



Office of Technology: Assessment 10

Newsletter

November 1, 1978

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OTA Develops Priority List to Guide Assessment Activity

At the initiative of Director Russell W. Peterson, OTA has established a "priorities list" of major issues facing society. Far ranging in scope, the selection of priorities is intended to focus OTA attention on technological matters that will have the most significant impact on the future quality of life. Senator Edward M. Kennedy, Chairman of OTA's Board, has called development of these priorities "the most important work OTA has done to date." It "will provide a valued focus on the truly important issues of our time," he said.

To develop the list, OTA first solicited recommendations from some 4,500 persons and organizations in both the public and private sectors; OTA's Congressional Board and Advisory Council; congressional committee staff members; the Congressional Research Service; and the General Accounting Office.

This invitation produced more than 1,400 suggestions. OTA staff suggested others. Additionally, more than 2,800 candidate items were selected from published material. In total, 4,293 topics were considered. Those were synthesized into 286 topics which, in turn, were pared to the final list.

All of the priority projects involve a study of the impacts of technology, are relevant to concerns of the Congress, and were selected on the basis of their potential impact on the future quality of life.

Congressman Larry Winn, Jr., Vice Chairman of the OTA Board, said he felt the priorities-setting process "represents a significant milestone for OTA. The Board's task of approving projects should be improved immensely."

Dr. Jerome B. Wiesner, Chairman of the Technology Assessment Advisory Council, noted that the process "should make it possible for the OTA staff to focus its efforts on issues of great relevance to Congress and the Nation."

As items on the priority list are approved as project assessments by OTA's Congressional Board, they are removed to an "active projects" list and new items added to the priorities list. (Six items from the initial list were approved as projects by the Board on October 3. See story page 3.)

OTA's Advisory Council is deeply involved in the selection of the proposed priorities. The OTA staff will continue through the fall to discuss candidate items and rankings with staffs of congressional committees until all major committees have been consulted. The resulting revised list will be known as the 1979 OTA priority list and will be used as guide in selecting projects for presentation to OTA's Congressional Board for approval. "This is to be an ongoing activity with the official priority list revised at least annually," noted **Governor Peterson**. OTA will also continue to undertake other Board-approved assessments which originate from congressional committee requests.

The current preliminary list of proposed priorities is given to the right.

Peterson To Visit the Peoples Republic of China

OTA Director Russell W. Peterson will join a delegation of 12 American scientists scheduled to visit the Peoples Republic of China during November. He will leave on November 9. The delegation, all members of the Board of the American Association for the Advancement of Science, was invited by Professor Chou Pei-yuan, head of China's Scientific and Technical Association, as part of that country's effort to develop international academic exchanges and contact with scientific and academic communities in other countries.

Governor Peterson has been asked to lecture on the impacts of technology and the role of OTA. Peterson will meet with a variety of Chinese officials responsible for energy, technology for local development, health, and family planning.

Priority List as of Nov. 1

- National Water Supply and Demand
- 2. Alternative Global Food Futures
- 3. Health Promotion and Disease Prevention
- 4. Technology and World Population
- Productivity of U.S. Croplands, Forests, and Wetlands
- Technology and the Developing World
- 7. Peace Technology
- 8. Future of Military Equipment
- Designing for Conservation of Materials
- 10. Impact of Microprocessing on Society
- 11. Utilization of Extraterrestrial Space
- 12. Movement of Goods
- Weather and Climate Technology
- 14. Controlled Thermonuclear Fusion
- Potential Economic Impacts of Federal R&D
- 16. Prospects for Increased Longevity
- 17. Prescription Drug Use
- 18. Technology and Mental Health
- 19. Forest Resource Technologies
- 20. Energy Efficiency in Industry
- 21. Deep Ocean Minerals Development
- 22. Role of Technology in Meeting Housing Needs
- 23. Ocean Waste Disposal

List of Publications

An updated catalog of the Office of Technology Assessment (OTA) reports is now available from OTA's public affairs office. The new "List of Publications" briefly summarizes more than 70 OTA reports and includes forms with which to order those reports directly from the U.S. Government Printing Office. Requests for the catalog may be sent to the Public Affairs Office, Office of Technology Assessment, U.S. Congress, Washington, D.C. 20510.

