

353-03570  
005**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**

1974

ALFRED BROWN	FRANK W. PULNAM
JAMES F. CROW	MAXINE F. SINGER
SEYMOUR S. KELY	GORDON WOLMAN
FRANK PRESS	

1975

HERBERT S. GUTOWSKY	DONALD LINDSLEY
N. BRUCE HANNAY	RUTH PATRICK
DONALD KENNEDY	RAYMOND H. THOMPSON
DANIEL E. KOSHLAND, JR.	

**Editorial Staff***Editor***PHILIP H. ABELSON**

<i>Publisher</i>	<i>Business Manager</i>
WILLIAM BEVAN	HANS NUSSBAUM

*Managing Editor*: ROBERT V. ORMES*Assistant Editors*: ELLEN E. MURPHY, JOHN E. RINGLE*Assistant to the Editor*: NANCY TEIMOURIAN*News and Comment*: JOHN WALSH, LUTHER J. CARIER, DEBORAH SHAPLEY, ROBERT GILLETTE, NICHOLAS WADE, CONSTANCE HOLDEN, BARBARA J. CULLITON, SCHERRAINE MACK*Research News*: ALLEN L. HAMMOND, WILLIAM D. METZ, THOMAS H. MAUGH II, JEAN L. MARK, ARTHUR L. ROBINSON*Book Reviews*: SYLVIA EBERHART, KATHERINE LIVINGSTON, ANN O'BRIEN*Cover Editor*: GRAYCE FINGER*Editorial Assistants*: MARGARET ALLEN, ISABELLA BOULDIN, BLAIR BURNS, ELEANORE BUIZ, MARY DORFMAN, JUDITH GIVELBER, CORRINE HARRIS, NANCY HARINAGEL, OLIVER HEATWOLE, CHRISTINE KARLIK, GINA BARI KOLATA, MARGARET LLOYD, JEAN ROCKWOOD, PATRICIA ROWE, LEAH RYAN, LOIS SCHMITT, MICHAEL SCHWARTZ, RICHARD SEMIKLOSE, YA LI SWIGART*Guide to Scientific Instruments*: RICHARD SOMMER*Membership Recruitment*: GWENDOLYN HUDDLE;  
*Subscription Records and Member Records*: ANN RAGLAND**Advertising Staff**

<i>Director</i>	<i>Production Manager</i>
EARL J. SCHERAGO	MARGARET STERLING

*Advertising Sales Manager*: RICHARD L. CHARLES

Sales: NEW YORK, N.Y. 10036; Herbert L. Burkland, 11 W. 42 St. (212-PE-6-1858); 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)

EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Phones: (Area code 202) Central Office: 467-4350; Book Reviews: 467-4367; Business Office: 467-4411; Circulation: 467-4417; Guide to Scientific Instruments: 467-4480; News and Comment: 467-4430; Reprints and Permissions: 467-4483; Research News: 467-4321; Reviewing: 467-4440. Cable: Advancesci, Washington. Copies of "Instructions for Contributors" can be obtained from the editorial office. See also page xv, *Science*, 28 December 1973. ADVERTISING CORRESPONDENCE: Room 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE-6-1858.

**No Easy Way Out of Energy Crisis**

All over the world, peoples and governments have been unable to respond realistically to the sudden changes in the availability and price of energy. In the United States, a search for scapegoats is being conducted on the assumption that if the culprits can be identified and chastised, the problem will go away. On the international scene, the consuming nations have been adopting an every-man-for-himself approach that guarantees additional hardship for all.

Many stories in the mass media have the common thread that the crisis was created and is continuing because oil companies are withholding oil in order to get higher profits. Thus, the solution to our problems is simple: Force the companies to disgorge! Escape from the current travail will not be so easy, nor will it be rapid. There is solid evidence that the major sins of the oil companies are not underproduction and overstorage today, but an earlier, opposite shortcoming. For decades, oil was generally produced at the maximum allowable rate. At the same time, the industry did not create substantial storage facilities or inventories when we were becoming dependent on foreign oil.

The American Petroleum Institute has long compiled weekly data on the production, refining, and distribution of oil. The patterns of reporting were established at a time when there was no incentive to be other than honest. Moreover, the figures were corroborated by surveys of the U.S. Bureau of Mines. These figures showed that U.S. production of crude petroleum reached its peak in 1970, at 10.0 million barrels per day, and has been slowly diminishing since. Prior to the present crisis, it had dropped to 9.3 million barrels per day; recently production has been 9.1 million barrels per day.

In their policies with respect to storage facilities and inventories, the oil companies have been largely guided by an attempt to hold down costs. It is expensive to maintain large inventories. So assiduous have the companies been in this respect that they have endangered the national security. Inventories of some of the products, such as gasoline, would, if fully available, last about 30 days. However, only a part is available. Some is in pipelines, some is in tankers, and some is being processed. The companies do not have the huge excess storage capacity to hide significant amounts of oil. Recently, there have been tales of speculators' storing gasoline in vacant filling stations. A typical older filling station has a capacity of 12,000 to 15,000 gallons. Weekly U.S. consumption is 1,750 million gallons. The reported hoardings are little more than drops in the bucket in comparison.

Others who have searched for an easy way out of the energy crisis have pointed to the possibility of a quick end to the Arab oil embargo. This may or may not come soon, and when it does, it may or may not lead to substantially greater supplies of oil. If production is to be increased rapidly, the increase must come largely from the Arabian Peninsula. There, in Saudi Arabia, Kuwait, and some smaller states, is about half the free world's oil. These states, with a total population of less than 10 million, are enjoying unprecedented power. With return per barrel having quadrupled over that of a year ago, they have far more income than they can use. Kuwait, with a population of 900,000, will receive about \$7 billion this year. An increase in production would not appear to serve any useful purpose for them.

More than a month has passed since the big price increases were announced. The lack of concerted, constructive response by the billions of people who must pay can only encourage the producing countries to tighten the screws again and again.—PHILIP H. ABELSON