

years. Even government ministers and heads of French scientific and industrial organizations, alerted to the vacuum society's plight, were unable to sway the Cannes official.

And so the conference went on, with most of the speakers and exhibitors choosing to remain in Cannes and stick it out. Monday, the first day of sessions, was chaotic. Although busses to take the participants to and from the conference were provided, as were an open bar and restaurant, there were electrical malfunctions, the weather was particularly hot and humid, and the tents were unventilated and crowded. But soon temperatures and temperatures cooled, blowers were set up in the tents, and everyone began to see the lighter side of the situation. By Tuesday, the conference was running fairly smoothly. John Bertucci, who represented MKS Instruments at the exhibit, told us.

Nonetheless, various legal and other actions are in the works. The French Vacuum Society is filing a class action suit for breach of contract against the town of Cannes. The American Vacuum Society has registered a protest with the US embassy in Paris. Because the exhibitors' contracts were with the French Vacuum Society, some are considering suing the Society. And IUVSTA will ask IUPAP and IUPAC for an official boycott of Cannes for all future meetings. —MEJ

NSF physics division staff and advisers

Val L. Fitch of Princeton University (see page 17) assumed the chairmanship of the NSF Advisory Committee for Physics on 1 July. Fitch was elected by the Committee's members after Chairman Peter Carruthers (Los Alamos) announced that he was stepping down from the post. Three new members will be selected by January. The remainder of the membership includes J. A. Armstrong (IBM), Robert A. Eisenstein (Carnegie-Mellon University), Hans E. Frauenfelder (University of Illinois, Urbana), Anne Kernan (University of California, Riverside), Neal Lane (Rice University), Claire E. Max (Lawrence Livermore Laboratory), William H. Press (Harvard College Observatory) and Robert G. Stokstad (Oak Ridge).

The NSF Advisory Committee for Physics makes recommendations directly to the head of the Directorate for Mathematical and Physical Sciences, William Klemperer, as well as to the NSF Division of Physics. These recommendations arise from the Committee's review of the Foundation's actions regarding physics, its oversight of major project planning and its mediation of

the financial support afforded to the various physical subfields.

Richard Deslattes, chief of the quantum metrology group at the National Bureau of Standards and a senior research fellow there, was recently appointed acting director of the physics division. Deslattes replaced Neal Lane, who completed his one-year appointment to that post and has now returned to Rice University, where he was chairman of the physics department. Deslattes and Lane are filling in for Marcel Bardon, who is on leave serving as science attaché to UNESCO, and is expected back in August.

Also in the physics division, David Berley has replaced Alexander Abashian (who has gone to Virginia Polytechnic Institute and State University) as elementary-particle physics program director; Richard Heins replaced Gaurang Yodh (who returned to the University of Maryland) as elementary-particle physics program officer; Robert Hill replaced Laird Schearer (who returned to the University of Missouri, Rolla) as atomic, molecular and plasma-physics program officer, and Jeffrey Mandula has replaced Boris Kayser (who is on leave at SLAC until September) as theoretical-physics program director.

Centers to fund academic-industrial research

A bill that authorizes \$285 million between Fiscal Years 1981 and 1985 to establish industrial technology centers at universities was signed by President Carter in October. The law, known as the Stevenson-Wydler Technology Innovation Act of 1980, also establishes an Office of Industrial Technology in the Department of Commerce. Carter vowed to initiate what he called "generic technology centers" last year as part of his proposals for stimulating industrial innovation (PHYSICS TODAY, January 1980, page 119).

The National Science Foundation and the Commerce Department are to set up Centers for Industrial Technology at universities or other nonprofit institutions. The Centers will sponsor joint industry/academe research on generic technologies, in which individual firms have little incentive to invest, but which may have significant economic or strategic importance, such as manufacturing technology. The centers are also to provide assistance and advice to individuals and industries, particularly small businesses. Under the act, at least 25% of each center's funding will come from industry, and the centers will be expected to become, ultimately, either self-sustaining or totally industry-supported. Each center will have the option of acquiring title to any

invention conceived or made there, provided the Center intends to promote commercialization of the invention.

The Commerce Department has already issued regulations and requests for proposals for the centers. Welding and joining, tribology and powder metallurgy are the first three generic technologies selected to receive support.

Although Congress and the Carter administration agree on the need for such industrial centers, industry itself is not so enthusiastic. The Industrial Research Institute, for example, has issued a statement saying that it is wary of such centers, "since there is a significant risk that such laboratories may become a self-perpetuating drain on national resources and lack the necessary inputs on market needs and opportunities to be an effective force in the innovation process."

In addition to the Office of Industrial Technology, the bill establishes a National Industrial Technology Board, made up of 15 members, to review the activities of that Office, a Center for the Utilization of Federal Technology within the Commerce Department, to serve as a central clearinghouse for the transfer of information about Federally owned technologies to state and local governments and private industry, and requires each Federal laboratory to form a Research and Technology Applications Office to ensure full use of the results of the Federal R&D investment.

The Act authorizes \$24 million for FY 1981 and a total of \$261 million for the following four years. —MEJ

in brief

Stanford University plans to establish a research facility dedicated to the design and development of very large-scale integrated circuit systems. Sixteen million dollars, mostly from government and industry sources, will fund a 60 000 square-foot building and computer design automation and circuit fabrication equipment.

