THE VOICE OF SCIENCE ON CAPITOL HILL

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS–Founded 1946–
A national organization of natural and social scientists and engineers concerned with problems of science and society.

Vol. 24, No. 8
November, 1971

Marvin L. Goldberger, Chairman
S. E. Luria, Vice Chairman

ATTEMPTED REVIVAL OF COUNTERFORCE

On October 5, two amendments were proposed by Senator James L. Buckley to enhance the counterforce capabilities of our missiles. They were rejected by the Senate by large margins (66-17, 68-12).

Amendment 448 to the Military Procurement Bill proposed to add $12 million in R&D funds which, it was said, would within 18 months increase the kill probability of Minuteman III by about 40%. Amendment 449 would authorize $25 million to within three years increase the kill probability of Poseidon by a factor of about 500%.

The day of the Buckley vote, the Strategic Weapons Committee of the Federation urged Senator Stennis by letter to oppose the amendments saying:

> There is no doubt in our minds whatsoever that the amendments proposed by Senator Buckley could reasonably be construed as moves designed to give the U.S. a "first-strike" potential. More generally, they would seriously risk disruption of SALT talks negotiations by introducing a new and destabilizing element. They would lead to wasteful expenditures on funds for a first-strike counterforce purpose we do not need. And they would encourage — and preclude negotiations about — the very advances in Soviet weaponry about which the Administration is most concerned.

The Defense Department also opposed the amendments saying "It is the position of the United States to *not* develop a weapon system whose deployment could reasonably be construed by the Soviets as having a first strike capability." (S15891, October 5, 1971)

Those in favor of improving the accuracy of our missiles sometimes argue only that this will give our strategic force "flexibility" and "options." But, as Senator Stennis noted in opposing Senator Buckley, our accuracy is already "well within a half-mile" and is "already sufficiently good to enable us to attack any kind of target we want." Senator Stennis argued that the only reason for the amendment was "to be able to launch a U.S. first strike, unless the adversary should be so stupid as to partially attack us, and leave many of his ICBMs in their silos for us to attack in a second strike."

Some are arguing for a counterforce capability upon precisely the assumption Senator Stennis disparaged. Thus some strategists envision the possibility of a Soviet attack at our missiles followed by an ultimatum to surrender — an ultimatum backed up by retained Soviet missiles aimed at our cities. (The retained missiles are usually taken to be the 900 SS-11s now thought to be insufficiently effective to use against our Minuteman missiles.) These supporters

—Continued on Page 2

CANNIKIN TEST GOES FORWARD

The Federation has been attempting to secure a cancellation of the Cannikin nuclear test since May of this year. At that time, the Federation's Director testified in Anchorage, Alaska before an AEC board that Cannikin was insufficiently necessary for the SAFEGUARD ABM to justify the inevitable environmental risks of the test. At that time, Herbert F. York, past Chairman, called Cannikin a "pointless experiment in search of an unnecessary weapon".

In a statement approved by the Executive Committee, FAS noted that the high-level Pitzer report (prepared for the White House in 1968) had concluded that Cannikin should not go forward unless there was a "compelling necessity" for it.

The FAS statement revealed that Cannikin was designed to test the warhead for the so-called Basic Spartan missile — a missile which played only a marginal role in the SAFEGUARD ABM. SAFEGUARD, designed to defend U.S. missiles, uses the short range Sprint interceptors primarily. (The earlier SENTINEL ABM for city defense had been designed around the Spartan.) Furthermore, an improved Spartan warhead was already being planned with a warhead that did not require testing in the Aleutians.

The Administration refused to discuss the purpose of the test for many months and its Environmental Impact Statement noted only that the test was critical to U.S. weapons development. The House of Representatives then voted affirmatively in official secrecy of what the test was for; the Federation issued a release during that debate calling the secrecy concerning the purpose of CANNIKIN one of two outrageous misuses of the right to classify information.

