safety in France.

It's generally believed that cleaning of the casks, which are immersed in radioactive cooling water when the spent fuel rods are loaded, has been inadequate. And, noting that utility companies' records show that the levels of contamination have gotten worse over time, the Paris-based World Information Service on Energy's Mycle Schneider, who uncovered the story, suggests that cross-contamination between railcars, trucks and casks is also a factor. In a report prepared for the French prime minister, Lionel Jospin, DSIN's Lacoste blames the utility companies for the transgressions. He also notes that his organization gained responsibility for nuclear waste transportation only last summer; before that, government oversight in France had been scanty.

Nuclear waste shipments will resume only after the cause of the contamination has been determined, and procedures implemented to remedy the situation, say German, French and Swiss officials. **TONI FEDER**

Eastman Exits Argonne

On 30 June, Dean E. Eastman stepped down from the directorship of Argonne National Laboratory to join the physics faculty at the University of Chicago, which runs Argonne for the Department of Energy. Eastman plans to resume research in condensed matter physics after nearly 20 years in technology administration, mostly at IBM Corp, where he worked before moving to Argonne two years ago.

As director of Argonne, Eastman worked to strengthen funding for the lab's core science and technology capabilities, including computer science, nuclear physics, energy and environmental research. He also made changes in administrative practices. "The result was that I moved more than $20 million per year from the administrative side of the lab to the programmatic side," he says.

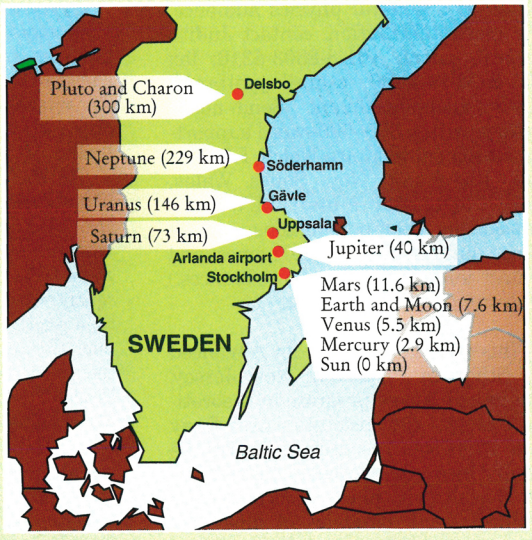
"Maintaining a quality lab with good job satisfaction under the continued pressure on discretionary funding is the greatest challenge in leading Argonne—as with other government-funded research institutions," says Eastman. He introduced new performance-based appraisal and compensation policies, so that Argonne employees now work more closely with their supervisors to define job expectations, and compensation is clearly linked to performance, he says. "To me, coming from the private sector, it was obvious that you want to have a system that both creates performance incentives and is viewed as fair. It helps the quality of the workplace."

Having gotten "pretty far" with his goals for the lab, Eastman says, he decided to step down. "Some months ago I reached the conclusion that I would really like to have a better balance between my professional and personal interests."

An interim director had not yet been named when PHYSICS TODAY went to press.

Sweden Recreates the Solar System

The next time you're in Stockholm picking up that Nobel, you could check out the Sweden Solar System, the world's largest model of our planetary system. Created on a scale of 1:20 million, the SSS is centered at Stockholm's Globe Arena, an 85-meter-high spherical building that represents the Sun and its corona. From there, the planets are arrayed along a mostly northerly line, with Mercury, Venus, Earth and Mars falling within Stockholm city limits, and Pluto lying some 300 kilometers distant.



