

F. A. S. NEWSLETTER

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— — — — — to provide information and to stimulate discussion. Not to be attributed as official FAS policy unless specifically so indicated.

STATEMENT OF THE FEDERATION OF AMERICAN SCIENTISTS ON THE DIRECTOR OF NSF

It now appears clear that Dr. Franklin A. Long, vice president for research and advanced study at Cornell University, was offered the job of Director of the National Science Foundation by the Nixon Administration and that it was subsequently withdrawn because of Dr. Long's interest in arms control and disarmament and his opposition to the Sentinel ABM system. The President, in his press conference on April 18, admitted that these were essentially the facts.

The choice of Dr. Long for the directorship was an excellent one. He is a highly respected scientist and is widely regarded as a very competent administrator. Strong leadership for NSF is essential to the health of American science. It supports a sizable fraction of the research done in universities and the training of research scientists.

The NSF, since its inception, has operated as an agency free from political pressure or design. Awarding grants and appointments and promotions at all levels have been free from political restrictions. The Federation of American Scientists believes that these decisions should continue to be made on the basis of scientific merit and competence and should be free from any political considerations.

It will be difficult to find a director for NSF who is Dr. Long's equal, particularly if he must support the Administration's policies with respect to the ABM and other military matters.

An aspect of the affair that is of even greater concern to the scientific community that the loss of Dr. Long's services in NSF is that the choice of scientists for important and influential positions in government, even those which are not directly related to the military, is being made on political grounds rather than on the basis of scientific and administrative competence. If this continues, the Nixon Administration will have so-called scientific advisors who are trained seals rather than intelligent men of independent scientific judgment.

The FAS believes that the Nixon Administration can regain the confidence lost by this serious blunder only by reversing its decision and confirming Dr. Long as NSF's director. We further urge our scientific colleagues who may be considered for such non-military positions to insist, as a condition for acceptance, that such appointments be free of political tests. (F.A.S. press release, 25 April 1969.)

FAS JOINS COALITION

The Federation of American Scientists passed a motion at its April Council meeting to join the Coalition on National Priorities and Military Policy, which is opposing the deployment of the ABM system. The organization consists of member organizations, including at last count SANE, ADA, Southern Christian Leadership Conference, United Presbyterian Church in the USA (Office of Church and Society), National Council of Churches, United Church of Christ, Union of American Hebrew Congregations, William Penn House, Unitarian Universalist Association, United Methodist Board of Christian Social Concerns, Teachers Committee for Peace in Vietnam, Women's International League for Peace and Freedom, Women Strike for Peace (D.C.), United World Federalists, Friends Committee on National Legislation, Council for Humanist and Ethical Concerns, Student World Federalists.

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PEACEFUL ATOMIC BLASTS ARE CRITICIZED

Misgivings and objections have arisen to put into question the future of peaceful atomic blasts in the United States and elsewhere. Dr. Kenneth S. Pitzer, President of Stanford University and former Director of Research for the Atomic Energy Commission, remarked in a recent speech on the damaging consequences of underground nuclear explosions in Nevada: two moderately large underground nuclear explosions in Nevada last year resulted in a multitude of small earthquakes. Plans to explode nuclear devices in the Aleutian Islands should be evaluated in the light of the natural earthquake activity in that area, according to Dr. Pitzer. He cited the danger "that a damaging earthquake might be triggered" and called for a "much more substantial public hearing before large tests are held."

Dr. Pitzer called a report on safety considerations of such explosions, prepared by the Nevada Operations Office of the AEC, inadequate. He said the various aspects of the question should be studied by scientists who have no affiliation with the AEC. "This is a matter of judgment as well as of expertise. Consequently, conflict of interest is an appropriate consideration."

The earthquake to which Dr. Pitzer referred are continuing, although most cannot be detected without instruments. Slippage and earthquakes are occurring to a depth of several miles in areas where two one-megaton blasts took place last year.

Pitzer criticized present policy-making machinery which "allowed technological developments to become entrenched before their consequences had been properly and 'humanistically' evaluated."

