

## U.S. scientists serve notice about Sakharov

Life has never been easy for Soviet citizens who dissent from official government policy, but lately it seems to be harsher than it has been in a long time. The campaign against Academician Andrei Sakharov, a physicist whose work is credited with the achievement of the Soviet hydrogen bomb, is a case in point.

Sakharov's most recent sin, it seems, is telling Western newsmen that the current diplomatic detente between the United States and the Soviet Union is no good unless it results in some liberalization of internal Soviet policy. For this he has been subjected to a campaign of vilification in the Soviet press, including especially a public letter signed by some 40 of his fellow members of the Academy of Sciences of the U.S.S.R.

The anti-Sakharov campaign, coming as it does on top of recent actions against astronomer Evgeny Levich (SN: 7/28/73, p. 51) and geneticist Zhores A. Medvedev (SN: 8/18-25/73, p. 105), has caused wide concern in Western scientific circles. Last weekend the council of the U.S. National Academy of Sciences, of which Sakharov is a foreign associate member, decided to make its feelings known in a public telegram to M. V. Keldysh, president of the U.S.S.R. Academy. The telegram points out how happy everyone was with the diplomatic detente and the resultant agreements for scientific exchanges and cooperation. It notes that the cooperation depends on mutual respect for human freedoms, and finally comes to a not so thickly veiled threat with the words: "Were Sakharov to be deprived of his opportunity to serve the Soviet people and humanity, it would be difficult to imagine successful fulfillment of American pledges of binational scientific cooperation, the implementation of which is entirely dependent upon the voluntary effort and goodwill of our individual scientists and scientific institutions."

The American scientists are particularly disturbed by the participation of many prominent Soviet scientists in the campaign against Sakharov. The telegram makes apologetical mention of a similar American case: The failure of American scientists to rally to the support of the late J. R. Oppenheimer when he was subjected to political attack during the Joseph McCarthy era.

Since the National Academy of Sciences is a quasiofficial organization, the telegram is something of an embarrassment to foreign policymakers, who are said to be angry over it. But the first Administration response came not from the foreign policy side but

from the domestic. Health, Education and Welfare Secretary Caspar W. Weinberger told a press conference on his return from a trip to the Soviet Union and Poland that American scientists should cooperate with their Soviet counterparts rather than "firing brickbats through the daily press." □

## Fence mending theme for science at Bicentennial

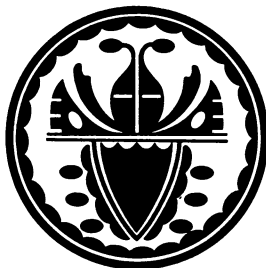
Representatives of universities, industry and the press have mapped out a program of reconciliation between science and disenchanted segments of the public as the central theme for science and technology participation in the 1976 American Bicentennial.

Calling the Bicentennial an ideal forum for "rebuilding a reputation," participants in a planning conference sponsored by the National Science Foundation suggested that organizations planning exhibitions on technical subjects for the Bicentennial concentrate on overcoming the communications gap dividing sciences from the humanities and scientists from the lay public.

"The vast majority of the electorate and most of its representatives are scientifically and technologically illiterate," says Norman Hilberry of the University of Arizona in the introduction to the just-released report on the Tucson conference. To meet the challenge of this illiteracy, he says, a basic communications gap must be overcome and a means of evaluating the costs and benefits of new technological developments that is both "realistic and acceptable by the public" must be established.

The conference adopted an equally challenging list of themes and suggested projects that participants hope will stimulate exhibitors.

Some projects are already under way. The Smithsonian Institution and the National Science Foundation will sponsor a television series on the history of science and technology in the United States. Delaware will build a new museum of science with emphasis on chemistry. The public will get a chance to play with the latest scientific gadgets in Philadelphia, where computer animation, electronic music and craft techniques will be displayed. A wetlands wilderness park will be opened in Louisiana. And, on the practical



*Pueblo symbol suggesting unity in nature, proposed by science Bicentennial group.*



NASA

## First globe of Mars

*Scientists at the Jet Propulsion Laboratory in Pasadena examine a four-foot globe of Mars put together from 1,500 photographs taken by Mariner 9. To make the photo-mosaic, the pictures, mostly angle shots, had to be rectified by a computer, made identical in scale and developed with the same degree of contrast. This took seven months. Two more globes, one four-foot and one six-foot in diameter, are also being made. Scientists are Elmer Christensen (right) and Edwin Pounder.*

side, Colorado will sponsor a contest on environmental design and explore existing technology to see if a mobile car-body crusher can clear the state of auto hulks by 1976.

Projects suggested by conference participants for future development were organized around various themes, such as Harmony of Man and Nature, Alternate Futures, and Science for the People—"better communications, understanding and mutual involvement." Special attention was given to the ideas of energy and changes in society—subjects participants felt were generally misunderstood by the lay public.

Specific project suggestions include debates on scientific issues to be broadcast on national television, a series of animated films explaining scientific concepts, demonstration of holography by depicting the signing of the Declaration of Independence in three dimensions, and suspension of all immigration quotas for 1976—to demonstrate the "universality" of science and the contributions made by immigrants. □