Under pressure, the Administration declassified the purpose of CANNIKIN a few days later on the morning of the Senate vote to authorize funds. In a letter from Secretary Packard, CANNIKIN was admitted to be for the Spartan warhead and was called necessary to the "optimal defensive deployment" of SAFEGUARD. Its defenders promptly ignored the hedge word "optimal".

At this point it became known that an Undersecretary-level Review Committee involving at least seven government agencies had voted five to two to delay or cancel the test. Undenied newspaper reports indicated that AEC and DoD had supported the test; State, USIA and the Council on Environmental Quality had called for delay; the Office of Science and Technology had supported the FAS position that the warhead was obsolete; and the Environmental Protection Agency had supported cancellation.

Partly because of these disclosures, a compromise was

—Continued on Page 2

COUNTERFORCE from Page 1

of counterforce argue that improvements in U.S. accuracy would give us the option of answering the ultimatum by striking back at the retained Soviet land-based missiles.

But the Soviets would have been unable to destroy our *sea*-based missiles. Hence we would still have a deterrent. Why, under these circumstances, would we be motivated to surrender? Furthermore, with or without higher accuracy, the U.S. could launch limited attacks that would reciprocate for whatever collateral damage might have been done to us.

In short, the U.S. could respond tit for tat *without* high accuracy on our missiles. And, even *with* high accuracy, the U.S. could not undermine the Soviet deterrent since it includes sea-based weapons we cannot locate. Under these circumstances, the benefits of higher accuracy on U.S. missiles are questionable.

Furthermore, the ability to strike all Soviet land-based missiles is likely to accelerate Soviet strategic force procurement unnecessarily. It is, after all, a key element in the surprise attack one might launch *if* one had some method of dealing simultaneously with Soviet sub-launched missiles.

Indeed, an attack on land-based missiles is precisely the kind of attack which Secretary Laird called a "first-strike" threat when he talked of the possibility of Soviet attacks on U.S. Minutemen with a MIRVed SS-9 missile. Strictly speaking, the capability to attack land-based missiles of the other side is not a first-strike threat since it does not — by itself — threaten a preemption of *all* the nuclear weapons of the other side. But, as Secretary Laird's comments reveal, each side sees a counterforce capability against its land-based missiles as such a central component of a first-strike threat that it may ignore the distinction.

A true counterforce first-strike capability really requires the "thick" city-protecting ABM which President Nixon argued on March 14, 1969 was not now possible of achievement. One exponent of the thoroughgoing approach to counterforce is Dr. Donnald G. Brennan of Hudson Institute. In a new book co-edited by Stefan T. Possony and J. E. Pournelle (*The Strategy of Technology: Winning the Decisive War;* Dunellen, New York, 1971), Dr. Brennan argues that ". . . if our strategic objective is to ensure that we do not suffer mass destruction, and will not have to kill millions of [the enemy's] noncombatants, we must be able to fight a war through to a successful conclusion. Pure [ABM] defense is obviously no strategy at all; we need counterforce weapons as well."

Dr. Brennan argues that Soviet resources "available for expansion and weapons" are quite limited compared to ours and that Soviet resources "consumed in the Technological War of offensive strategic systems will not be available for other aspects of the Protracted Conflict", such as the Middle East, Soviet naval strength, etc. Hence, he argues, a U.S. effort to buy a thick ABM and counterforce capability would at worst lead to increases in Soviet offensive weapons which "may be destined to sit unused, anyway" while "deescalating the arms race in the sphere where armed conflicts are being fought." However, the notion that Soviet behavior could now be usefully influenced by stepping up the arms race — the "overstrain" argument of the early fifties — seems to have few (if any) other adherents.

CANNIKIN TEST from Page 1

worked out in a subsequent Senate (appropriations) vote in which the money would not be spent unless the President gave the test his "direct approval"; this amendment became law.

Heightened Canadian protest, and a high level of concern in Japan, did not induce President Nixon to call off the test during his visit with Emperor Hirohito in Anchorage. Meanwhile, in Washington, an Appellate Court ruled that a District Court was obliged to hear arguments that the Environmental Impact Statement was not completed in accordance with law.