In Vienna, Dr. Sigvard Eklund, Director General of the International Atomic Energy Agency, warned nonnuclear countries against "premature optimism" about nuclear explosions for peaceful purposes. He insisted that the immediate value of such explosions had been exaggerated for "political reasons" and that "a word of caution is necessary." Knowledge of how to conduct nuclear explosions for civil engineering purposes is in its infancy, he said. "Nonnuclear countries would derive more benefit from isotopes and other nuclear aids to medicine." Dr. Eklund concluded that advanced industrial countries will benefit most from nuclear powered generation of electricity in the near future. (N.Y. Times, 15 and 16 April 1969.)

SENATE RATIFIES NONPROLIFERATION TREATY

The Senate ratified the treaty against the spread of nuclear weapons to nations that do not now have them, by a vote of 83 to 15. President Nixon had opposed ratification of the treaty last fall because of the Russian invasion of Czechoslovakia, and urged its ratification at the beginning of this year.

The treaty binds the U.S., Britain and the Soviet Union not to give nuclear weapons or weapons-making assistance to nations that don't have them now. France and China have refused to be parties to the treaty. Signatory nations that don't currently have nuclear weapons are bound by the treaty not to make them, and to permit international inspection of their nuclear power reactors and other peaceful projects. The treaty has not been signed by such key countries as West Germany, India and Israel, but the State Department hopes U.S. ratification will influence Germany and perhaps some others to join. (Wall Street Journal, 14 March 1969.)

DDT BANNED IN SWEDEN, SOME STATES

Hearings on the use of DDT have occurred in many parts of the United States and the world in the past few months, and the use of DDT as a pesticide has been barred in Sweden, Michigan, Arizona, and Wisconsin, and in New York City public parks. At the same time, the Food and Drug Administration has raised the limit of allowable DDT in edible fish from 0 to 5 parts per million.

Sweden's poisons board has announced that general use of DDT will be banned for a two-year period starting January 1, 1970, while research into effects of the insecticide is conducted. None will be allowed in farming, forestry, or household uses, although there will be exceptions made for certain uses against beetles.

Michigan agriculture officials announced in April that the use of DDT would be halted, but they were not immediately certain of the methods that would be used to institute the ban—whether existing supplies of DDT would be destroyed, or whether the ban would begin at some future date. DDT as a mosquito-control chemical was outlawed in Michigan a year ago.

A one-year ban on DDT has been in effect in Arizona since the middle of January, and officials there have suggested that the moratorium be extended through 1970 in some parts of the state.

Wisconsin, Michigan, and Indiana signed an agreement last summer calling for stricter controls on all pesticides which may eventually pollute Lake Michigan. The Illinois legislature is also considering a bill to ban the use of DDT. A ban in Pennsylvania was suggested by a state senate committee there. Senator Nelson of Wisconsin said he planned to seek legislation outlawing the insecticide nationally.

It was a harvest of coho salmon from Lake Michigan which resulted in the FDA change in DDT tolerance levels. Salmon caught in March contained DDT concentrations ranging from 13 to 19 parts per million. Previously, Federal regulations had banned any DDT in fish marketed in interstate commerce. The interim tolerance "is intended to protect the public from excessive levels of DDT in fish while a full scientific review is completed," according to Dr. Herbert Ley, Jr., FDA commissioner. "Fish carrying residues higher than 5 parts per million will be subject to seizure."

Carl J. Schiff, Director of Horticulture for the City of New York, announced that he would no longer permit the use of DDT spraying in city parks because it was "dangerous." He was in the process of appraising a two-year experiment in controlling pests with natural predators such as lady bugs and preying mantes. He remarked that he had first been skeptical of the natural control project, but was attempting to change the city park system's methods because he could see "the handwriting on the wall because I am almost sure the State of New York will prohibit the use of such chemical poisons as DDT." (*N.Y. Times*, 18 April 1969 and 27 May 1969; *Wall Street Journal*, 4 March 1969, 7 and 23 April 1969.)

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Chairman Cameron B. Satterthwaite

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The FAS, founded in 1946, is a national organization of scientists and engineers concerned with the impact of science on national and world affairs.