OTA Reorganization Completed

OTA Director Russell W. Peterson has announced completion of a major agency reorganization which "should markedly strengthen the management of OTA," he said. The principal feature of the reorganization is the creation of three major operating divisions; each headed by an Assistant Director. Increased organizational efficiency has been a primary objective of Governor Peterson since he joined OTA last January.

OTA's new framework will provide "greater flexibility and interchangeability of personnel" and allow broader use of OTA's multidisciplinary staff

within the three operating divisions, Peterson observed.

Each new Division consists of several major program groups:

• Energy, Materials, and Global Security Division—Energy; Materials; Technology and World Trade; and Military Studies.

· Health and Life Sciences Division—Health; Food; Genetics and

Population; and Ecology.

• Science, Information, and Transportation Division—National R&D Policies and Priorities; Oceans; Information Technology; and Transportation.

Dan De Simone, OTA Deputy Director, is also acting as Assistant Director of the Science, Information, and Transportation Division until an Assistant Director is appointed.

Other Assistant Directors, their groups managers, and telephone numbers are listed below.

Energy, Materials, and		004 0700
Global Security Division	Lionel S. Johns	224-0732
Energy	Richard Rowberg	224-7044
Materials	Albert Paladino	225-9035
Technology & World Trade	Henry Kelly	224-0743
Military Studies	Peter Sharfman	224-0732
Health and Life Sciences Division Joyce Lashof		224-1047
Health	H. David Banta	224-4142
Food	J.B. Cordaro	225-9021
Genetics and Population	Gretchen Kolsrud	224-3785
Ecology	(vacant)	
Science, information, and	Daniel DeSimone	224-3695
Transportation Division	(Acting)	
National R&D Policies and		
Priorities	Carolee McBee	224-1801
Oceans	Robert Niblock	224-8701
Information Technology		
Transportation		225-7731
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OTA Report Sales Top 60,000

The Government Printing Office and the National Technical Information Service have sold more than 60,000 copies of OTA reports since the first report was published in mid-1974. OTA has now published more than 70 m

New Senior Staff, New Assignments

OTA Director Russell W. Peterson has announced several changes in senior staff assignments.

 John A. Burns, Jr. has accepted the newly created position of Senior Editor. Burns will work with Governor Peterson, to whom he reports, and the Assistant Directors to help them develop and implement policies and procedures to assure uniform quality and cost effectiveness in writing OTA assessments. Burns was Director of DHEW's Editorial Operations Division and has 18 year's writing experience in executive and legislative branches and in the private sector.

 Peter J. Sharfman is Group Manager for the newly established military studies area in the Energy, Materials, and Global Security Division. Formerly he was Assistant Director, Net Assessment, in the Office of the Secretary of Defense. His first assignment will be the assessment

of the effects of nuclear war.

Michaela L. Walsh has been appointed Project Leader for the assessment of technology for local development. She is on leave of absence from the Rockefeller Brothers Fund where she was responsible for projects on alternative futures involving consideration of science and technology, social investments, and cultural values. Walsh will begin part time in mid-November. She will join OTA full time January 1.

Seven Reports Explore Issues in Energy, Food, Health, R&D

Since August, the Office of Technology Assessment has released seven new reports in the areas of energy, food, health, and R&D. Persons ordering copies of the reports should refer to the GPO stock number. That number and the price of each report are provided in parenthesis. Reports should be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402

Application of Solar Technology to Today's Energy Needs—Volume II, describes the array of onsite solar energy systems and methods for evaluating the economic and technical merits of those systems. (GPO Stock # 052-003-00608-1, \$8.75.)

Food

Nutrition Research Alternatives, evaluates strategies for redirecting Federal research toward relationships between nutrition and changing American health problems and explores administrative ways to implement those strategies. (GPO Stock # 052-003-00596-4, \$2.75.)

Health

Assessing the Efficacy and Safety of Medical Technologies, examines the need for assessing the efficacy and safety of medical technologies before they go into widespread use. Seventeen case studies illustrate current technologies and issues involved. (GPO Stock # 052-003-00593-0, \$3.25.)

Policy Implications of the Computed Tomography (CT) Scanner, analyzes efficacy, health planning, use, and financial issues involved in widespread adoption of the computed tomography scanner. (GPO Stock # 052-003-00565-4, \$4.00.)