The Soviets then encouraged the test by detonating a large warhead underground in September. And it was learned that Premier Kosygin would be in Canada from October 18 to 28, arousing speculation that the test might have given rise to an adverse propaganda feast between Soviet and Canadian opponents.

CANNIKIN was a perfect example of a test which, once it was set in motion, could not be stopped despite its eventual purposelessness. The very tumult necessary to secure a Presidential review of this test aroused in the White House — according to one newspaper report — a feeling that CANNIKIN had become a test of force which the Administration had to win.

WIRETAPPING: Differences of View

In February of this year, the Federation newsletter discussed the general problem of privacy in American life, and the question of wiretapping in particular. In a signed article, the director suggested that there should not be electronic eavesdropping upon any citizen except under court warrant or in a national emergency. Some FAS members objected to any distinction between citizens and aliens; more fundamentally, some object to any wiretapping at all. A poll of 24 Council members produced eleven in opposition to any wiretapping, with five supporting wiretapping under judicial warrant, and one suggesting that the Federation not adopt a position. The matter will be discussed at the next Council meeting.

FEDERATION ENDORSES ENVIRONMENTAL CLASS ACTIONS

At the present time, a number of legal barriers exist to environmental lawsuits. In the first place, individuals or citizen groups are not often considered to have standing to sue unless they can show that they were damaged in a way that is markedly different from that of the public at large. But it is precisely to protect the public from major damage that affects many individuals in the same *minor* way that most of these suits are brought.

Second, Government agencies can plead sovereign immunity, under long-standing precedent, from suits by citizens.

Third, the courts consider themselves to have only the right to reverse Government decisions that are illegal, frivolous or inconsistent with the agencies' own procedures. However, most environmental class actions turn on the

judgment involved in agency discretion, not on the question of illegality.

On September 13, the Federation Executive Committee approved the letter below to Senators Philip A. Hart and George McGovern endorsing environmental class actions.

We write to endorse S.1032, the Environmental Protection Act of 1971, providing citizens with the right to file suit to protect the environment from unreasonable pollution, impairment or destruction.

Today no one doubts that Government agencies, states, and private parties often undertake environment-affecting actions that are flatly opposed to the public interest. In the case of Government agencies, these improper activities often arise organically from conflicting agency pressures, high level directives, political influence, bureaucratic momentum, or just bad judgment. It is an anomaly in our law that there should be no legal remedy to these common distortions of public policy.

Our environment obviously requires an all-pervasive watchdog to sound the alarm when the possibility of damage is significant. And this watchdog must have the ear of a dispassionate, respected organ of society capable of resolving the resultant disputes. Only the public can satisfy the first criterion. Only the courts can satisfy the second.

Only the public can be depended upon to be promptly indignant about environmental deprivations. Ultimately, only the public can be the guardian of its environmental interest. Therefore, the right of the public to apply for timely injunctions must be legislated.

By the same token, if the court system did not exist for other purposes, we might seek to invent it to arbitrate disputes over the environment. In a court, men of judicial mind and public respect hear both sides. They apply the law and, more important in environmental issues, they apply the rule of reason to decisions that inevitably involve much discretion and conflicting values.

The Hart-McGovern bill thus brings into fruitful harmony the desire — and the ability — of the public to police its surroundings, and the existence of the courts to hear the cases the public brings.

We do not question, furthermore, the ability of the courts to decide these issues. Courts resolve equally complicated questions in other fields of law. And if the issues are complicated — as they are — better to resolve them in a court than to permit unchallenged administrative procedures to have the last word.

At the present time, citizen suits involving the environment actually bring the law into disrepute. Under present procedures, *pro bono publico* law firms are forced to charge violation of obscure statures — or to find in agency actions procedural omissions of doubtful significance — simply because citizens are denied the standing to challenge the substance of decisions that all agree are questionable. This is not a healthy situation.

We also believe the courts should spend the necessary time on environmental matters. Much that the courts do is of patently lower priority, since environmental issues typically involve damage that is irreversible. And if there is need for relieving pressure on the courts — which we do not doubt — the solution is court reform and expansion, not the omission of important kinds of justified cases.