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Since the controversy on the ABM has continued and grown, FAS members may be interested in the development of other organizations opposed to the system under discussion. Although the Gallup Poll indicated 60% of the population undecided about the ABM at the end of April, the opposition to it was more organized and vocal than that on almost any other recent issue. The following groups work toward the dissolution of ABM plans:

National Citizens Committee Concerned about Deployment of the ABM

18 E. 48th St., Suite 1104
New York, N. Y. 10017
212-838-4700

Coalition on National Priorities and Military Policy

120 Maryland Ave., N.E.
Washington, D. C. 20002
202-543-1151

New England Citizens Committee Against the ABM

11 South St.
Boston, Mass. 617-482-6155

Council for A Livable World

1346 Connecticut Ave.
Washington, D. C. 20036
202-265-3800

Michigan Stop ABM Committee

65 East Columbia
Detroit, Michigan
962-0340

North Dakota Citizens Against ABM

705 North University Drive
Fargo, N. D. 58102
701-237-3676

Colorado Action Committee on National Priorities

P.O. Box 3536
Boulder, Colo. 80302

National Federation of Priest Councils

1307 South Wabash
Chicago, Illinois
312-427-0115

Clergy and Laymen Concerned about Peace in Vietnam

475 Riverside Drive
New York, N. Y. 10027
212-749-8518

Womanpower-in-Action

230 Park Avenue
New York, N. Y. 10017
212-983-8400

Chicago Business Executives Move for Vietnam Peace

116 South Michigan Ave.
Chicago, Ill. 60603, 312-236-1577

Another Mother for Peace

407 North Maple Drive
Beverly Hills, Calif. 213-278-3476

Bay Area Opposition to ABM Committee

50 Oak Street
San Francisco, Calif.

Florida Coalition on National Priorities

141 N.E. Third Ave.
Miami, Fla. 33132

Clearinghouse on National Priorities

1095 South Shore Drive
Kansas City, Mo. 64151
816-741-5096

New Democratic Coalition of Ohio

3756 Lee Rd., Rm.
Shaker Heights, Ohio 44128
216-751-9700 or 371-9959

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- Ohio Action Conference on National Priorities**
1990 Ford Road, Suite 407
Cleveland, Ohio, 216-421-8468
- Philadelphia Action on National Priorities**
2006 Walnut St., 3rd Floor
Philadelphia, Pa. 19103
- New York Coalition on National Priorities**
381 Park Ave., S., Rm. 701
New York, N. Y., 212-889-3184
- Scientists for Social and Political Action**
P.O. Box 3704
Stanford, Calif. 94305
- National Citizens' Lobby**
2035 Fifth Avenue
New York, N. Y. 10035
212-831-6561
- National Religious Committee Opposing ABM**
18 E. 48th St., Suite 1104
New York, N.Y. 10017
212-838-4700
- Americans for Democratic Action**
1424 16th St., N.W.
Washington, D. C. 20036
202-265-5771
- Federal Employees for a Democratic Society**
FEDS
P.O. Box 9075
Washington, D. C. 20003
- Peace Committee of Philadelphia**
1520 Race St.
Philadelphia, Pa. 19102
- Chicagoans Against the ABM**
410 South Michigan Ave., Rm. 828
Chicago, Ill. 60605
312-427-0290
- Ad Hoc Committee of New Yorkers Against ABM**
342 Madison Ave., Rm. 711
New York, N. Y. 10017
- Maryland Citizens' Coalition to Stop ABM**
Hon. Maelyn McCarty, Jr.
2826 Maryland Ave.
Baltimore, Md. 21218
- The New Mexico Democratic Council**
Burt Lindsay
2910 Utah St.
Albuquerque, N. M.
- New England Committee for Nonviolent Action**
RFD 1, Box 197B
Voluntown, Conn. 06384
- Oakland County SCRAM**
16231 Buckingham
Birmingham, Michigan
- Marin Citizens Against the ABM**
121 Woodland Road
Kentfield, California
- Idaho Committee to End the ABM**
Box 4182
Pocatello, Idaho 83201
- Delaware Opposition to the ABM**
210 South Road
Wilmington, Delaware
- Connecticut Coalition on National Priorities**
Box 306
Canaan, Connecticut
- Northern Virginia Coalition Against the ABM**
2107 South Arlington Ridge Rd.
Arlington, Va. 22202

(Minutes of FAS Council meeting, 28 April 1969; *N.Y. Times*, 18 April 1969; *New Republic*, 26 April, 1969, 24 May 1969.)