R&D Policies and Priorities

Government Involvement in the Innovation Process—A Contractor's Report, examines the Federal Government's role in influencing introduction of new technologies, goods, and services into the marketplace. (GPO Stock # 052-003-00576-0, \$2.50.)

Impact of a Department of Education on Federal Science and Technology Activities—A Contractor's Report, suggests criteria for evaluating the impact of a Department of Education on Federal science and technology education programs. (GPO Stock # 052-003-00573-5, \$2.30.)

The Role of Demonstrations in Federal R&D Policy, analyzes the role of demonstrations in Federal R&D policy and gives criteria for evaluating their success or failure. (GPO Stock # 052-003-00557-3, \$2.50.)

Russell W. Peterson Awarded Procter Prize for Scientific Achievement

Governor Russell W. Peterson, Director of the Office of Technology Assessment, was awarded the 1978 William Procter Prize for Scientific Achievement on October 28 at the 79th Annual Meeting of Sigma Xi, The Scientific Research Society. This annual award of \$1,000 was established 27 years ago by Dr. William Procter, noted authority on insect and marine life, to recognize significant contributions to scientific research.

The award was presented to Governor Peterson in a ceremony at Myrtle Beach, S.C., by Dean McFeron, President of Sigma Xi. Following the award dinner, Governer Peterson delivered the Proctor Prize lecture, "The Impacts of Technology," to the group of 450 scientists attending the 4-day meeting.

In his address, Governor Peterson stated that "science and technology by themselves are often inadequate to ensure enhanced social welfare. It is with that understanding that the Congress has acted in recent years . . . to form the Office of Technology Assessment. We are now more cautious and realistic in our assessment of technology. We now must demand critical analyses of what an advance can and cannot be expected to do, in what time period, and with what social and cultural costs and benefits."

He added that since "the public at large does not possess the wherewithal to monitor our work as scientists and administrators skeptically and thoroughly...men and women of science and technology must bear the prime responsibility for the monitoring.... We cannot afford to be blinded by the promises of science to the possible threats that their development may pose to humankind's very survival—nor so frightened by the threats that we ignore the promises."

Sigma Xi, one of the Nation's leading scientific honor societies, was founded in 1886 and currently has over 500 affiliated chapters and clubs and a membership of more than 110,000 scientists throughout the United States. A few of the previous recipients were: Vannevar Bush, Edwin H. Land, Margaret Mead, Lewis M. Branscomb, and William O. Baker.

OTA Board Approves Seven New Projects

At its October 3 meeting, the OTA Congressional Board approved 7 new projects, bringing to 24 the number of assessments currently in progress. Titles of the new projects, and their anticipated completion dates, include: Effects of Nuclear War, February 1979; Impacts of Telecommunications Technology, October 1979; Regulations and Technological Innovations, January 1980; Cost-Effectiveness of Medical Technologies, April 1980; Impacts of Advance Air Transport Technology, April 1980; Impacts of Applied Genetics, May 1980; and Solar Power Satellite Systems, May 1980.

The first six are projects taken from OTA's preliminary priority list (see story, page 1); the seventh reflects a request from the House Committee on Science and Technology.

Other ongoing OTA assessments and their anticipated completion dates are:

- Siting of Coastal Energy Facilities, November 1978
- Oil Shale Technology, November 1978
- Conservation Through Reduced Wastage, November 1978
- Coal Utilization, January 1979
- Residential Commercial Energy Conservation, January 1979
- Impacts of Global Trends in Energy Supply, Demand, and Technology, January 1979
- Alternative Pest Management Strategies, March 1979
- Existing Federal Coal Development Rights, April 1979
- Energy From Biological Processes, April 1979
- Societal Effects of National Information Systems, April 1979
- Impact of Technology on U.S. Industry Competitiveness, April 1979
- Implications of International Technology Transfer, May 1979
- Environmental Contaminants in Food, May 1979
- Technology for Local Development, September 1979
- The Future Use and Characteristics of the Automobile Transportation Systems, September 1979
- Future Availability of Imported Materials, September 1979
- Disposal of Nuclear Wastes, October 1979

Hearings Explore Hospital Costs

The Office of Technology Assessment has conducted six studies bearing on technology's impact on hospital care costs, OTA officials recently told a subcommittee of the House Committee on Science and Technology at hearings on the subject.

