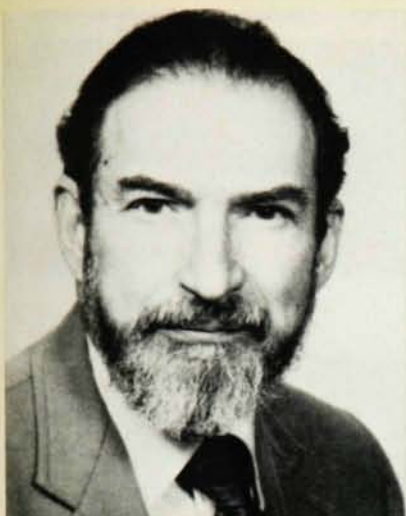




DYER

he has been a professor of physics since 1960. He served as liaison scientist with the Office of Naval Research in London in 1961-62 and was editor of *European Scientific Notes* in 1962. He has been owner of Ocean Acoustics Associates in Pebble Beach, California, since 1980.

Medwin's early research was in finite-amplitude effects such as shock-wave propagation and acoustic streaming. Later he developed acoustical methods for determining the number densities of microbubbles at sea. Since about 1970 he has constructed labora-

tory scale models and computer models to calculate sound scattering from ocean boundaries.

Ward, a specialist in psychoacoustics, earned a BS in physics at the South Dakota School of Mines and Technology in 1944 and a PhD in experimental psychology at Harvard in 1953. He worked as a research engineer at Baldwin Piano in 1953-54 and as a research scientist at the Central Institute for the Deaf in 1954-57. From 1957 to 1962 he was a research associate with the subcommittee on noise of the Committee on the Conservation of Hearing, American Academy of Ophthalmology and Otolaryngology. He has been a professor of otolaryngology and communication disorders at the University of Minnesota since 1962.

Ward has been concerned all his life with noise-induced hearing loss and its prediction. His laboratory and fieldwork has had practical applications in industrial health and safety. He also has conducted research on musical perception.

Stanley L. Ehrlich, a consulting engineer with the submarine-signal division of Raytheon Company, and Alice H. Suter, a consultant in industrial and community noise, joined the ASA executive council this year. Paul Ostergaard of Ostergaard Associates in Caldwell, New Jersey, and Robert C. Spindel of Woods Hole Oceanographic Institute joined last year.

NRDC in USSR to verify nuclear tests

The US and Soviet governments, despite their guarded and ambiguous positions on arms control, have acted with remarkable speed and decisiveness to permit implementation of the agreement on test-ban verification negotiated by the Natural Resources Defense Council and the Soviet Academy of Sciences in May (PHYSICS TODAY, July, page 63).

The US Commerce Department issued export licenses for the first batch of equipment that NRDC wanted to transfer to the Soviet Union just six days after NRDC's initial application, and by the end of June a team of US scientists headed by Jim Brume of the Scripps Institution of Oceanography was in the Soviet Union setting up surface seismometers at two locations—Karkaralinsk, which is about 200 kilometers west of the Soviet test site, and Bayanaul, 100 km north of Karkaralinsk. A third station, which will be on the other side of the test site, remained to be selected.

According to Tom Cochran, the NRDC physicist who hatched the idea of the verification agreement last January, nothing in the first batch of

equipment was terribly sensitive politically. It was all "off-the-shelf equipment," he says, and besides, it would remain under the control of US scientists at the Soviet stations.

NRDC has ordered down-hole seismometers from Teledyne Geotech in Texas, which are to be installed in the Soviet Union and United States during the next phase of the verification program, beginning, it is hoped, toward the end of this year. The Teledyne equipment is in use both in the United States and overseas, Cochran says, and so its transfer should not be problematic. The more sensitive export applications will be for microprocessors and digital recorders.

Even if all the equipment gets through and into place, the Soviets will not collect any substantial data from the US test site that are not already available in published US sources, according to Cochran. While it is clear that the Soviets want to demonstrate that verification is no obstacle to a test-ban agreement, he says, Soviet scientists "actually are more interested in building a research program around earthquake analysis" than in the

science of test verification as such.

In addition to having won the cooperation of the Soviet and US governments, NRDC has raised money to support the verification program with remarkable ease. Money from private donors has been forthcoming, and the MacArthur, the Carnegie and probably the Ford Foundation are expected each to contribute \$200 000.

—WILLIAM SWEET

Electrical engineer is new British science adviser

Around the same time that President Ronald Reagan nominated a new science adviser (PHYSICS TODAY, July, page 45), the top government science job turned over in Britain as well. What is striking in both countries is that those striding the corridors of power are no longer top scientists. In recent years British prime ministers seem unwilling or unable to appoint boffins with the stature of Frederick Lindemann (later known as Lord Cherwell), Hermann Bondi or Sir Solly Zuckerman.

So, when Prime Minister Margaret Thatcher named Sir Robin Nicholson, a metallurgical engineer, to the cabinet-office position in 1983, many research scientists were disgruntled. After Nicholson left last January to join Pilkington Brothers, the big glass manufacturer (PHYSICS TODAY, February, page 67), scientists hoped Thatcher would choose a prominent academic. Instead, on 1 May the post went to John Fairclough, an electrical engineer who spent the last 27 years at IBM (UK).