General J. P. McConnell, Air Force chief of staff, has said that new technology in the decades ahead would revolutionize warfare. "I am quite certain the accelerating pace of technology will result in advances during the next decades that will revolutionize the art and techniques of warfare even more dramatically than have the nuclear bomb and ICBM," he said. "For the sake of this nation's security, I hope and pray that our science and industry will succeed in always keeping us ahead in the technological race with the Communist world, as they have to this day." He noted that the same weapons which had given the nation an unprecedented capability for strategic deterrence and for retaliation had, in the arsenal of other countries, exposed the U.S. to an unprecedented threat. (*N.Y. Times*, 23 March 1969.)

West German naval architects are completing plans for the world's largest nuclear-powered merchant ship, a 215,000 ton ore-oil carrier. Studies recently undertaken by Dr. Manfred von zur Muehlen, an official of the Society for the Application of Nuclear Energy in Shipbuilding and Shipping, noted that under certain circumstances nuclear ship power plants in the range of 40,000 to 50,000 shaft horsepower showed promise of economic superiority over conventionally fueled plants of similar output. There are now two atom-powered merchant ships, the *Otto Hahn*, built in West Germany, and the *Savannah*, an American vessel. The Soviet Union operates an atom-powered icebreaker, the *Lenin*. (*N.Y. Times*, 26 May 1969.)

Tests in California have shown that the emissions of nitric oxides had been reduced by one third in a test on 20 automobiles by disconnecting the vacuum spark advance. The device is a connection between the engine manifold and the distributor which, the experts said, was essential when automobiles had to be hand-cranked to start, but has become less necessary with modern cars. The disconnection resulted in a one-third reduction in nitric oxides, a 10% reduction in hydrocarbons, and no change in carbon monoxide. Fuel consumption increased by 3%. It is hoped that refinements of this technique can be used to decrease smog produced by automobile exhaust. (*N.Y. Times*, 23 March 1969.)

Legislation has been passed in the House of Representatives (392-1) to impose heavy fines on oil rigs, ships, and other sources of water pollution. A similar bill is in committee in the Senate. (*Wall Street Journal*, 17 April 1969.)

Dr. Egbert W. Pfeiffer, sent to Vietnam by the Society for Social Responsibility in Science to study the ecology of the areas affected by defoliation, has reported that the war has indeed made many changes in the natural life of the country. He urged that an international study be made on the effects of the defoliation, and noted that many side effects of the war had damaged both jungle and farm areas. Mosquitoes breed in craters left by bombs; rubber trees are often inadvertently sprayed with defoliants; tigers have come to expect dead bodies to be near gunfire, and hunters fire into the air to attract them. (*N.Y. Times*, 4 April 1969.)

The Food and Drug Administration has imposed new labeling requirements on cyclamates, used as artificial sweeteners, and has included in the regulation limits of 3,500 milligrams per day for adults and 1,200 milligrams per day for children. The action came as a result of a recommendation from a National Academy of Science committee. Saccharine was not included in the new regulations. Cyclamates have been investigated as possible sources of liver damage, genetic damage, and other problems. Most investigators have agreed that large amounts have at least a strong laxative effect. (*News Report, National Academy of Sciences*, May 1969; *N.Y. Times*, 4 April 1969.)

Senator J. William Fulbright has held one closed meeting of the Foreign Relations Committee of the Senate on the subject of chemical and biological warfare, with Prof. Matthew Meselson, a biologist from Harvard, as the only witness. He is considering holding further open hearings on

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the same subject. He was urged to take this action by Representative Richard D. McCarthy, of New York, who has been investigating CBW on his own. McCarthy claims to have noted disagreements on the subject between the Departments of Defense and State.

(*The Evening Star*, Washington, D.C., 30 April 1969.)