We do not share the view that frivolous citizen suits will be a serious problem. The proposed law does not provide for any damages to tempt such suits. And the courts are well experienced in detecting and denying unnecessary legal action. The bill also requires two technical experts in support of each suit. Most important, the costs and difficulties involved in pursuing suits are so substantial that unreal suits are always well deterred. In any case, the answer to frivolous suits is not to keep real suits impossible.

The Hart-McGovern bill fills a missing link. More and more information is becoming publicly available about the environment. More and more citizens want to be involved in protecting their surroundings. More and more often it is recognized that agency judgments are questionable. S.1032 brings all these factors together by permitting serious citizen suits. For this reason, there is no proposed law in Congress today that is more important in its ability to protect the environment.

FEDERATION SUPPORTS NOISE CONTROL ACT

The Subcommittee on Environment of the Senate Commerce Committee is considering an Administration bill S. 1016, the "Noise Control Act of 1971". Under this bill, the Environmental Protection Agency (EPA) would have the right to regulate noise emissions on machines used on construction and transportation equipment, and equipment powered by internal combustion engines. It would also have the right to require labeling of the noise generated by products capable of adversely affecting the public welfare.

On September 27, the Federation Executive Committee approved the letter below to Senator Warren G. Magnuson, Chairman of the Senate Commerce Committee:

We write to support the passage of the Noise Control Act of 1971, S.1016. No one can doubt today that excessive and/or unexpected noise can cause far more than irritation. A host of scientific studies suggest and show the unfortunate psychological and physiological effects that sound can have: anxiety and other psychological ills; loss of acuity of hearing; rise in blood pressure; even fetal abnormalities; etc. There is little doubt that further research into the psychophysiological effects of sound will produce a lengthened list. And there is no doubt that excessive sound can lower human efficiency in general, and cause accidents in particular. When this is added to the sheer annoyance that excessive sound can cause, the case for control is compelling indeed. Uncontrolled sound is a threat to our health, to our sense of well-being, and to our satisfaction with our environment.

From a legislative point of view, the public has a right to legislation controlling the sound in the public environment through which the citizen must travel, or in which he must work. We therefore support and urge that the Environmental Protection Agency (EPA) be permitted to establish criteria for human exposure to noise, and to set criteria to regulate noise emissions on the largest possible class of potentially offending machines and devices.

In setting these regulations, we would urge that EPA be permitted to take into consideration not only the harm that noise is now known to cause, but also the plain unpleasantness of unnecessary noise. For example, if the state of the art permits sharp reductions in the noise of trucks at little additional cost to the manufacturer, standards should encourage that expenditure. Thus, as with radiation, standards should be biased in favor of noise reduction, if for no other reason than because future research may find such reductions important to health.

Inside the home the citizen can, within limits, control his own noise environment. He will want to. We know that individuals differ markedly in their sensitivity to noise. And certainly individual preferences with regard to noise in the environment would exist in any case. However, it is difficult indeed to judge the sound emitted by an object inside a store. And it can be pointless to have noiseless articles in a home if a few articles — bought by mistake — emit a sound much larger than all the others. Therefore, the citizen must be able to judge accurately the noise emitted by the articles he wishes to buy so that he may shape a suitable environment for himself. For this reason, S.1016 should require accurate noise labelling of a wide variety of consumer goods. We require labelling the ingredients of goods that are edible. Why not require labelling the sound emitted by goods that are audible?

If S.1016 can reduce the noise level of our environment, we believe that more than 200 million Americans will breathe that sign of relief which each of us individually would breathe if only the noise level in our offices could be reduced. Few bills in Congress are associated with such a widescale and needed improvement in living conditions.

If we can be of assistance in securing the passage of this legislation, please let us know.

UNDERGROUND NUCLEAR TEST MONITORING SYSTEM

On September 10, five specialists on seismology sent a report to Senator Clifford Case on the detection of underground nuclear tests. The report concluded that a "good" detection capability already exists which is a "strong deterrent" against violations of the test ban. But it argued that the scientific basis existed for still further progress if the United States were willing to spend about $130 million for deployment of further devices.

