

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Science serves its readers as a forum for the presentation and discussion of important issues related to the advancement of science, including the presentation of minority or conflicting points of view, rather than by publishing only material on which a consensus has been reached. Accordingly, all articles published in *Science*—including editorials, news and comment, and book reviews—are signed and reflect the individual views of the authors and not official points of view adopted by the AAAS or the institutions with which the authors are affiliated.

Editorial Board

1978: RICHARD E. BALZHISER, JAMES F. CROW, HANS LANDSBERG, EDWARD NEY, FRANK W. PUTNAM, MAXINE SINGER, PAUL E. WAGGONER, F. KARL WILLENBROCK

1979: E. PETER GEIDUSCHEK, WARD GOODENOUGH, N. BRUCE HANNAY, MARTIN J. KLEIN, FRANKLIN A. LONG, NEAL E. MILLER, JEFFREY J. WINE

Publisher

WILLIAM D. CAREY

Editor

PHILIP H. ABELSON

Editorial Staff

Managing Editor

ROBERT V. ORMES

Business Manager

HANS NUSSBAUM

Assistant Managing Editor

JOHN E. RINGLE

Production Editor

ELLEN E. MURPHY

News and Comment: BARBARA J. CULLITON, *Editor*; LUTHER J. CARTER, CONSTANCE HOLDEN, DEBORAH SHAPLEY, R. JEFFREY SMITH, NICHOLAS WADE, JOHN WALSH. *Editorial Assistant*, SCHERRAINE MACK

Research News: ALLEN L. HAMMOND, *Editor*; RICHARD A. KERR, GINA BARI KOLATA, JEAN L. MARK, THOMAS H. MAUGH II, WILLIAM D. METZ, ARTHUR L. ROBINSON. *Editorial Assistant*, FANNIE GROOM

Associate Editors: ELEANORE BUTZ, MARY DORFMAN, SYLVIA EBERHART, JUDITH GOTTLIEB

Assistant Editors: CAITILIN GORDON, RUTH KULSTAD, LOIS SCHMITT, DIANE TURKIN

Book Reviews: KATHERINE LIVINGSTON, *Editor*; LINDA HEISERMAN, JANET KEGG

Letters: CHRISTINE KARLIK

Copy Editors: ISABELLA BOULDIN, OLIVER HEATWOLE

Production: NANCY HARTNAGEL, JOHN BAKER; YA LI SWIGART, ELEANOR WARNER; JEAN ROCKWOOD, LEAH RYAN, SHARON RYAN

Covers, Reprints, and Permissions: GRAYCE FINGER, *Editor*; CORRINE HARRIS, MARGARET LLOYD

Guide to Scientific Instruments: RICHARD SOMMER

Assistant to the Editors: RICHARD SEMIKLOSE

Membership Recruitment: GWENDOLYN HUDDLE

Member and Subscription Records: ANN RAGLAND

EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Area code 202. General Editorial Office, 467-4350; Book Reviews, 467-4367; Guide to Scientific Instruments, 467-4480; News and Comment, 467-4430; Reprints and Permissions, 467-4483; Research News, 467-4321; Cable: Advancesci, Washington. For "Instructions for Contributors," write the editorial office or see page xv, *Science*, 30 September 1977.

BUSINESS CORRESPONDENCE: Area Code 202. Business Office, 467-4411; Circulation, 467-4417.

Advertising Representatives

Director: EARL J. SCHERAGO

Production Manager: MARGARET STERLING

Advertising Sales Manager: RICHARD L. CHARLES

Marketing Manager: HERBERT L. BURKLUND

Sales: NEW YORK, N.Y. 10036: Steve Hamburger, 1515 Broadway (212-730-1050); SCOTCH PLAINS, N.J. 07076: C. Richard Callis, 12 Unami Lane (201-889-4873); CHICAGO, ILL. 60611: Jack Ryan, Room 2107, 919 N. Michigan Ave. (312-DE-7-4973); BEVERLY HILLS, CALIF. 90211: Winn Nance, 111 N. La Cienega Blvd. (213-657-2772); DORSET, VT. 05251: Fred W. Dieffenbach, Kent Hill Rd. (802-867-5581)

ADVERTISING CORRESPONDENCE: Tenth floor, 1515 Broadway, New York, N.Y. 10036. Phone: 212-730-1050.

Policy for Energy

The recent (13-17 February) Annual Meeting of the American Association for the Advancement of Science in Washington, D.C., included 139 symposia with some 180 half-day sessions. Many of these were policy-oriented and especially appropriate for the locale. One major theme was energy, which was addressed in 12 sessions. Conservation and renewable energy sources were strongly represented. Of particular interest was a session on "New Batteries in Energy Use of the Future." Substantial progress is being made in the development of batteries which have higher energy storage per unit weight than those employing lead and which utilize cheap, abundant materials. But the path from laboratory to large-scale use will require a decade or more. It is also clear that major practical effects from conservation and from renewable energy sources will only come slowly.

While it is essential that great efforts be made to achieve distant goals, the nation must also meet the day-to-day demands of the next 10 years. A number of speakers emphasized that for the next decade the major sources of energy will be oil, natural gas, coal, and nuclear reactors. Of these, oil will continue to be the most important.

Considerable apprehension was expressed as to whether sufficient supplies of petroleum will be available during the coming years. It was noted that about 75 percent of the oil that is exported by producers comes from the Middle East. An Arab-Israeli conflict is only one of many potential developments that might lead to interruption of supplies.

The present weakness of the dollar was also mentioned, though perhaps without as much emphasis as the matter warrants. During the past 6 months the dollar has declined about 17 percent with respect to strong currencies, while the price of gold has increased nearly 25 percent. Most of these changes have occurred in the past 3 months. This weakness attests to a loss of confidence in the dollar occasioned by a huge trade deficit arising out of soaring oil imports. As foreigners continue to convert their holdings into stronger currencies, they place further pressure on the dollar. The ingredients for a damaging panic are present. Even should this not occur, weakness of the dollar is likely to persist while the value of oil reserves is likely to increase. The Arabs may decide to conserve their nonrenewable wealth.

It is possible that adverse political and financial developments will not occur. However, another cloud has appeared in the form of questions concerning the volume of supplies that might be obtained from Saudi Arabia, which has the largest reserves. Optimists had assumed that the Saudis would be willing to more than double their current production. Several sources now take the view, on technical grounds, that such an increase is unlikely. But if current trends continue the United States will be seeking substantially increased imports. The Carter Energy Plan projected imports of as little as 6 million barrels per day in 1985, but experts now predict imports of 11 to 12 million barrels per day at that time.

Because of increased world demand without commensurate increase in supplies, a number of speakers at the AAAS predicted that there will be another "oil crisis." Accordingly, it was repeatedly recommended that ways be found to construct and operate a few full-scale plants designed to produce oil from shale, liquids from coal, and methane from lignite or coal.

Neither the Congress nor events have been kind to the Carter Energy Plan. The Administration has recently stated that it will be coming up with a comprehensive plan for production of synthetic fuels. The probable time scale for action though is slow. After a years' study, recommendations will be made to Congress where time-consuming maneuvers will follow. In contrast, were the Administration to move urgently to expedite off-shore drilling and to clear up environmental uncertainties for shale oil, it could cut several years from the time needed to obtain substantial new supplies.

—PHILIP H. ABELSON

Science

Policy for Energy

PHILIP H. ABELSON

Science **199** (4333), 1035.

DOI: 10.1126/science.199.4333.1035

ARTICLE TOOLS

<http://science.sciencemag.org/content/199/4333/1035.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.