrupole magnets and radio frequency cavities will be used in the new \$229 million Main Injector, scheduled to begin operating in 1999. It's designed to increase tenfold the rate of proton-antiproton collisions at the Tevatron.

FERMILAB VISUAL MEDIA SERVICES



SWITCHING OFF THE MAIN RING BEAM, from left to right: Rich Orr (Fermilab), Andy Mravca (Department of Energy), John Peoples (Fermilab director) and Bob Mau (Fermilab).

World records in fusion power were set at the Joint European Torus in Abingdon, England, in late September. Using equal parts of deuterium and tritium as fuel, JET produced 12.9 MW of power. The ratio of output-to-input power was 0.5, also a record, and a step toward creating the self-sustaining burning plasma necessary for net power production. Geometry and size were the main factors responsible for JET's surpassing the previous highs, 10.7 MW and 0.28 output-to-input power ratio, which were achieved in 1994 at Princeton University's Plasma Physics Laboratory Tokamak Fusion Test Reactor (TFTR) also with a 1:1 D-T fuel mixture. JET's magnetically confined plasma has a D-shaped cross section, which makes possible a larger plasma current than did the circular cross section of TFTR's plasma, and also leaves more space for a diverter, which siphons off impurities that would cool the plasma, explains Alan Gibson, JET's deputy director. The current—and hence the plasma confinement—are also buoyed by JET's larger size. Since TFTR was shut down last April, JET has been the world's only fusion facility that can

handle D-T fuel mixtures. The current JET experiments are aimed at studying the physics of plasma confinement in D-T plasmas and measuring self-heating by fusion, says Gibson. The results will be key in designing ITER, the planned International Thermonuclear Experimental Reactor. JET is funded by the European Union (80%) and by member countries through 1999; schemes to extend JET's funding are under discussion.

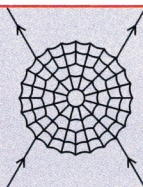
This past summer, grants from several sources saved the US Civilian Research and Development Foundation for the Independent States of the Former Soviet Union, or CRDF, from closing its doors. The foundation, which funds scientific collaborations between researchers in the US and the

former Soviet Union, met the 1 August deadline to find matching funds to free up the last of \$10 million in startup money from the Department of Defense. (See PHYSICS TODAY, July, page 53.) The State Department committed a total of \$500 000 to CRDF to fund joint US-Armenian research projects, as well as help start a National Foundation for Science and Advanced Technology in Armenia. The National Science Foundation is contributing \$462 000 for a new program to support young Russian scientists and graduate students. And NOAA is putting up \$900 000 for a survey of the Bering Sea's pollock population. But while these grants will keep CRDF afloat for now, the foundation's longer-term funding situation remains precarious. ■

Web Watch

► <http://isotopes.lbl.gov/isotopes/toi.html>

The Table of Isotopes home page is maintained at Lawrence Berkeley National Laboratory, home of the Isotopes Project, whose staff members have prepared the table since 1940. The home page has data from the 1996 (8th) edition, including properties of the elements, atomic data such as binding energies and x-ray energies, radioactive decay data and nuclear astrophysics data. Files are typically in postscript or pdf format. The CD-ROM version of the table can be sampled on-line for mass numbers in the ranges $A=1$ to 20 and $A=263$ to 272. Linked to the site is the Isotope Explorer Nuclear Science References Database, a collaboration between LBNL and Lund University in Sweden. The database currently contains about 140 000 literature references on nuclear physics from 1910 to April of this year. The explorer facilitates searches for specific nuclides and reactions, as well as more mundane keys such as author and publication date.



► http://www.glacier.rice.edu/chapters/tea/tea_introduction.html

"Teachers On Ice" is one way to describe the National Science Foundation's Teachers Experiencing Antarctica (TEA) Program. During the 1997-98 season, eight high school teachers and three students are spending four to eight weeks in Antarctica or the Arctic, participating in ongoing research such as drilling ice cores to study climate change and exploring the deglaciation history of the Ross Sea from an icebreaker. As well as doing the research, the teachers keep daily journals (available on-line) and answer questions e-mailed from students in warmer climes.

► <http://www.aerospacejobs.com/>

Aero Space Jobs is a Web-based service for employment in aviation and aeronautics ("Aero Jobs") and the space industry ("Space Jobs"). Job seekers can search the postings on-line or sign up for e-mailed notices of jobs. Companies can register for free, which gets them a profile page on Aero Space Jobs and (at present) their first career ad. Companies must pay a fee to place each additional career ad. The ads remain on-line for three months. The site also has an events listing.

► <http://fnlib.fnal.gov/marion>

Fermilab's library catalog is another source of papers on-line (for others, see Web Watch for April, page 58). A versatile, easy-to-use search engine allows keyword searching of the library's holdings, including preprints received at Fermilab. Full text is provided for many preprints posted since 1995.

► All links mentioned in Web Watch are included on PHYSICS TODAY's home page,

<http://www.aip.org/pt/>. If you have suggestions for other topics or sites to be covered in Web Watch, please e-mail them to ptwww@aip.acp.org.

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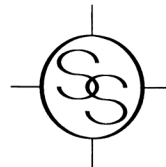
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