

Capitol Conference Focuses on Technologies for Disabled People

Three days of activities brought to Washington many prominent disabled people, designers and manufacturers of devices for the disabled, and persons responsible for administering programs dealing with disabled individuals.

"The Capitol Conference on Technology and Handicapped People" focused attention on how these devices are designed, evaluated, and marketed and pointed to ways of improving the system. The conference opened 29 September with a special joint hearing before the U.S. Senate Committee on Labor and Human Resources and the U.S. House Committee on Science and Technology, Subcommittee on Science, Research, and Technology. The hearing was called to respond to the Office of Technology Assessment's (OTA) report, "Technology and Handicapped People."

Testimony was presented under the several subject areas of the OTA report, including research, development, and evaluation of technologies; financing; and consumer participation. One member of the consumer panel, Margaret C. Pfrommer, research associate and consumer advocate, Northwestern University Rehabilitation Engineering Center, and president, Illinois Congress of Organizations of the Physically Handicapped, called for inclusion of disabled persons in the design and evaluation process.

"... Professionals working with technical products and services must have contact with the population of persons with disabilities," said Pfrommer. "On-going feedback from the consumer can keep all activities on track and prevent waste. Better products and services are obtained when they are evaluated by consumers under their own life circumstances and on their own terrain."

James Renuk, a graduate research associate in John Eulenberg's Artificial Language Lab at Michigan State University, used a computer-based voice output communication aid (VOCA) to address the hearing. This was the first time that a voice-impaired person had given testimony in Congress using such a device. Eulenberg emphasized the importance of establishing an appropriate delivery sys-

tem, involving partnerships with industry. A customized device such as the one Eulenberg designed for Renuk can cost upwards of \$15,000 per system. Through coordination with industry prices can be dramatically reduced. He cited the recent introduction by Texas Instruments of "Vocaid," a battery-powered device with a limited vocabulary which sells for about \$150.

Oral O. Miller, representing the American Council of the Blind, told legislators that adapting technologies currently in existence to the needs of the disabled could save time and money. He gave as examples the wide use, by blind people, of cassette tape recorders, microcassettes, and the Apple II Plus computer which, for a relatively small amount of money, can be equipped to "talk."

Following the hearings, participants and the general public attended an exhibit, arranged by AAAS, of technologies for disabled people. Included among the displays were omnidirectional wheelchairs, a computerized voice synthesizer, reading machines, and new prosthetic devices.

Special guests at the conference were John Linvill, professor of integrated systems and a director, Center for Integrated Systems at Stanford University; Marjorie Linvill, president of the board of trustees, Sensory Aids Foundation; and Candace Linvill Berg, clinical psychologist, Permanente Medical Group. John Linvill developed the Optacon reading aid for the blind; Marjorie Linvill served as a "parental motivator"; and Candace Linvill Berg (their daughter) served as a principal blind experimenter with the Optacon program, using it throughout her college and graduate studies. In an after-dinner presentation each related her or his own experiences as the Optacon came to fruition.

On Thursday and Friday (30 September and 1 October), conference participants came together to focus their attention on realistic goals aimed at improving the development, evaluation, marketing, and financing of technologies for disabled people. After grouping lists of ideas into major areas of concern, each

individual wrote a personal action plan.

Among the individual action plans are those of an industry representative who will work to encourage other industries to become involved in the development of technologies for the disabled; the director of an organization which helps provide devices for disabled people who will go out to employers and explain to them how adaptations and aids could make it possible for them to hire more disabled workers; and a disabled scientist who will prepare a talk to deliver to local citizens' groups illustrating ways in which disabled people can more fully participate in a variety of activities.

At the final conference session Martha Ross Redden, director of the AAAS Project on the Handicapped in Science, thanked participants for the work they had accomplished during the 3 days and for their commitment to continuing that work through implementation of their personal action plans.

Cosponsors of the Capitol Conference on Technology and Handicapped People, along with the AAAS, were the Office of Technology Assessment; President's Committee on Employment of the Handicapped; Rehabilitation Engineering Center, University of Virginia; U.S. House Committee on Science and Technology, Subcommittee on Science, Research, and Technology, Doug Walgren (D-Pa.) chair; and U.S. Senate Committee on Labor and Human Resources, Orrin G. Hatch (R-Utah) chair.

For further information on the work of the Project, write to the Project on the Handicapped in Science, 1776 Massachusetts Avenue, NW, Washington, D.C. 20036 or call 202-467-4497.

JOAN WRATHER
Office of Communications

Arctic Division Meeting

The annual meeting of the Arctic Division of AAAS, the "Alaska Science Conference," held in Fairbanks, 16-18 September, attracted more than 600 people. Nearly 300 papers were presented on topics ranging from pure mathematics to arctic sewer systems. Highlights included a Navy-sponsored symposium on "Human Performance in the Cold" and a North Slope Borough sponsored symposium on "Appropriate Energy Technology for Arctic Regions."