A fund for extragalactic research has been set up at the University of Texas at Austin using proceeds from the sale of 19 acres of land donated to the University by Gerard de Vaucouleurs, a professor of astronomy there, and his wife.

The National Science Foundation has announced the establishment of the Vannevar Bush Award to be presented to "a senior statesman of science and technology" for an outstanding contribution to science and technology through public service. The Bush Award will be given sporadically and will carry no monetary stipend. Bush was largely responsible

for the establishment of the NSF 30 years ago.

The Committee of the 11th Fritz London Memorial Award in Low-Temperature Physics invites nominations of appropriate recipients of the Award. Names of nominees must be accompanied by appropriate supporting statements and should be submitted to the chairman of the Committee, Horst Meyer, Department of Physics, Duke University, Durham, N.C. 27706 before 1 February. In January the Graduate School of Patent Resources, Washington, D.C., will offer classes in a program lead-

ing to an MS in patent practice and for some, to a license to practice as a patent agent. Those desiring information should write The Graduate School, Patent Resources Institute, PO Box 19302, Washington, D.C. 20006.

The International Union for Vacuum Science, Technique and Applications has developed a Visual Aids Project for use in teaching vacuum technology and its applications. The five parts of the series are: Fundamentals of vacuum; vacuum measurement and gauges; gas transfer pumps; residual gas analyzers and

capture pumps, and vacuum deposition. Each part consists of a booklet and accompanying slides and the series is available as a complete set, for £140 or as individual parts from the IUUVSTA Secretariat, 47 Belgrave Square, London SW1X 8QX, UK.

An evaluation of one of the National Science Foundation's efforts to increase the participation of women in science and engineering careers, *Reentry Programs for Female Scientists: Final Report*, has now been published. It is available for \$18.95 from Praeger Publishers, 521 Fifth Ave., New York, N.Y. 10017.

AIP directory and graduate programs books

The American Institute of Physics has published the 1980-81 editions of the *Directory of Physics and Astronomy Staff Members* and *Graduate Programs in Physics, Astronomy and Related Fields*.

The 420-page *Directory* lists more than 30 000 personnel at over 3000 physics- and astronomy-related institutions in North America. This year's *Directory* has one-third additional coverage of the staffs of industrial and not-for-profit research centers as well as many new listings for Canadian Government laboratories. Copies cost \$49.00 prepaid.

The *Graduate Programs* book contains entries for 296 departments in the US, Canada and (now for the first time) Mexico that offer graduate degrees in physics, astronomy, applied physics, materials science, atmospheric science, geophysics, medical physics, nuclear and aerospace engineering and other fields. It is available for \$12.50 prepaid (or \$7.50 for students).

Both publications may be ordered from Back Numbers, AIP, 335 East 45th Street, New York, N.Y. 10017.

OSA establishes award in honor of Charles Townes

The Optical Society of America has established a new award in honor of Charles Hard Townes, a pioneer in the field of masers, lasers and quantum electronics in general. The announcement of the award took place during the Townes Ceremonial Session at the June International Quantum Electronics Conference in Boston.

The Townes Medal will include a \$1000 prize as well as a silver medal. It will be awarded annually starting in 1981 to recognize "distinguished contri-



TOWNES

butions to the field of quantum electronics through outstanding experimental or theoretical work, discovery, or invention." Bell Laboratories is sponsoring the new OSA award.

Townes, who is University Professor of Physics at the University of California, Berkeley, won the 1964 Nobel Prize in physics for fundamental work that led to the construction of oscillators and amplifiers based on the maser-laser principle.

Strassenburg is elected Sigma Pi Sigma president

The Society of Physics Students has reelected Arnold A. Strassenburg to a two-year term as president of Sigma Pi Sigma, the physics honor society. Strassenburg is professor of physics at the State University of New York at Stony Brook and executive officer of the American Association of Physics Teachers.

Appointed to a two-year term as at-large member of the SPS executive

committee was R. Charles Ivey, professor of physics and chairman of the department of physics at Abilene Christian University. In addition to Strassenburg and Ivey, the executive committee membership includes Hla Shwe, president of the SPS Council; H. William Koch, director of AIP; Dion W. J. Shea, director of SPS, and John K. Moyla, SPS Associate Councillor Representative.

Four physics faculty members were elected to three-year terms as national councillors: William W. Edison (Drexel University), Zone 3; Bernard D. Kern (University of Kentucky), Zone 5; George K. Miner (University of Dayton), Zone 7, and Larry V. Knight, (Brigham Young University), Zone 11.

AIP television news spots cover astronomy

The American Institute of Physics Public Information Division has released the third installment in its Science Television News Series. The new group of five 90-second astronomy news spots focuses on topics such as the Solar Maximum Mission and International Ultraviolet Explorer satellites, the evolution of stars and galaxies, and double quasars. The news features are intended for use by local television stations in their daily newscasts.

Both of the earlier news feature series, the first on medical physics and the second on energy, have met with considerable acceptance among television stations across the country. Forty-eight stations have reported using the medical physics series and at least as many have made use of the energy series.

Science Television News was made possible by a \$141 000 grant to AIP from the National Science Foundation's Public Understanding of Science program. □

the physics community