

AMERICAN ASSOCIATION
FOR THE
ADVANCEMENT OF SCIENCE

Board of Directors

CHAUNCEY D. LEAKE, *President*
THOMAS PARK, *President Elect*
PAUL E. KLOPSTEG, *Retiring President*
HARRISON BROWN
H. BENTLEY GLASS
MARGARET MEAD
DON K. PRICE
MINA REES
ALFRED S. ROMER
WILLIAM W. RUBEY
ALAN T. WATERMAN
PAUL A. SCHERER, *Treasurer*
DAEL WOLFFLE, *Executive Officer*

Editorial Board

KONRAD B. KRAUSKOPF H. BURR STEINBACH
EDWIN M. LERNER WILLIAM L. STRAUS, JR.
EDWARD L. TATUM

Editorial Staff

DAEL WOLFFLE, *Executive Officer*
GRAHAM DUSHANE, *Editor*
JOSEPH TURNER, *Assistant Editor*
ROBERT V. ORMES, *Assistant Editor*

CHARLOTTE F. CHAMBERS, SARAH S. DEES, NANCY
S. HAMILTON, OLIVER W. HEATWOLE, YUKIE
KOZAI, HOWARD MARGOLIS, ELLEN E. MURPHY,
ELEANOR D. O'HARA, BETHSABE PEDERSEN, NANCY
L. TEIMOURIAN, DAVID A. TEMELES, LOIS W.
WOODWORTH

EARL J. SCHERAGO, *Advertising Representative*



SCIENCE, which is now combined with THE SCIENTIFIC MONTHLY, is published each Friday by the American Association for the Advancement of Science at National Publishing Company, Washington, D.C. The joint journal is published in the SCIENCE format. SCIENCE is indexed in the *Reader's Guide to Periodical Literature*.

Editorial and personnel-placement correspondence should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D.C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors. For detailed suggestions on the preparation of manuscripts and illustrations, see *Science* 125, 16 (4 Jan. 1957).

Display-advertising correspondence should be addressed to SCIENCE, Room 740, 11 West 42 St., New York 36, N.Y.

Change of address notification should be sent to 1515 Massachusetts Ave., NW, Washington 5, D.C., 4 weeks in advance. If possible, furnish an address label from a recent issue. Give both old and new addresses, including zone numbers, if any.

Annual subscriptions: \$8.50; foreign postage, \$1.50; Canadian postage, 75¢. Single copies, 35¢. Cable address: Advancesci, Washington.

Copyright 1960 by the American Association for the Advancement of Science.

Reverse in Geneva

One effect of the summit collapse in Paris on the negotiations for a ban on nuclear weapons testing in Geneva was the reversal by the Soviet delegation of its decision to go along with the United States proposal that more research be conducted on ways to control small underground explosions. Soviet scientists had said that although the Soviet Union would not conduct experiments with nuclear devices, there would be a three-year program using chemical explosives. But about three weeks after the summit collapse, the Soviet delegation announced at the political level that there would be no tests of any kind in the Soviet Union and that Soviet scientists had not been empowered to speak in the name of the Soviet government.

In seeking better ways to detect small underground tests, United States scientists had, for their part, proposed exploding a series of nuclear devices. Soviet scientists had objected to some experiments in the American series, but they agreed to others on condition that adequate safeguards be provided to assure them that no results of military value could be gained along with results of use in improving the design of a control system.

By way of assurance, the U.S. has subsequently offered to share all test results with the U.S.S.R. and to admit Soviet observers to the test site. The U.S. has also offered to put immediately on deposit, under international supervision, boxes containing all the bombs to be used in the research program, and so to demonstrate that results from devices exploded earlier in the series could not be used as the basis for design of the devices exploded later. The Soviets have demanded, however, precisely what the Americans have not offered and what is against the law barring the disclosure of nuclear secrets—namely, a look at the devices themselves. There may be ways for the United States to escape from this predicament, but any proposal is easily countered by a person determined to offer objections. A proposal to explode Soviet bombs instead of American bombs, for example, could be construed by Soviet negotiators as a thinly disguised plan to spy out the characteristics of Soviet weapons.

The U.S. is now mounting an effort to determine just what Soviet intentions are on a test ban. It is important, of course, to see whether we actually can specify safeguards for our research program that will prove acceptable to the U.S.S.R., but the course of the technical talks is ample evidence that the Soviets are as informed as we are about the limits of the present technology of test controls and about the advantages and disadvantages of a research program. Reversal of the Soviet stand on its own research program, with no explanation offered, suggests that the Soviets have found in their demand for assurances an opportunity to stall negotiations while making it look as if it is we who are doing the stalling.

Accordingly, in the new effort to determine Soviet intentions, the United States delegation should focus its efforts on the political level. We should push for answers on such familiar matters as the number of on-site inspections the Soviets will permit and the nationality of the staff at the control posts—questions which the summit meeting was supposed to have answered. It is on the political level that the more fundamental differences lie. And it is here that we are in the better position.—J.T.