1992 • Science and Technology Issues in Coastal Ecotourism • U.S. Banks and International Telecommunications • Genetic Tests and Health Insurance: Results of a Survey • Federal and Private Roles in the Development and Provision of Alglucerase Therapy • Difficult-to-Reuse Needles for the Prevention of HIV Infection Among Injection Drug Abusers • U.S.-Mexico Trade: Pulling Together or Pulling Apart • Genetic Counseling and Cystic Fibrosis Carrier Screening: Results of a Survey & Green Products by Design: Choices for a Cleaner Environment & Monitoring limits on sea-launched cruise missiles & Does health insurance make a difference? The Biology of mental disorders + Special care units for people with alzheimer's and other dementias; consumer education, research, regulatory, and reimbursement issues • Police body armor standards and testing • A New technological era for American agriculture • Cystic fibrosis and DNA tests; implications of carrier screening • The CDC's case definition of AIDS; implications of the proposed revisions • Retiring old cars; programs to save gasoline and reduce emissions . Building future security: strategies for restructuring the defense technology and industrial base . Disposal of chemical weapons: alternative technologies * Lessons in restructuring defense industry: the French experience Identifying and controlling pulmonary toxicants * Combined summaries: technologies to sustain tropical forest resources and biological diversity . Trade and environment: conflicts and opportunities . The of therapy under Medicare . Building energy efficiency . Finding a balance: Menopause, hormone therapy, and women's health ge Fight de eligh nt: energy technologies for developing countries is for title ruture. Forest service planning: accommodating uses, producing computer software, intellectual property and the · Annual report to the Congress, fiscal year 1991 outputs, and sustaining ecosystems • Performance standards for the Food Stamp Employment and Training Program • Managing industrial solid wastes from manufacturing, mining, oil and gas production, and utility coal combustion. Testing in American schools: asking the right questions. After the cold war: living with lower defense spending. To hardle special productions to provide a program of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of space science and applications to produce the production of the production of space science and applications are production of space science and applications to produce the production of the production of space science and applications are productions. with lower defense spending. To the lower against services the control of space science and applications to the control of space science and applications to the control of space science and applications of space science and applications of spaces. Adolescent had a solume II: background and effectiveness of selected prevention and treatment services. Miniaturization technologies • The FBI fingerprint identification automation program: issues and options • The 1992 World administrative radio conference: Scherical mannography in primary care settings: implications for cost, was proach's Smerican military power: future needs, future choices and levitated vehicles • U.S. Oil import vulnerability: the oil replacement issues for U.S. international spectrum policy . HIV in the health care workplace access, and quality • Improving Automobile Fuel Economy: New Starters, Ne Biotechnology in a global economy • New Ways: tiltrotor aircraft and magnetical capability . Medical monitoring and screening in the workplace: results of a survey . Competing economies: America, Europe, and the Pacific Rim . Outpatient immunosuppressive drugs under Medicare • Biological rhythms: implications for the worker • New opportunities for U.S. universities in development assistance: agriculture, natural resources, and environment . Verification technologies: cooperative aerial surveillance in international agreements . Redesigning defense: planning the transition to the future U.S. defense industrial base • Energy technology choices: shaping our future • Exploring the Moon and Mars: choices for the nation • Technology against terrorism: the federal effort • Automated record checks for firearm purchasers: issues and options • Global arms trade: commerce in advanced military technology 1993 ahead: 1991 surface transportation legislation • Adolescent health—vol III: crosscutting issues in the delivery of health and related services • Agricultural commodities as industrial raw materials • Long-lived legacy: managing high-level and transuranic waste at the DOE nuclear weapons complex . Bioremediation for marine oil spills . Energy efficiency in the Federal government: government by good example? • Verification technologies: managing research and development for cooperative arms control monitoring measures • U.S. Dairy industry at a crossroad: biotechnology and policy choices • Identifying and controlling immunotoxic substances • Delivering the goods: public works technologies, management and financing . Rural America at the crossroads: networking for the future . Adolescent health, volume I: summary and policy options . Federally funded research: decisions for a decade . Annual Report to the Congress, Fiscal Year 1990 . Seeking solutions: highperformance