The report concluded that U.S. capabilities will soon permit detection *and* discrimination at yields down to about 10 kiloton explosions in hard rock in Eurasia. With the proposed additional expenditures, the vast majority of seismic events greater than two kilotons (in hard rock) would be detected, located and identified. A recent SIPRI report confirmed these numbers.

Asked to examine the report, the Federation generally endorsed its conclusions. FAS noted that under any future complete test ban treaty, America would want the best possible detection system technology could provide. FAS did not conclude that further improvements in detection capability were necessary to early negotiations of a complete test ban. These more general questions are to be treated in a subsequent Federation statement.

The report to Senator Case was endorsed and prepared by Barry Block, James Brune, Freeman Gilbert, Peter Molnar, and Richard Haubrich.

FEDERATION ENDORSES COUNCIL OF SOCIAL ADVISERS

On September 24, FAS endorsed S.5, the proposal of Senator Walter F. Mondale to create a Council of Social Advisers in the Executive Office of the President. Such a Council would institutionalize the explicit consideration of social factors in science and society issues that now deal with them less self-consciously. The Council would construct, and popularize, methods of measurement of social progress without which progress itself is often impeded. Its annual report, and its day-to-day activities, would help coordinate the actions of other governmental agencies which are taking actions with important social consequences.

FEDERATION ENDORSES TRUTH IN ADVERTISING

On September 13, the Federation wrote Senator George McGovern in support of S. 1461 "Truth in Advertising Act of 1971". This act requires that advertisers maintain documentation of claims used in advertisements and that they make them available on request at cost. The Federation noted that false, undocumented claims tended to misuse science and to undermine its credibility. FAS argued that media advertisers would find S. 1461 useful protection against charges that the media was carrying false claims. But it did not believe that each advertisement should have to contain the fact that such documentation exists.

FAS EXPANSION NEEDS

Can you help us secure new members from the natural and social sciences, and engineering, who share our goals? We have brochures suitable for mailing to individuals and for putting on Bulletin Boards. Help us advertise! Write and let us know how many you need, or send us names of prospects. In terms of effectiveness, no organization of any kind in Washington is providing more for your dollar than FAS.

Science and Government Report said this about our first year of rejuvenation:

> The Capitol has not seen anything quite like the FAS performance since the struggle over creation of the Atomic Energy Commission. If the federation proves durable, it will add to the public process something that heretofore has been available only in spotty amounts: a genuine adversary system in areas of public concern that traditionally have been dominated by "kept" experts.

And do not forget TACTIC, our organization of scientists in each Congressional District which receives periodic information from us on subjects about which they might want to write their Congressmen. For $5 extra, FAS members can participate in ti.

November, 1971, Vol. 24, No. 8

FAS NEWSLETTER; 203 C St., N.E.; Washington, D. C. 20002; (202) 546-3300. Published monthly except during July, August and September by the Federation of American Scientists. FAS is a national organization of natural and social scientists, engineers and non-scientists concerned with issues of science and society. Jeremy J. Stone, Editor. Extent and nature of circulation is as follows:

	Average No. Copies Each Issue During Preceding 12 Months	Actual Number of Copies Of Single Issue Published Nearest To Filing Date
A. Total No. Copies Printed (Net Press Run)	3,500	4,000
B. Paid Circulation		
1. Sales Through Dealers and Carriers, Street Vendors and Counter Sales	-0-	-0-
2. Mail Subscriptions	2,084	2,500
C. Total Paid Circulation	2,084	2,500
D. Free Distribution By Mail, Carrier or Other Means		
1. Samples, Complimentary, and Other Free Copies	735	1,450
2. Copies Distributed To News Agents, But Not Sold	-0-	-0-
E. Total Distribution (Sum of C and D)	2,819	3,950
F. Office Use, Left-Over, Unaccounted, Spoiled After Printing	681	50
G. Total (Sum of E & F—should equal net press run shown in A)	3,500	4,000

Second Class Postage Paid at Washington, D. C.

Return Postage Guaranteed