The hearings coincided with release of OTA's report on Efficacy and Safety of Medical Technologies, which had been requested by the Senate Committee on Human Resources.

Appearing before the Subcommittee on Domestic and International Scientific Planning, Analysis and Cooperation, OTA assistant director Joyce Lashof, M.D., and health group manager David Banta, M.D., said that OTA "has done both long-term studies of important generic issues such as medical technology development and evaluation, and short-term studies of specific issues of immediate interest to Congress, such as the carcinogenicity of saccharin. To be most effective, OTA should anticipate problems so that analytical work can be available when a policy issue emerges. Such anticipation occurred in the area of evaluation of medical technology." they said. Specifically, they pointed to OTA studies on *Drug Bioequiv*alence; Development of Medical Technology: Opportunities for Assessment; Policy Implications of the Computed Tomography (CT) Scanner; Assessing the Efficacy and Safety of Medical Technology; Policy Implications of Medical Information Systems; and Cancer Testing Technology and Saccharin.

Subcommittee Chairman Rep. James H. Scheuer, (D-NY) said the 3 days of oversight hearings were to give "special attention...to options available to HEW and other Federal departments for managing the development, dissemination, and utilization of health technologies."

Lashof and Banta told the subcommittee that Health Promotion and Disease Prevention and Cost-Effectiveness of Medical Technologies are "top priorities" on OTA's assessment agenda (see above story). They pointed out that OTA's Congressional Board recently approved the Cost-Effectiveness assessment.

When Congress convenes in January 1979, OTA will seek Board approval of the Health Promotion and Disease Prevention project, they said.

PROFILES—who we are

OTA is filled with people who possess not only keen but often mulifaceted talents. To help us to know one another better, the newsletter will run brief sketches of people.

BEN SILVERSTEIN

Recent Accomplishment: Completed OTA's report on Ocean Thermal Energy Conversion.

Background: B.S.E. from Webb Institute and Master's degree from MIT in Naval Architecture and Marine Engineering, Ph.D. from the University of California (Berkeley) in Hydrodynamics and Marine Engineering. Worked with the U.S. Bureau of Ships and Office of Naval Research. Left Hydronautics, Inc., to join OTA.

Family: One wife, five children, 2,000 plants—no dogs, cats, gold-fish, or hamsters.

Interests: Family and theater most enjoyed Vincent Price's show: "Diversions and Delights"—an evening with Oscar Wilde.

How He Came to OTA: "Eagerly."

Hobbies: Reading escapist literature (Recommends Sanders' spy thriller, "Second Deadly Sin"); chess, golf (twice a year), travel.

Roots: From New York City ("Isn't everyone?").

Worst Recent Experience: 19-yearold son moved into his own apartment.

Best Recent Experience: 19-yearold son moved into his own apartment.

On Life in Washington: ("After a trip to New York, Washington is heaven.") However, most time is spent in Columbia, Md., (where he lives) with "sojourns" to Baltimore.

LEE DICKINSON

Recent Accomplishment: Project leader on the Railroad Safety Assessment.

Educational Background: Bachelors degree in Civil Engineering; Masters in Transportation Planning; and a Ph.D. in Transportation Planning and Traffic Engineering.

Professional Background: Worked for MITRE Corporation for 2 years on UMTA's "Downtown People Mover" program and the potential for automated guideway transit; 3 years as a U.S. Army engineer; designed highways for a year before joining Army.

Family: Married to Marie Fabrizio; no children yet "except for our Lhasa Apso." (That's a dog, not

an adopted refugee).

Interests: Washington Redskins; "going to our retreat in Ocean City;" music; and privacy; listening to and telling jokes.

Hobbies: Tennis; dancing; "working around the house;" and reading.

Roots: DC, Maryland, and Virginia "I've lived here all my life except for a 1-year vacation in Vietnam."

How He Came to OTA: "I heard through friends on Senate Appropriations that a position was open as program manager in Transportation. So, I applied. It wasn't."

Worst Recent Experience: "Having to sit through a two-week DC traffic school course (which I used to teach) for speeding while coming to work on a holiday."