Scaled models of the planets and accompanying exhibits are being installed at each site, says Gösta Gahm, an astronomy professor at Stockholm Observatory who, with plasma physicist Nils Brenning of the Royal Institute of Technology, has led the project. In May, a 62 cm diameter model of Venus was unveiled during the 250th anniversary celebration of Stockholm's Old Observatory. Last month, at a folk festival in the tiny burg of Delsbo, sculptor Bergsteinn Asbjornsson presented his model of Pluto (12 cm) and its satellite Charon (6 cm). Inspired by the pair's unusual synchronous rotation, he has depicted them as crystal orbs revolving around one another in tiny sandstone and basalt boats. The remaining planets will be completed over the coming year or so. "At this scale, one gets the direct feeling of how empty and desolate space is, how small and far away the planets are," notes Gahm.

The SSS first occurred to Brenning about four and a half years ago, as he prepared to give a talk at his daughter's grade school. Paging through back issues of *Sky and Telescope*, he happened to spot the article "Modeling the Universe in Your Mind," by Hugh Downs. "At that instant, the idea came ready-made into my mind to use the Globe Arena for the Sun," Brenning recalls. "I pulled out a map in the telephone directory and soon found that I could fit the inner planets quite nicely into the city of Stockholm." He continued to toy with the idea, and about a year later, he posed it to Gahm, who's known in Sweden as a science popularizer and served as director of the Swedish Museum of Natural History in the 1980s. As Brenning remembers, "Gösta simply said, 'Nice idea, let's do it!' " And so they set about selecting sites, drumming up interest and, not least of all, raising money.

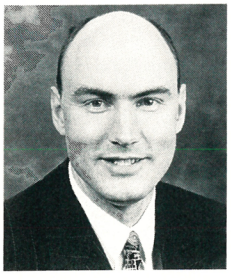
So far, the project has been budgeted about $750 000 from various sources, with additional costs being borne by each site and defrayed by a lot of volunteering, by Gahm, Brenning and others. Although still unfinished, the SSS has received wide coverage in the Swedish press, and public interest is "already enormous," Gahm says. Indeed, adds Sven Lorentzi of the Stockholm Information Service, it promises to become a major tourist attraction—for those who want to travel the Solar System without leaving Sweden. **JEAN KUMAGAI**

IN BRIEF

The Australian Institute of Physics is accepting nominations for its second annual Women in Physics Lecturer. The award will go to a woman who has made a significant contribution to physics research and who has also demonstrated public speaking ability. The winner will give a lecture tour in Australia for 2–3 weeks next

summer, with accommodations and travel paid for. Lectures should be aimed at a general physics audience. For more information, contact Judith Pollard, phone +61-8-8303-5316; fax +61-8-8303-4380; e-mail jpollard@physics.adelaide.edu.au. Send nominations with a 300–500–word supporting statement to Moira Welch, P.O. Box 283, Richmond, New South Wales, 2753 Australia; e-mail M.Welch@uws.edu.au. (Self-nominations are welcome, and should include names and contact information for two references.) They are due by 17 August.

This fall, the Institute for Advanced Study in Princeton, New Jersey, will launch a new program in theoretical biology—the institute's first foray into biological research. It will be headed by mathematical biologist Martin Nowak, who plans to focus on the evolution and dynamics of infectious diseases, including modeling mathematically the human immunodeficiency virus (HIV), with the aim of optimizing antiviral therapies. Another project will involve modeling the propagation of prions, the proteins believed to be responsible for spongiform diseases—such as mad cow disease, scrapie in sheep and Jakob–Creuzfeldt disease in humans. In the case of prions, which don't have genetic material, "infection may spread by healthy prions taking on the conformation of diseased ones through aggregation," says Nowak. "In some sense, it's like crystallization." A native of Austria, Nowak earned his undergraduate degree in biochemistry and his PhD in mathematics at Vienna University. He has been at the University of Oxford in England since 1989, and became a professor there last year. Start-up funds for the theoretical biology program were donated by IAS trustee Leon Levy.



