

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

1982: WILLIAM ESTES, CLEMENT L. MARKERT, JOHN R. PIERCE, BRYANT W. ROSSITER, VERA C. RUBIN, MAXINE F. SINGER, PAUL E. WAGGONER, ALEXANDER ZUCKER

1983: FREDERICK R. BLATTNER, BERNARD F. BURKE, CHARLES L. DRAKE, ARTHUR F. FINDEIS, E. PETER GEIDUSCHEK, GLYNN ISAAC, MILTON RUSSELL, WILLIAM P. SLICHTER, JOHN WOOD

Publisher

WILLIAM D. CAREY

Associate Publisher: ROBERT V. ORMES

Editor

PHILIP H. ABELSON

Editorial Staff

Assistant Managing Editor: JOHN E. RINGLE

Production Editor: ELLEN E. MURPHY

Business Manager: HANS NUSSBAUM

News Editor: BARBARA J. CULLITON

News and Comment: WILLIAM J. BROAD, LUTHER J. CARTER, CONSTANCE HOLDEN, ELIOT MARSHALL, COLIN NORMAN, R. JEFFREY SMITH, MARJORIE SUN, NICHOLAS WADE, JOHN WALSH

Research News: RICHARD A. KERR, GINA BARI KOLATA, ROGER LEWIN, JEAN L. MARX, THOMAS H. MAUGH II, ARTHUR L. ROBINSON, M. MITCHELL WALDROP

Administrative Assistant, News: SCHERRAINE MACK; Editorial Assistants, News: FANNIE GROOM, CASSANDRA WATTS

Senior Editors: ELEANORE BUTZ, MARY DORFMAN, RUTH KULSTAD

Associate Editors: SYLVIA EBERHART, CAITILIN GORDON, LOIS SCHMITT

Assistant Editors: MARTHA COLLINS, STEPHEN KEPPLER, EDITH MEYERS

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

Letters: CHRISTINE GILBERT

Copy Editor: ISABELLA BOULDIN

Production: NANCY HARTNAGEL, JOHN BAKER; ROSE LOWERY; HOLLY BISHOP, ELEANOR WARNER; JEAN ROCKWOOD, LEAH RYAN, SHARON RYAN, ROBIN WHYTE

Covers, Reprints, and Permissions: GRAYCE FINGER, Editor; GERALDINE CRUMP, CORRINE HARRIS

Guide to Scientific Instruments: RICHARD G. SOMMER
Assistants to the Editors: SUSAN ELLIOTT, DIANE HOLLAND

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 "Information for Contributors," write to the editorial office or see page xi, *Science*, 18 December 1981.

BUSINESS CORRESPONDENCE: Area Code 202. Membership and Subscriptions: 467-4417.

Advertising Representatives

Director: EARL J. SCHERAGO

Production Manager: GINA REILLY

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. (312-337-4973); 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.

Fostering National Prestige

Prestige is an important factor in human interaction at all levels but especially in foreign affairs. In these troubled days when our alliances are under strain prestige is especially important. Without it even a trillion dollar defense program will lack credibility. Insofar as the buildup lacks credibility it will be a waste of money, for an object of the game is to convince the other fellow that an attack would be too risky.

A decade ago the United States enjoyed tremendous respect for its highly visible successes in civilian science and technology, but preeminence has been lost in some areas and is eroding in others. Failures of our ability to compete have been conspicuous in the automobile and steel industries. The troubles and delays with the space shuttle have detracted from our stature. In contrast, U.S. science has remained a major source of international prestige. However, instead of fostering this valuable asset, the Administration compiled a sorry record during its first year.

Budget cuts in many fields of science translated into severe cuts in terms of constant dollars. Months of uncertainty about budgets had a demoralizing effect. The 12 percent meat-ax cut proposed in September indicated a complete insensitivity to the many important roles of science. From the standpoint of international affairs one of the worst decisions was to curtail our activities in the glamorous field of planetary exploration. Abandonment of our share of the solar polar mission has raised doubts that persist about the reliability of U.S. commitments.

In a recent visit to France and Germany I found a different atmosphere for science than in the United States. Morale was high. New ideas, new approaches, and new equipment were evident. While much attention was focused on immediate needs, there were long-range plans to achieve world leadership. This was particularly true in France, where a new government is determined to improve capabilities in science and technology.

The official French policy for science represents a quickening of a trend already in being. As a minister under Valéry Giscard d'Estaing, Pierre Aigrain had charted a course in which support for science was to increase by 6 percent per year beyond inflation (*Science*, 1 August 1980, p. 545). Apparently in parliamentary testimony before a committee headed by Socialist Jean-Pierre Chèvenement, Aigrain had been persuasive. In any event, after the Socialists took office Chèvenement, one of the most powerful figures in French politics, chose to take responsibility for science and technology. In the interval since the May 1981 election he has maneuvered successfully to expand his dominion over R & D wherever they are governmentally sponsored. He has taken control of their budgets. He has announced plans to increase spending on R & D for the next 5 years at the rate of 8 percent per year or more over inflation. The program is likely to be implemented. For a time before the election, the selection of François Mitterrand as the Socialist nominee was in doubt. Efforts by Chèvenement were crucial in obtaining the nomination for Mitterrand. One of Chèvenement's activities during the past 8 months has been to arrange and conduct a big public relations campaign for science and technology. Large meetings were held in the provinces, culminating in a gathering in Paris on 13 to 16 January attended by 4000 of the most influential political, industrial, educational, and union leaders of the country.

There is a strain of anti-Americanism in French attitudes, or perhaps more precisely a determination to be independent of foreign dominance. This attitude has already led to a bid for world leadership in nuclear energy which many regard as successful. It has also led to development of the Ariane satellite launcher, which will be used to place many communications satellites in orbit. The French are embarking on a major effort to strengthen education in science and technology at all levels. As part of the program they plan to install computers in each of the more than 10,000 high schools of France.—PHILIP H. ABELSON