Canadian participation was excellent. The Science Advisory Board of the Northwest Territories held one of its semiannual meetings during the Division meeting. A symposium on Alaska and U.S. Arctic Science Policy brought concerned advisory boards, representatives from the petroleum industry, and the general public together.

The next annual meeting of the Division will be in September 1983 in Whitehorse, Yukon Territory. We are particularly anxious to strengthen our ties with Canada, since many of our science-related concerns are identical to those of the Yukon and Northwest Territories.

GUNTER E. WELLER
Executive Secretary, Arctic Division

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Obituaries

Arthur M. Arkin of New York, New York, member of Section H (Anthropology) since 1963, 25 May 1982.

Julius Ashkin, professor of physics, Carnegie-Mellon University, member of Section B (Physics) since 1961, 4 June 1982.

G. H. Ball of Los Angeles, California, member of Section G (Biological Sciences) since 1924, 7 August 1982.

Hendrik W. Bode of Cambridge, Massachusetts, member since 1979, 2 June 1982.

William Bollay of Santa Barbara, California, member of Section M (Engineering) since 1943, 2 June 1982.

Spencer G. Bradford, director, Division of Special and Continuing Medical Education, Philadelphia College of Osteopathic Medicine, member of Section N (Medical Sciences) since 1946, 15 August 1982.

Stewart S. Cairns of Urbana, Illinois, member of Section A (Mathematics) since 1934, 28 June 1982.

William H. Corcoran of San Gabriel, California, member of Section M (Engineering) since 1969, 21 August 1982.

Haskell Brooks Curry, Evan Pugh Research Professor of Mathematics Emeritus, Pennsylvania State University, member of Section A (Mathematics) since 1960, 1 September 1982.

Albert Dorfman, professor of pediatrics, University of Chicago, member of Section C (Chemistry) since 1967, 27 July 1982.

Howard McKee Elsey of Oakmont, Pennsylvania, member of Section C (Chemistry) since 1918, 27 June 1982.

Max Engelhart of Durham, North Carolina, member of Section J (Psychology) since 1962, 30 June 1982.

C. Eugene Farnsworth of Syracuse, New York, member since 1980, 2 July 1982.

J. W. Finn of Mount Clemens, Michigan, member of Section N (Medical Sciences) since 1979, 11 July 1982.

Ira Goldenberg, Department of Surgery, Yale University School of Medicine, member of Section N (Medical Sciences) since 1947, 31 July 1982.

Ralph E. Heal of Oxford, Maryland, member of Section G (Biological Sciences) since 1976, 27 August 1982.

Esther D. Hoelzel of Chicago, Illinois, member of Section N (Medical Sciences) since 1940, 20 June 1982.

Dean S. Hollister of Ithaca, New York, member of Section M (Engineering) since 1935, 6 July 1982.

Arthur B. Hook of Clifton, Virginia,

member of Section B (Physics) since 1970, 23 June 1982.

George Mathew Kanapilly, supervisor, Aerosol Science Group, Lovelace Inhalation Toxicology Research Institute, member of Section C (Chemistry) since 1970, 14 July 1982.

Robert Knowles of Huntington Beach, California, member since 1978, 5 August 1982.

William Krag of Lexington, Massachusetts, member of Section B (Physics) since 1969, 26 August 1982.

Karl A. Lesins, Department of Genetics, University of Alberta, member of Section G (Biological Sciences) since 1967, 2 July 1982.

Vivian Ernst-Levin, assistant professor, biochemistry, Brandeis University, member since 1982, 12 September 1982.

Joseph D. Mitchell, Jr., of Dallas, Texas, member of Section N (Medical Sciences) since 1970, 2 May 1982.

Kelso B. Morris, professor emeritus of chemistry, Howard University, member of Section C (Chemistry) since 1942, 26 August 1982.

Kalambur Sk. Murthy, Division of Neurosurgery, University of Texas School of Medicine, member of Section N (Medical Sciences) since 1974, 4 June 1982.

Robert C. Pendelton, Department of Radiological Health, University of Utah, member since 1977, 10 July 1982.

J. O. Pinkston of Staunton, Virginia, member of Section N (Medical Sciences) since 1938, 24 June 1982.

Edward W. Seeger of Carson City, Nevada, member since 1982, 9 June 1982.

Martha W. Shackleford of Chickasha, Oklahoma, member of Section G (Biological Sciences) since 1962, 7 September 1982.

Ismail N. Shimi, U.S. Air Force Office of Scientific Research, member of Section U (Statistics) since 1978, 3 August 1982.

Richard C. Talamo, professor of pediatrics, Tufts New England Medical Center, member of Section N (Medical Sciences) since 1973, 23 July 1982.

Chauncey G. Tillman, Virginia Polytechnic Institute and State University, member of Section E (Geology and Geography) since 1963, 7 May 1982.

John S. Wahl of Ridgefield, Connecticut, member of Section B (Physics) since 1969, 11 August 1982.

John W. Weigl of Webster, New York, member of Section C (Chemistry) since 1948, 1 August 1982.

Vladimir Zworykin of Princeton, New Jersey, member of Section B (Physics) since 1934, 3 August 1982.