The Senate Commerce Committee has heard evidence that Chemical Mace and similar aerosol spray weapons may cause permanent injury to humans. Copies of medical reports were filed with the committee by Joseph A. Page, an associate law professor at Georgetown University, who took issue with previous testimony by Dr. Herbert L. Ley, Jr., Federal Commissioner of Food and Drugs, and by spokesmen for the General Ordnance Equipment Corporation, the manufacturer of Chemical Mace. Dr. Ley testified that he had no report of any permanent injury to humans. Page cited cases of corneal edema, conjunctivitis, toxic bronchitis with permanent after-effects, and a detached retina. The corneal edema, he said, could lead to blindness. Four thousand police departments use Chemical-Mace in the United States. (*N.Y. Times*, 28 May 1969.)

A two-day conference on lead poisoning in children was recently held at Rockefeller University, where experts agreed that between 112,000 and 225,000 children fall victim to lead poisoning every year. The majority of them live in slum housing where the interior paint contains lead. Lead-based paint has been outlawed for about ten years in many states for indoor use, and the paint industry stopped manufacturing lead-based paint for interiors about twenty years ago, but in old buildings in New York and elsewhere, the old paint remains. The chewing of paint chips and window sills is one of the main causes of acute lead poisoning. About 5% of children who reach the acute stage die, and many are brain-damaged. Summer appears to be the more common time for the disease to manifest itself. (*N.Y. Times*, 26 March 1969.)

The Food and Drug Administration has proposed a halt to the marketing of 78 different antibiotic combination products on the ground of lack of effectiveness. The FDA said that the mixtures of antibiotics, or antibiotics and other drugs, were not more effective than the individual ingredients used. Dr. Ley of the FDA said that "the use of two or more active ingredients in the treatment of a patient who can be cured by one is irrational therapy. It exposes the patient to unnecessary risk." The action was taken by the FDA on the recommendation of a review by the National Academy of Sciences. The Academy, among other objections to the combination products, stated that the fixed dosages in the combinations were poor medical practice. (*Wall Street Journal*, 2 April 1969.)

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SCIENTISTS AND INVOLVEMENT

by Marvin Kalkstein

(continued from previous issue)

To take the approach that the scientist should present only the facts and nothing else is to deny to the scientist, in his public involvement, a prime function and reason for his scientific involvement. I do not think that I would have been satisfied as a scientist if I had denied to myself what is generally the "fun" part of doing science. When reporting the results of research on a given subject, after describing the experiment and presenting the data and results, there is always a final section entitled "Conclusions." There is no question that the scientist has the right and should state his conclusions on problems on which he has done professional work as a scientist. It is equally right for a scientist to state his conclusions on social issues in which he has been involved if he has brought to bear the same professional approach in dealing with those issues. It is justified on the basis that the scientist had the interest and made the effort to discover the facts, and in the process has probably arrived at a greater knowledge of them and their significance. So long as the scientist has been scientific in his approach, has stated his assumptions where it has been necessary to make them, then it is quite appropriate that he express his conclusions or judgments. These then can be examined and discussed on the basis of his assumptions as well as the facts.

With regard to the Federation of American Scientists approach, the application of constraints mentioned above is somewhat self-deluding. While most of the issues dealt with have had technical components, the basic decisions and judgments have been of a political, social, economic, or psychological nature. Even on issues such as the ABM issue, while it can be argued that an ABM system will be relatively ineffective and of little value on the basis of technical considerations, the main arguments raised, and quite correctly (a value judgment), have to do with the impact of such a system on the arms race. And this argument is basically a political judgment.

If we are to assist the public so that it can be knowledgeable and effective and able to play a role in dealing with these issues, it is necessary that we go beyond straight factual presentation. The facts by themselves are of limited use to an uninformed public. With only the technical facts, the public is too often overwhelmed by its own insecurity with regard to technical issues and opts out of the decision-making process. It is only when the public has an opportunity to examine and debate the arguments associated with the facts that it can arrive at a full understanding of the issues, reach its own conclusions, and participate in the decision-making process in a meaningful manner. If the scientist is to play a useful role, he cannot remain on the outside but must become involved and participate within the society.

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