

"OTA Priorities 1979" Delivered to Congress

Culminating 11 months of intense staff effort and broad public outreach, OTA issued its 1979 priority list on January 15.

The 1979 list contains 30 major national and global, scientific, and technological issues ranked in order of priority. It will be used throughout the year to guide the selection of projects to be undertaken by OTA.

The priorities were developed to help OTA better carry out its statutory mandate to provide the Congress with early indications of the likely consequences of applications of technology.

In publishing the 1979 list, OTA Director Russell W. Peterson noted: "This approach provides Members of Congress with one means of stepping back from the near-term and more narrow issues which crowd their busy calendars to focus on the longer term and more comprehensive issues which often crosscut the jurisdictions of several congressional committees."

The list was developed by OTA staff following an extensive survey of the scientific and technological communities for advice. More than 5,000 people were asked "to consider the critical technological issues that they thought were of especial importance to the United States and the world" and submit their top choices to OTA. Staff efforts by the Congressional Research Service and the General Accounting Office, as well as by OTA, resulted in major contributions of candidate topics for the priority list.

From this effort, OTA received 1,530 suggested topics for study, and extracted another 2,875 items from the published literature.

For 9 months, the OTA Advisory Council devoted most of its efforts to proposing, critiquing, and ranking items for the list.

"All members of the Board as well

as their staff liaison with OTA were involved in the priority-setting process. In addition, the staffs of nearly all congressional committees were consulted," Peterson noted.

Winnowing was carried out by OTA staff. A preliminary draft list of 30 issues was made public when it was presented to a joint meeting of OTA's Board and Council on September 18, where unanimous support for the process was expressed.

Subsequently, at its October 3 meeting, the Board approved seven topics on the preliminary list for immediate study. The seven, on which OTA is now working, are:

- Alternative National Energy Futures Regulations and Technological Innovation
- Effects of Nuclear War
- Impacts of Telecommunications Technology
- Impacts of Applied Genetics
- Cost Effectiveness of Medical Technologies
- Potential for Advanced Air Transport

From October through December, further consultation with committee staffs, Advisory Council deliberation, and OTA staff analyses were carried out to complete the 1979 list.

The priorities ranked in order are:

1. Impact of Technology on National Water Supply and Demand
2. Alternative Global Food Futures
3. Health Promotion and Disease Prevention Technologies
4. Technology and World Population
5. Impact of Technology on Productivity of the Land
6. Impacts of Technology on Productivity, Inflation, and Employment
7. Technology and the Developing World—Meeting Basic Human Needs

8. Peace Technology
9. Impact of Microprocessing on Society
10. Applications of Technology in Space
11. Designing for Conservation of Materials
12. Future of Military Equipment
13. Impact of Technology on the Movement of Goods
14. Weather and Climate Technology
15. Allocating the Electromagnetic Spectrum Globally
16. Implications of Increased Longevity
17. Controlled Thermonuclear Fusion
18. Technology and Mental Health
19. Technology and Education
20. Prescription Drug Use
21. Forest Resource Technologies
22. Health Technologies and Third-World Diseases
23. Electric Vehicles: Applications and Impacts
24. R&D Priorities for U.S. Food Production
25. Alternative Materials Technologies
26. Deep Ocean Minerals Development
27. Energy Efficiency in Industry
28. Role of Technology in Meeting Housing Needs
29. Ocean Waste Disposal
30. Technology and the Handicapped

The priorities list will be updated at least once a year. In late 1979, a revised list will be developed for use in 1980.

Copies of *OTA Priorities 1979* may be obtained by writing the Public Affairs Office, Office of Technology Assessment, U.S. Congress, Washington, D.C. 20510.

Commercial Bookstore Opens Government Section

For the first time, a commercial book retailer has established a section within one of its stores exclusively featuring Federal Government publications. The "Government Corner" has been added in Waldenbooks' new store, Fair 500th, recently opened in the Wall Street district of New York City.

If successful, the action by Waldenbooks, one of the Nation's largest book retailers, could bring about the expansion of similar retail sales operations in the future.

Board and Council Meeting Dates Set

The OTA Advisory Council is scheduled to meet Tuesday, January 23, in the OTA Conference Room.

The Technology Assessment Board will meet Wednesday, January 31, at 2:00 p.m. in room EF-100 of the U.S. Capitol.

Peterson, Lashof Recount China Trips

by Jeffrey P. Cohn

In a major reversal of policy, China is making strenuous efforts to improve her science and technology as part of modernizing the country by the year 2000, OTA Director Russell Peterson and Assistant Director Joyce Lashof told a group of Office staffers recently.