Best Recent Experience: "Having somebody offer to buy our 1976 MGB."

On Life in Washington: "Exciting, dull, funny, sad, expensive, cheap, interesting, boring...Good times!"

MARTHA DEXTER

Background: M.A. in library sciences from U-Mo. Graduated summa cum laude in history from U-Mo. Member of Phi Beta Kappa and Beta Phi Mu, a library sciences honor society. Also attended U-Okla. and U-Tulsa. Worked in libraries on each campus.

Previously: Assistant Librarian of the Kennedy Center for Bioethics at Georgetown University.

Family: Husband, Patrick, manager of information services at Gillette Medical Evaluation Labs in Rockville; mother of two cats, Puck and Waldo.

Interests: Enjoys reading, eating out, swimming. Also plays plano. Particularly favors classical music; her favorite recording is Ma Vlast by Smetna. She likes rugged adventure—they plan to go camping in Virgin Islands in November.

Favorite Books: Fiction—"The Honourable Schoolboy" by John LeCarre and "Shogun" by John Clavell. Nonfiction—"The Hermit of Peking" by Hugh Trevor-Roper.

On Life in Washington: "I love the theaters and restaurants but hate the heat and tourists."

Volunteered Quote: "My favorite scotch is Dewar's."

Juggernauts Shut-Out Deficits!! Guest Sports Editor Debi "Too Tall" Chertok

The Juggernauts, OTA's Wild and Crazy football team, romped to a 19-0 win over the Deficits (House Budget Committee) Saturday, October 14.

The first touchdown came near the end of the first half when Pat Dexter hit Roby Burke with a 40-yard pass. The crowd cheered as Roby zig-zagged his way to the end zone.

In the second half, Pat again teamed up with Roby to score the Juggernauts' second touchdown of the game with a 35-yard pass. Yogi, our ringer, recruited by OTA's old,

but not forgotten friend, Mona Chick, caught a pass to score the extra point.

Fine plays were executed by Marya Breznay (who has the bruises to prove it!), and Pat Poulton who made this year's first reception by a woman.

A series of exciting catches late in the second half and a fine punt by Jim Leach set the Juggernauts up for their final score which came on a 10-yard pass to Andy Kapsak.

Equally important for the victory was a strong defense. A defense highlight came when Debi "Too-Tall" Chertok broke through the Deficits' line to sack their quarterback. This was not the end of the quarterback's troubles, however.

Soon after, Martha Dexter pushed through the blocker to make a second sack. The Juggernauts' defense also made several critical pass interceptions.

This week we missed Jim Tolson, who scored OTA's first touchdown of the season in our game before on a 40-yard pass giving us a 6-6 tie with the Dons (Edwards of California). However, Bob Smith's coaching kept us on target.

Another plus for a great game was a cameo appearance by Boom-Boom (remember softball?) Rudd. Also we can't forget Lee Dickinson, who plays football like he plays softball!

Personals

NEW ARRIVAL BRIEFS

Energy, Materials, and Global Security Division: Steve Plotkin, environmentalist currently working on the Coal Project will provide environmental viewpoints for upcoming Energy assessments. . .Arlene Maclin, a Congressional Fellow, assisting with the Solar Power Satellite project. . .Ronnie Goldberg, formerly a consultant, to join the World Trade Group full time. . .Bernadette Balakit comes to OTA's Materials Group support staff, srom McGraw-Hill's Continuing Education program.

Health and Life Sciences Division: Page Gardner leaves Americans for Democratic Action to join the Health Group as an editor and research assistant...Bill Burnett, formerly a self-employed court reporter, joins Health Group's support staff full time...Ruanne Pengov, 1 year as Congressional Fellow working on Health Group computer technology assessment, to Project Leader, Information Technology...Virginia Cwalina (that's Swall-enna) leaves Johns Hopkins School of Hygiene and Public Health to become administrative assistant for Health Programs. . . Bill Scanlin, a Congressional Fellow and attorney is working on genetics and population projects. . . Michael Gough (like cough), a molecular biologist, working on the Health Group's study of new and emerging technologies, last summer a detailee from NIH to assist with the Saccharin study.