"My background is making money out of technology," Fairclough told us. At IBM he helped develop the successful System-360 computer and worked as a marketing director. Since 1974 he has been responsible for R&D and manufacturing in Britain, where IBM has laboratories employing about 2000 scientists and technicians and factories with 5000 workers. For the past two years he has pumped IBM money into British universities through a program that provides free computing time to teachers and students to upgrade skills and research. Among the beneficiaries are engineering departments at Cambridge and Imperial College as well as the politics, philosophy and economics departments at Oxford.

Fairclough has no illusions about the power and glory of his new post. As Sir Robin had found before him, the job of cabinet science adviser is only as influential as the prime minister wants it to be. He has no funds to give even the most worthy school or scientist. He carries no civil-service grade and in fact continues to be paid his usual salary by IBM, which has seconded him to 10

Downing Street for two years.

Despite fears of scientists that he will concentrate on technology while ignoring basic research, Fairclough argues that academic science is rapidly becoming over-diluted with development work supported by military and commercial interests, at the expense of new theories and more knowledge to improve the future base of science and technology.

Using IBM as his model, he wants to separate fundamental research at universities and government laboratories from development and production. Fairclough says research should be the responsibility of scientists, who work best in small groups, while development usually requires large groups accountable to project managers all the way to the marketplace.

—IRWIN GOODWIN

Weymann is new director of Mount Wilson—Las Campanas

Ray J. Weymann became director of the Carnegie Institution's Mount Wilson and Las Campanas Observatories on 1 July. He replaced George Preston, who had served as director since 1980.

As director of the Mount Wilson and Las Campanas Observatories, Weymann will supervise planning for the construction of a proposed 8-meter telescope to be built at the Las Campanas installation in Chile.

Weymann received a BS from Caltech in 1956 and a PhD in astronomy from Princeton in 1959. He was a research fellow at Caltech from 1959 to 1961, when he moved to the University of Arizona. He has been a full professor at Arizona since 1967, and from 1970 to 1975 he was director of the university's Steward Observatory. He played a key role in the construction of the Arizona-Smithsonian multiple-mirror telescope on Mount Hopkins.

Advance abstracts available to Third World physicists

In an effort to make physics publications more widely available in the Third World, the AIP executive committee has voted to make *General Physics Advance Abstracts* available free of charge to physicists in developing countries. The APS executive committee has decided to make *Physical Review Abstracts* available as well. *General Physics Advance Abstracts* provides prepublication abstracts of articles that appear in some 40 AIP and member-society journals. *Physical Review Abstracts* contains advance abstracts of material that is to appear in *Physical Review*, *Physical Review Letters* and *Reviews of Modern Physics*.



A workman at Lancaster Press in Lancaster, Pennsylvania, helps fill orders for back issues of AIP, APS and other member-society journals that were made available to physicists for the cost of packing and shipping. Between November 1984, when a notice about the offer of free journals appeared in *PHYSICS TODAY*, and spring of this year, AIP received 170 orders for more than 150 000 journal issues. In addition, almost 40 000 journals were sent to the Chinese Ministry of Education and the Chinese Academy of Sciences.

Physicists from developing countries who are members of AIP member societies are eligible for the free subscriptions; unaffiliated Third World physicists can obtain gratis subscriptions with the endorsement of a member-society member.

Applications for free subscriptions should be addressed to John DiCaro, Subscription Fulfillment Division, AIP, 335 East 45th Street, New York NY 10017.

in brief

IBM has announced the names of 12 universities that will receive \$24 million in cash and equipment from IBM for research and teaching in the materials and processing sciences (*PHYSICS TODAY*, March 1985, page 114). The institutions are Brown, Carnegie-Mellon, Columbia, Cornell, MIT, Pennsylvania State University, University of Chicago, University of Illinois (Urbana-Champaign), University of Massachusetts (Amherst), University of Minnesota (Minneapolis), University of Pennsylvania and University of Washington.

The Israeli government has concluded an agreement with the US government permitting Israeli scientists

and research organizations to do contractual work for the Strategic Defense Initiative Organization. Israel is the third country, after the UK and West Germany, to conclude such an agreement. The Israelis are reported to be especially interested in work on defenses against short-range missiles.

The new Center for Earth Observation and Remote Sensing at the University of Colorado, Boulder, has received a grant of \$650 000 from the W. M. Keck Foundation for equipment and staff. The director of the new center is Alexander Goetz, who previously was with the Jet Propulsion Laboratory. The Keck Foundation, based in California, is one of the nation's biggest and most important donors to science, engineering and medicine. *Annales Geophysicae*, the official publication of the European Geophysical Society, has been split into two series: *Series A—Upper Atmosphere and Space Sciences*, and *Series B—Terrestrial and Planetary Physics*. *Annales Geophysicae* was founded in 1983.

Springer-Verlag has divided *Zeitschrift für Physik A* into two parts: *Zeitschrift für Physik A*, with the subtitle "Atomic nuclei," and *Zeitschrift für Physik D*, with the subtitle "Atoms, molecules and clusters." □