Both Peterson and Lashof are back from trips to China. Peterson went with the Board of the American Association for the Advancement of Science. Lashof traveled with a group of doctors and health administrators as guests of the China People's Friendship Association.

"I will bet on the success of modernization efforts if the present political leadership can hold on," Peterson said. "They have the potential for achieving great miracles in making China a potent and advanced country."

Peterson cited several scientific and technological projects as examples of the effort China is making. One involves diverting water for irrigation from the Yangtze River in central China to the Yellow River in the north. While its potential for improving food production is great, Peterson noted that a "great battle" is going on between government planners and biologists who are concerned with the impacts of the project.

Another area of impressive efforts, according to Peterson, involves the Chinese Institute of Biophysics. There, Chinese scientists are working on the chemical structure of insulin and other biological materials, particularly enzymes.

Both Peterson and Lashof visited Chinese hospitals and health care clinics, where again they were impressed with the efforts and dedication of the people there. Lashof noted that during the Cultural Revolution great efforts were made to train people in medical care to bring better treatment to rural areas. So-called "barefoot" doctors were nominated by their factory or commune workers, given short training courses, and sent out to work in the countryside.

"These doctors are allowed greater responsibility than we would have expected given their limited training," Lashof noted. She added, however, that they are backed up by more highly trained physicians to whom more seriously ill patients are referred.

Lashof said Chinese hospitals were primitive by U.S. standards, particularly in the equipment they have available. However, the Chinese have done some great things, especially with burn victims and reimplantation. Lashof said Chinese doctors have implanted toes onto hands to replace lost fingers. In one case, they removed a patient's arm at the shoulder because of a cancerous tumor, cut off the upper part of the arm, and then restored the forearm onto the patient. And, amazingly, it now functions.

Peterson said the Chinese he spoke with were frank in saying they lagged behind the West in terms of technology. But they are determined to catch up and close the gap, he added; the Chinese want to tap the knowledge of the rest of the world, except the Soviet Union.

In an aside, Peterson reported that the AAAS group was entertained with banquets in every city they visited. At one, with his host sitting at the next place, he was served two cooked whole sparrows. "I ate everything but the heads," Peterson reported. "The next two nights I was awakened by dreams in which I saw those sparrow heads on the ceiling."

NCIC Report Published

A recently published OTA report raises questions concerning issues of access, privacy, security, and Federal-State relationships regarding the FBI's National Crime Information Center (NCIC).

Emphasizing NCIC's Computerized Criminal History (CCH) system, the report is the first in an OTA series on the societal impacts of national information systems. A full assessment of NCIC along with reports on electronic funds transfer, electronic mail, and national information systems are expected in 1979.

The OTA report, *A Preliminary Assessment of the National Crime Information Center and the Computerized Criminal History System*, is available from the U.S. Government Printing Office. The GPO stock number is 052-003-00621-9; the price is \$2.75.

Daly New R&D Manager

Dr. Robert Daly has been named to head OTA's National R&D Priorities and Policies Group, effective January 2.

Since joining OTA in 1975, Daly has been a senior adviser to the Director. He also headed studies of the first 5-year R&D plan of the Environmental Protection Agency, and the preliminary analyses of the IRS Tax Administration System and the FBI's National Crime Information Center.

Prior to joining OTA, Daly worked for the Stanford Research Institute for 16 years, where he served as director of the Communications Technology Laboratory, Telecommunications Department, and Telecommunications Science Center. While at SRI, Daly wrote a paper on the detection of signals that has become a basic part of the telecommunications literature. It is being published in *Benchmark Papers in Electrical Engineering and Computers Science*, due out in 1979.

A native of Chicago, Daly received his Ph.D. in electrical engineering from Stanford University.

Parham Joins OTA Staff

Noted geologist and environmentalist Dr. Walter Parham has joined OTA as a senior analyst, beginning December 18. A former professor of geology and geophysics at the University of Minnesota, Parham most recently served as the Agency for International Development's (AID) representative for environmental problems on President Carter's "Global 2000" study.

Parham will work on issues concerning biological resources and ecology at OTA, reporting to Dr. Joyce Lashof in the health and life sciences division. Initially, he will head the planning effort for an assessment of the productivity of U.S. croplands, forests, and wetlands.