computing for science . Adjusting to a new security environment: the defense technology and industrial base challenge . Summary: Technology against terrorism: the federal effort • Complex cleanup: the environmental legacy of nuclear weapons production • Changing by degrees: steps to reduce greenhouse gases . Energy in developing countries . Verification technologies: measures for monitoring compliance with the START treaty . Beneath the bottom line: agricultural approaches to reduce agrichemical contamination of groundwater . Children's dental services under the Medicaid program · Genetic monitoring and screening in the workplace · Orbiting debris: a space environmental problem · Finding the Rx for managing medical wastes . Neural grafting: repairing the brain and spinal cord . The Use of integrity tests for pre-employment screening . Electronic bulls and bears: U.S. securities markets and information technology . Worker training: competing in the new international economy . Costs and effectiveness of colorectal cancer screening in the elderly Replacing gasoline; alternative fuels for light-duty vehicles. The Effectiveness of drug abuse treatment; implications for controlling AIDS/HIV infection . Unconventional cancer treatments . Health care in rural America Nonferrous metals; industry structure . Confused minds, burdened families; finding help for people with alzheimer's and other dementias . Genetic witness; forensic uses of DNA tests . Evaluating defense department research · Trading around the clock: global securities markets and information technology · Helping America compete: the role of federal scientific and technical information . Royalty management program's auditing and financial system: technical issues . Plague of locusts . Forest service planning: setting strategic direction under RPA*Physical Vulnerability of Electric Systems to Natural Disasters and Sabotage * Big picture: HDTV and high-resolution systems *Energy use and the U.S. economy . Arming our allies: cooperation and competition in defense technology . Recombinant erythropoietin: payment options for Medicare · Access to space: the future of U.S. space transportation systems · Neurotoxicity: identifying and controlling poisons of the nervous system · How has federal research on AIDS/HIV disease contributed to other fields? * High-temperature superconductivity in perspective * Proposal pressure in the 1980s: an indicator of stress on the federal research system . Rebuilding the foundations: state and local public works financing and management . Agricultural research and technology transfer policies for the 1990s • Computer software and intellectual property • Coping with an oiled sea • Unrelated bone marrow transplants in the United States: policy issues from a patient perspective . Making things better:competing in manufacturing . Preventive health services for medicare beneficiaries: policy and research issues • Critical connections communication for the future • Costs and effectiveness of cervical cancer screening • Holding the edge: maintaining the defense technology base, Vol. 2: appendixes • Indian adolescent mental health • Affordable spacecraft design and launch alternatives • Summary of the situation at the Brio refining superfund commercial low-level radioactive waste • Linking for learning: a new ducation • Federal scientific and technical information in an electronic age; opportunities and challenges • Containment of underground numbers of the second of the situation and the Brio refining superfund emergency medical services • Partnerships under pressure:managing commercial low-level radioactive waste • Linking for learning: a new ducation • Federal scientific and technical information in an electronic age; opportunities and challenges • Containment of underground numbers of the second of the next for municipal solid waste? . Advanced vehicle/highway systems and home copying: technology challenges the law . Facing America nce · Statistical needs for a changing U.S. economy · Review of the and urban traffic problems . High performance computing and netwo submation, relocation and consolidation of activities at certain facilities in the Department of Energy modernization plan: issues surrounding the propo Department of Energy nuclear weapons complex - Analysis of selected mobile source provisions in H.R. 3030 and H.R. 2323 • Polar prospects: a minerals treaty for Antarctica • Round trip to orbit: human space of the control o an evaluation of foreign maritime activities in the 200-mile EEZ • Defining rural preas: impact on health care policy and research • Analyses of trends in coverage and preliminary estimates of the effects Congress of the effects of power frequency electric and magnetic fields · Analysis of the range of institutional options available to house a proposed National Center for Biological Diversity and Conservation Research . Electric power wheeling and dealing: technological considerations for increasing competition . Technologies for reducing dioxin in the manufacture of bleached wood pulp * Assessment of the Veterans Administration's method of analyzing its hospital mortality * New developments in biotechnology 5: patenting life * Holding the edge: maintaining the defense technology base * Costs and effectiveness of cholesterol screening in the elderly