Science Information, and Transportation Division: Carolyn Gilmore comes from the International Communications Agency to the Oceans Group support staff. . . Dick Willow, formerly with Congressman Frenzel, is working with the Transportation Group on the Advanced Group Rapid Transit study. . . David Seidman detailed from the D.C. Department of Transportation to work on the Goods Movement Proiect... Dan Panshin, a Congressional Fellow, working on the Ocean Mining Platforms Project. . . Geraldine Duskie, who had a baby in June, has returned from maternity leave to her desk in R&D.

Administration: Pepi Pietz, after a year as Congressional Fellow in the Health Group, has joined Administration full time and will divide eforts between continued work on health issues and contract management.

Congressional Staff: Senator Ted Stevens has designated Mochtar Menduno as his OTA congressional staff representative.

DEPARTURES

Bill Fitzgerald to consult for the University of Pennsylvania (will continue to consult part time for OTA)... Chris Hill to become a research assistant at MIT's Center Policy Alternatives. . . lvy Wooten to become a secretary for Senator John Durkin...Jane Willems, selected as a VA Scholar for Independent Research, will spend 2 years at HEW's National Center for Health Services Research...Jim Tolson to work with his brother's computer firm in Manchester, New Hampshire. .. Sheila Patterson, late of the service center, will be a center for the Dayton, Ohio, Rockettes, women's professional basketball team. She signed a contract with Washington, "the highest paid player on the team, which sold its franchise to Dayton. The move is a good one for Sheila, because Dayton is her hometown. She reports the season will begin in November, and hopes Washington fans will be able eventually to see some of the games on television.

OTA Capitol Pun-ishment

The following are judged to be "one" or "two-groaners". If you can do better let us know.

OTA One-Liners

OTEC is not the Ohio Technological Institute; nor is Woteki the Women's Ohio Technological Institute.

The Health Group is not a new Washington jogging club.

A CT Scanner is not quite a feline counterpart to a dog catcher.

Solar Collectors are not concerned with gallactic arrears.

Conservation Through Reduced Wastage could apply to hips as well.

An Energy Facility has been sighted off New Jersey.

Urban Transit Vehicle Demonstrations are not revolutionary attempts to mobilize the masses.

Jim Leach isn't; Chris Wright is; Linda Parker doesn't; Kathie Boss could be; Thomas Bull does.

"Caring, Sharing". . . Keys to Combined Federal Campaign Success

OTA NEARS GOAL

At presstime, OTA appeared close to achieving its Combined Federal Campaign goal of \$3,450. Persons who, for any reason, were unable to contribute may still do so by contacting their group "key worker."

OTA Director Russell W Peterson kicked off OTA's participation in the Combined Federal Campaign with an agency-wide staff meeting and a challenge to match intellectual commitments to a better future with a financial commitment to improving the future.

Although this marks OTA's first "full-fledged" participation in the Combined Federal Campaign, for each of the last 15 years the CFC has called on Federal employees to make contributions or to pledge payroll deductions in support of the 163 volunteer organizations that provide services to more than 1 million adults and children in the national capital area. Contributions also support 13 National Health Agencies and six International Service Agencies. Donations may be earmarked for specific organizations. This year's government-wide goal is \$12.5 million.

Governor Peterson observed that CFC is unusual among charities in that administrative costs only amount to 3.25 percent of the money collected, thereby increasing the benefit where it is most needed.

Emphasizing that the decision to give and the amount of one's gift "is, of course, a personal voluntary decision," Peterson expressed hope that each individual will want to participate "to the fullest extent possible." He pointed out that "all of us are affected" by CFC supported programs. "This is one way we can contribute more directly to solving the world's problems," he said.

OTA's "key workers" for CFC are **Debra Datcher**, Director's office (including Assistant Directors) and Liaison Office; **Kathy Mason**, Administration and Personnel; **Reita Crossen**, Public Affairs, Publications, and the Library; **Lucia Turnbuil**, Transportation; **Bob Smith**, Food; **Mick Riddiough**, Health; **Bill Davis**, Materials; **Barry Barrington**, R&D; **Dick Rowberg & Co.**, Energy; **Kathy Beil**, Oceans; **Dottie Richroath**, Technology, World Trade, and Military; **Dave Cahn**, Telecommunications; **Marya Breznay**, Genetics and Population; and **Terry Parsons**, Exploratory.