The OTA newsletter is published monthly to help keep staff members and congressional personnel informed about matters of interest. It is available to others interested in the Office by writing to:

Public Affairs Office
Office of Technology Assessment
Congress of the United States
Washington, D.C. 20510

PROFILES—who we are

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

LOLA CRAW (Admin)

Background: Alexandria native. Previously worked for Alexandria Hospital, Allegheny Airlines executive office, and an R&D outfit in Alexandria.

How Came to OTA: Answered ad in newspaper in 1975... "which didn't name OTA."

Family: None... "by choice."

Recent Accomplishment: Finished reading *Chesapeake* and started reading *The Far Pavilions*.

Interests: Traveling, (Mexico, Haiti, Dominican Republic, Virgin Islands, Bonaire, and out West) hiking, cross country.

On Life in Washington: "I find it exciting although I don't spend much time in D.C. itself."

Pet Peeve: Collecting money from people at OTA. "By the way Chuck Wixom owes me a buck."

Best Recent Experience: "Life with Bill."

Worst Recent Experience: "Haven't really had any."

Volunteered Quote: "You've got to be kidding. I'd give you one I use up here, but it's not printable."

Hobby: Does original embroidery designs on clothes.

JOANNE HEMING (Publishing)

Recent Accomplishment: Getting NCIC report ready for publication.

Roots: Arlington, Virginia: "I've lived here all my life. (And I don't like Yankees.)"

Education: BA, journalism; University of Maryland.

Professional Background: Printing specialist (editing, layout, make-up) at National Science Foundation.

How Came to OTA: Came with John Holmes: "He couldn't work without me."

Family: Unmarried; one dog (male, named Sally).

Interests: Amateur geologist: "I just love rocks—any and all kinds."

Hobbies: Flies to Canada once a month. "They know how to deal with snow there."

Recent Book Read: *Lucifer's Hammer* by Larry Niven and Jerry Pournelle.

On Life in Washington: Doesn't like local public transportation... or the snow.

Best Recent Experience: Seeing brother's newborn baby.

Worst Recent Experience: "Working on the OTA solar energy report."

MICK RIDDIOUGH (Health)

Roots: Missoula, Mont., then Bakersfield, Calif., finally San Francisco.

Education: Doctor of Pharmacy, Univ. of Calif. at San Francisco; MA, public health, Univ. of Calif. at Berkeley.

Professional Background: Intern and resident, clinical pharmacy, U.C.S.F.; professor of pharmacy at U.C.S.F.; visiting professor of pharmacy, 1975, Univ. of Sydney, Australia.

How Came to OTA: Joined OTA as Congressional Fellow in 1977: "I left the ivory-covered halls of Berkeley for the perspiration-covered halls of the Plaza Hotel."

Interests: All sports, particularly tennis, jogging.

On Life in Washington: "Absolutely great. I love the excitement of politics and the access to the eastern seaboard."

Best Recent Experience: "Getting out of debt and falling in love. Also, learning how the mind of an 8½ year old girl works."

Worst Recent Experience: Catching the flu.

Volunteered Quote: "People are important to me, and I think the people at OTA are great. If I can't find good people to work with then its time to move on."

Personals

OTA reluctantly bids farewell to Barry Barrington and Suzann Matthews... Michaela Walsh and Leslie Sederlund have joined the R&D Group... Tom Bull has become a full-time OTA staffer working on Energy's biomass study... Gloria Proctor is the new secretary in the National Security Group... Three Congressional Fellows have joined the OTA staff. Leonard Saxe will be working in the Health and Genetics and Population Groups. Robert Friedman will start Jan. 15 in the Oceans Group and James Cornelis started Jan. 5... Richard Thoreson, an economist, has joined the Energy Group as a full-time consultant.

We regret to report that David Comey, consultant with the Energy Group who had worked on the National Energy Plan, Coal Utilization, and Nuclear Proliferation projects, died Friday, January 5, as the result of a car crash.

Welcome back Rose. We've missed you... Why didn't Ginny Cwalina show up for her very own surprise birthday party?... Lee Dickinson doesn't have cuffs so he is growing a beard... Bernadette Balakit of the Materials Group got engaged over Christmas to Steve Higgins of Rhode Island... Why has the hair on David Banta's head fallen to his chin?... Ruann Pengov's

sputters of late concern those nasty questions about Woody Hayes. (Ruann is vice president of the Ohio State University National alumni group.)

Shelia Sidelined

Shelia Patterson, who worked in OTA's Service Center until she signed a Women's Professional Basketball League (WBL) contract last fall, is hurt and won't play again this year, the *New York Times* notes.

Shelia (that's how she spells it) was also apparently the league's top player.