Program

OTA FORUM ON TECHNOLOGY AND GOVERNANCE IN THE 1990s ROOM SD-106, DIRKSEN SENATE OFFICE BUILDING U.S. CONGRESS, WASHINGTON, DC

PRESIDING FOR THE MORNING SESSION

Congressman George E. Brown, Jr.

Technology Assessment Board

PRESIDING FOR THE AFTERNOON SESSION

Congressman Don Sundquist

Technology Assessment Board

8:30 am Welcome and Opening Remarks

9:00 am INTERNATIONAL SECURITY

> The Honorable Robert S. McNamara Former U.S. Secretary of Defense Former President, The World Bank

Introduced by

Senator Edward M. Kennedy

10:15 am Break

10:30 am SUSTAINING THE GLOBAL

ENVIRONMENT

The Honorable Gro Harlem Brundtland

Prime Minister of Norway

Leader of Minority Labor Government

Chair, World Commission on

Environment and Development

Introduced by

Congressman Amo Houghton, Jr.

11:45 am Break

COM. DON SUNDQUIST Presided

ECONOMIC COMPETITIVENESS 1:15 pm IN AMERICA

Dr. Laura D'Andrea Tyson

Chair-designate of the President's Council of Economic Advisors

Introduced by

Congressman John D. Dingell

HNOLO2:30 pm **HEALTHCARE**

Dr. Arnold S. Relman

Professor of Medicine and of

Social Medicine

Harvard School of Medicine

Editor-in-Chief Emeritus

New England Journal of Medicine

Introduced by

Senator Ted Stevens David Durenberger

EVEW TAB Hember

3:45 pm **Break**

4:00 pm **EDUCATION**

Mr. Derek Bok

President Emeritus of Harvard University

Introduced by

Senator Orrin G. Hatch

Close 5:15 pm

5:30 pm RECEPTION

Dirksen Senate Office Building

Room SD-G50

Background

Congress created OTA to demystify the roles of science and technology in governance—to gain access to specialized information. The intention was to arm our citizen governors with what James Madison called "the power that knowledge gives."

OTA is now in its 20th year. Technology's influence has grown and governance faces major challenges at home and abroad. The agency is well-positioned to lead an examination of key sociotechnical issues of the coming decade and the institutional mechanisms to link technology assessment to policy decisions. Accordingly, OTA's Congressional Technology Assessment Board is hosting this one-day Forum on Technology and Governance in the 1990s for members of Congress and key congressional staff.

OTA, an analytical support agency of the U.S. Congress, works directly with and for the committees of Congress, providing them with objective, thorough analysis of technological issues.

Governed by a congressional board and advised by a council of distinguished citizens, OTA operates with a multidisciplinary staff. It draws extensively on the technical and professional resources of universities, industry, public interest and citizen groups, State and local officials, and individuals to ensure excellence in quality and impartial presentation of all views.

Speakers

ROBERT S. McNAMARA served as U.S. Secretary of Defense from 1961 until 1968. He then served as President of the World Bank Group of Institutions until 1981. Since his retirement, Mr. McNamara has served on the boards of several corporations, and he is currently associated with a number of nonprofit institutions, including the World Resources Institute, the Trilateral Commission, and the Overseas Development Council, Mr. McNamara is the author of The Essence of Security: One Hundred Countries, Two Billion People; The McNamara Years at The World Bank; Blundering Into Disaster; and Out of the Cold. He is the recipient of numerous awards, including the Presidential Medal of Freedom with Distinction and the Albert Einstein Peace Prize.

GRO HARLEM BRUNDTLAND's third term as Prime Minister of Norway began in November 1990. She chaired the World Commission on Environment and Development, which published the landmark document, *Our Common Future*. This document focused international attention on environmental issues and led to the U.N. Conference on Environment and Development. Mrs. Brundtland has received a number of awards, including the Third World Prize for 1988, the Indira Gandhi Prize for 1988, and the Onassis Foundation's Delphi Prize for 1992.

LAURA D'ANDREA TYSON is Chair-designate of the Clinton Administration's Council of Economic Advisors. She is professor of economics and business administration at the University of California at Berkeley and co-director of its Berkeley Roundtable on the International Economy. Professor Tyson served on President-elect Clinton's economic transition team for technology, small business, and manufacturing issues. She has worked with the Cuomo Commission on Trade

and Competitiveness, the Advisory Board of the Economic Strategy Institute, the Conference Board Economics Colloquium, the Economic Policy Institute Research Council, the Council on Foreign Relations, and the Subcommittee on a Global Economic Strategy for the United States.

ARNOLD S. RELMAN is Editor-in-Chief Emeritus of the New England Journal of Medicine and Professor of Medicine and of Social Medicine at the Harvard Medical School. During his 30-year career as clinician and researcher, Dr. Relman published extensively in his area of expertise (nephrology and electrolyte and acid-base balance). In recent years he has written widely on the economic, ethical, legal, and social aspects of health care. Dr. Relman is a Trustee of Columbia University and serves on the board of the Hastings Center for Bioethics. He is a member of the Institute of Medicine, the American Academy of Arts and Sciences, and the Phi Beta Kappa Senate. He is the recipient of numerous professional awards and holds several honorary degrees.

DEREK BOK was president of Harvard University from 1971 to 1991. He is now Harvard's 300th Anniversary University Professor and previously served as professor and then dean of the law school. Mr. Bok is on the board of the International Peace Academy and of the Citizens Democracy Corps and served until recently as a member of the National Commission on Public Service. He has authored a number of books and journal articles, including: Universities and the Future of America; Higher Learning; Beyond the Ivory Tower: Social Responsibilities and the Modern University; and Labor and the Community. A graduate of Harvard Law School and a former Fulbright Scholar, Mr. Bok is also the recipient of numerous honorary degrees.

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