MARTIN NOWAK

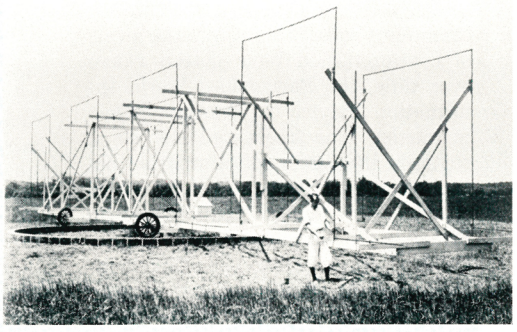
Television may soon air more science news. That, at least, is what Eliene Augenbraun and Ira Flatow, host of National Public Radio's "Science Friday" program, aim to achieve with Science and Technology News Network (STN^2), their new service to provide science news to commercial television and cable networks nationally. (Inside Science TV News, produced jointly by the American Institute of Physics and the American Chemical Society, is a competing service.) According to a survey done last year by Augenbraun, Flatow and the Radio and Television News Directors Foundation, 65% of the 150 television news directors polled said they would "air more stories about science or the environment if [they] could obtain them from a trusted news source." Produced by the Stamford, Connecticut-based nonprofit Center for Science and the Media, STN^2 got its start with about $500 000 from the Alfred P. Sloan Foundation, with additional support from the Materials Research Society and other sources. Its first news stories—on pharmaceutical residues in drinking water, infant death from household fungus and the chances of Earth–asteroid collisions—were aired by 60 television stations in May. Beginning this month, Augenbraun and Flatow plan to produce several 30- to 90-second spots per week, on such topics as the environment, health, space, physics, technology and science policy.

Despite several decades of attention, undergraduate education at US research universities still gets failing marks, a recent report funded by the Carnegie Foundation for the Advancement of Teaching concludes. Prepared by a blue-ribbon panel of academics and administrators, including Nobel laureate C. N. Yang and National Academy of Sciences president Bruce Alberts, the report finds that students typically graduate from research universities with "too little that will be of real value beyond a credential that will help them get their first jobs." The report lays out a ten-point plan for "making sure that undergraduates share in the wealth of the research universities," says commission chairwoman Shirley Strum Kenny, president of the State University of New York at Stony Brook. "Every school's solution will be different—as it should be," she says. "But there needs to be a sense of urgency about improving the education of our undergraduates." *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* can be downloaded from the World Wide Web at http://www.sunysb.edu/boyerreport; printed copies are available by calling 516-632-6265. ■

Lucent Technologies Honors Karl Jansky

With this antenna, Karl Jansky discovered in 1932 that the Milky Way emits radio noise, now known to be galactic synchrotron radiation. On 8 June of this year, Lucent Technologies unveiled a stylized sculpture of the antenna at the site of his observations, in Holmdel, New Jersey.

LUCENT TECHNOLOGIES



Jansky, a physicist at Bell Laboratories (now the R&D arm of Lucent), is seen here with the 100-foot Bruce array antenna he used—it had two square-wave elements separated by a quarter wavelength, with one, the reflector, taller than the other, and it rotated on Model T Ford wheels. Jansky made his discovery by doggedly pursuing the source of noise signals he picked up at 20.5 MHz, eventually attributing it to the stars, and pinpointing it to Sagittarius, in the direction of the Galactic center.

Pulsars, quasars, radio galaxies and cosmic microwave background radiation are among the discoveries that followed from Jansky's work. And, although Jansky is now considered a pioneer in radio astronomy (with the unit for radio flux density named for him), it wasn't until well after his early death in 1950 that the significance of his finding was recognized.

Bell Labs astrophysicist J. Anthony Tyson and Nobel Prize winner and former Bell Labs researcher Robert Wilson spearheaded the effort to build the memorial sculpture, including using aerial photos and old maps to pinpoint, to within about 20 feet, the original site. Relatives of Jansky's, as well as contemporary colleagues, attended the dedication ceremony.

TONI FEDER

Web Watch

Web Watch will be back next month. Please continue to e-mail your suggestions for topics for sites to ptwww@aip.acp.org.