A *Times* sports story on Sunday,

Continued from p. 3

January 7, about another player, Althea Gwyn, noted: "Now that the 6-foot 4-inch Shelia Patterson of the Dayton Rockettes is out for the season with a knee injury, the 6-2 Miss Gwyn is the big star of the W.B.L."

Shelia was drafted by the Washington franchise, which moved to Dayton, Shelia's home town.

Barrington to Take NAS-NRC Study Post

L. F. Barry Barrington has been appointed executive secretary of a special study committee of the National Academy of Sciences' National Research Council. The committee will study motor vehicle emissions for the Environmental Protection Agency, the third such study done for EPA by the NRC.

Barry joined OTA in January 1976 as the executive secretary for the Technology Assessment Advisory Council. For the past 9 months, he has been a member of the R&D policies and priorities group where he worked on the report, *Government Involvement in the Innovation Process*. He has also helped with the projects on national labs, reorganization of federal S&T activities, and carcinogens in the workplace.

Barry starts his new position Jan. 22.

Athletic Party Draws Winners

Congratulations are in order to the winners in the drawings at the OTA football-softball party December 14. Winners of liquid refreshments included, in order: Bob Niblock, Bob Niblock, "Butch" Rudd, Claudia Sanders, Jim Tolson, and Junior Bridge.

In an earlier drawing, Chuck Wixom won the right to serve as next year's softball coach and Marya Breznay as football coach. Linda Parker and Martha Dexter will be the respective assistant coaches.

Head cheerleader is Clyde Behney.
Congratulations to all!

The following letter was received from Father Lawless of Augustinian College, whose field OTA uses for softball:

January 2, 1979
Augustinian College
Washington, D.C. 20017

Carol Ann Drohan

Dear Carol,

In the name of the community I wish to acknowledge your generous and gracious gift of fifty dollars to the College. We are grateful to all of you at OTA and assure you of a warm welcome once again. If this warm weather continues, the season should not be far off. Best wishes for the New Year.

Cordially yours,

George P. Lawless

Opinion

We solicit views and opinions of OTA people for this "Forum."

Wishing Well

In a storehouse of tomorrows
Where glad memories have stirred,
Where we pause to drown our sorrows
In the Green Hat on Third:

That's the place where hopes are rising
As we lay it on the line:
Give us cake with lots of icing
Throughout Nineteen Seventy-Nine.
— Barry Barrington

Capitol Punishment

Dennis Linton keeps his clothes clean.

Reita Crossen isn't.

Chris Wright may be, but Sara we're not sure about.

Dick Rowberg needs a paddle to keep going.

John Bell keeps ringing, but no one seems to notice.

Sandy Cornett and Joel Hirschhorn are starting up an OTA orchestra; others are invited to participate.

Erene Pecan isn't nuts.

OTA Staff Seminar

The Role of Coal

Coal—an ace in the hole or a joker in the deck? That was the subject of OTA's first staff seminar December 12. The seminar discussion was led by Alan Crane, project leader for the coal use study now nearing completion.

Crane said that coal is the only energy resource with both sufficient supplies and a technology in place for a great expansion of production in the near future. However, he added, serious questions remain concerning the environmental, health, labor, and other social impacts of using coal.

Environmental problems are serious, Crane said, but the worst of these have been largely addressed by recent laws on strip mining, air and water pollution, and energy. These laws set standards which should eliminate many environmental concerns, although successfully carrying them out still has to be done.

As one major exception, Crane cited the possible health hazards posed by burning coal. Here, spotty data prevent firm conclusions from being drawn. Substantial action may be necessary if early concerns are borne out. Expanded use of coal would go mostly for generation of electricity, Crane said. The only real alternative to coal now is nuclear-fired powerplants. In the case of coal, Crane noted, small is not beautiful because of inefficiencies in the burning process.

The first in a monthly series, staff seminars are designed to give OTA staff and invited participants an opportunity to learn about and discuss current issues. Each will center on the subject of a recently or nearly completed assessment.

The next seminar is scheduled for January 15 at 4:30 p.m. in the OTA conference room. Clyde Behney will lead a discussion of the issues regarding the safety and efficacy of medical technologies.

Barney Can't Take Post

Dr. Gerald O. Barney will not be able to take the position of Assistant Director of OTA as he had been scheduled to do early in January. The "Global 2000" study, which Dr. Barney heads, will require several more months to complete than earlier anticipated. In view of this, Dr. Barney and OTA Director Russell W. Peterson agreed the OTA position would not be held open for him. Dr. Peterson expressed his disappointment that the timing did not work out and wished Dr. Barney well.