

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS

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THE H-BOMB CRISIS -- SPECTRUM OF OPINION

ON FEBRUARY 1, 1950, THE PRESIDENT OF THE UNITED STATES ANNOUNCED:

It is part of my responsibility as Commander in Chief of the armed forces to see to it that our country is able to defend itself against any possible aggressor. Accordingly, I have directed the Atomic Energy Commission to continue its work on all forms of atomic weapons, including the so-called hydrogen or superbomb. Like all other work in the field of atomic weapons, it is being and

will be carried forward on a basis consistent with the over-all objectives of our program for peace and security.

This we shall continue to do until a satisfactory plan for international control of atomic energy is achieved. We shall also continue to examine all those factors that affect our program for peace and this country's security.

A COMMENTARY

Two subjects simultaneously held attention for a time in Washington last week -- hydrogen bombs and potatoes. Unlikely and unrelated as the combination appeared to be, there were similarities nonetheless. In both cases the capacities to produce, heightened by scientific and technological advance, had outstripped the mechanisms of social control. In both cases decisions were made -- to destroy the potatoes and to make the bombs -- decisions that appeared necessary and logical given the circumstances. But in both cases the decisions left troubled minds and the feeling that if the decisions were right for the circumstances, the circumstances themselves must be changed.

The days following the President's announcement on the H-bomb were instructive, even if they brought no new information on the Bomb itself. Complacency was momentarily shattered and misgivings were voiced in high and low places in American political life. An international conference on general disarmament was called for by Senator Tydings. Senator McMahon made a dramatic plea for a bold new approach to the Russians to obtain international control of atomic energy. Twelve prominent physicists called for a declaration that the U.S. would not use the Bomb unless first attacked by an H-Bomb. The FAS, the Washington Post, and numerous columnists and commentators called for a high-level commission to re-examine U.S. policy in light of the H-bomb. Grumbling was heard in many quarters over the President's failure to seize the opportunity provided by the announcement.

(Continued on page 4, Column 1)

OFFICIAL U.S. POLICY

Truman. At his press conference on February 9th, according to the Washington Post, President Truman expressed the following views in response to a barrage of questions from reporters:

1. There is no need for a new approach to Soviet Russia in connection with the atomic and hydrogen bombs.
2. There is no reason to reconsider or modify the Baruch Plan since it is just as good today as the day it was drawn up.
3. There is no necessity to establish a new commission to review policy in light of the H-bomb. (In reply to a question specifically citing the FAS statement calling for such a commission).
4. There isn't any use getting all steamed up.

Acheson. The Secretary of State came to his press conference on February 8 prepared for questioning on the H-bomb decision, and took the opportunity to clarify further basic American foreign policy. He emphasized the following points:

1. Weakness anywhere in the non-Soviet world is an invitation to the Soviet Union "to fish in those troubled waters." In all such cases the U.S. moves to correct the weakness and thus to avoid opportunities for trouble.
 2. Agreements of the usual kind with the Soviet Union are impossible. "We have seen that agreements reached with the
- (Continued on page 2, Column 2)

FAS CALLS FOR RE-EVALUATION OF U.S. POLICY

A fresh start on the whole issue of atomic policy, in the light of the H-bomb decision, was requested by the FAS Council, meeting in New York on Feb. 5. The Council, in common with the Washington Post, Walter Lippmann, and others, proposed the establishment of a new high-level commission comparable to the earlier Acheson-Lilienthal Commission. The proposal was embodied in a statement which received wide press notice. It was specifically referred to in questions to the President and Secretary of State at their news conferences. The statement follows:

"The atomic armament race has entered a new phase with President Truman's "go ahead" signal for development of the hydrogen bomb. In this new phase two things should be clear to the American people: (1) That we can be sure that if we make hydrogen bombs the Russians will build them too; we must have no illusions of security based on monopoly of a super-weapon. (2) The kind of security we want can be had only by building a stable peace. We know that any weapon, however powerful, can give no security to any nation; no defense will bring freedom from fear.

"No nation is secure against the hydrogen bomb. Of all the cities of the world, none is safe. Of all the cities of the world, not one presents a better target than New York. Superficially the super-bomb appears to threaten our rival, but the President and the people must see that the threat lies nowhere

(Continued on page 3, Column 1)

OTHER CALLS FOR U.S. POLICY REVISION

Senator Brien McMahon. In a dramatic home setting, following the Presidential announcement on the H-bomb, Senator McMahon, Chairman of the Joint Congressional Committee on Atomic Energy, pleaded for a spectacular new attempt to avert atomic warfare. The Senator said that two courses are open to the U.S.

1. To resign ourselves to waging the Cold War, cherishing the hope that relentless pressure will cause Russia to reform, but meanwhile living in fear with our freedoms progressively restricted and our tax burdens steadily increased.
2. To resolve "to move Heaven and Earth to stop the atomic arms race" and to establish world peace and atomic abundance.

Arrayed against the first choice, McMahon pointed out "is five thousand years of recorded history, which teaches again and again and again that armament races lead to war -- under today's conditions, hydrogen war."

To implement the second alternative, McMahon urged that drastic steps be taken to reach the Russian people through a strengthened Voice of America, a leaflet barrage on atomic peace, and a request for a UN meeting in Moscow. Even more, he recommended that the U.S. set aside two-thirds of its current armament bill over a period of 5 years, 50 billion dollars in all, to foster peace throughout the world. This fund, administered by the United Nations, and supplemented by similar contributions

(Continued on page 2, Column 1)

Other Calls for Revision (Continued from page 1).

from other countries, would be used to implement the President's Point IV Program, to develop atomic energy everywhere for peaceful purposes, and for general economic aid to all countries, including Russia.

In a tone of deepest solemnity, Sen. McMahon concluded, "I believe that every morning each member of the United States Senate and House of Representatives, and each high official of the Executive Branch, should glance at the sun and reflect that what he sees there, millions of miles away, threatens to be re-created on this earth, in our own cities, in Washington, New York, Los Angeles, and Chicago. This is a time for soul-searching, for nation-wide and world-wide debate, and for the launching and maintaining of that moral crusade for Peace which alone can save us and lead mankind along the righteous paths of security, abundance, and liberty."

Senator Millard Tydings, Chairman of the Senate Armed Services Committee, commenting on the H-bomb decision in the Senate Feb. 6, proposed that the President call a world conference to accomplish universal disarmament within the next four years. Sen. Tydings emphasized that any atomic energy control scheme based on inspection is essentially futile, if it is based on anything less than complete and total disarmament. He pointed out that once hostilities have started with neither side having A- or H-bombs, inspection procedures would break down and an all-out effort to produce these weapons would result. "I should think," said Tydings, "that Russia would rather devote her energies and her plans toward creating a more prosperous country for the Russian people raising their standards of living, than to waste their substance on such things as the hydrogen bomb if it could be laid aside with safety."

Oppose H-Bomb. On January 31st, the Council of the Society for Social Responsibility in Science sent the following telegram to President Truman:

"Council of Society for Social Responsibility in Science is opposed to H-bomb and vigorously urges no decision until after thorough public discussion of enormous consequences for national and world welfare."

Twelve prominent U.S. physicists urged that the United States make a solemn declaration that it will never use a hydrogen bomb in warfare unless it or its allies are first attacked by this weapon. The statement, issued at the New York meeting of the American Physical Society Feb. 4, points out, "...We believe that no nation has the right to use such a bomb, no matter how righteous its cause. This bomb is no longer a weapon of war, but a means of extermination of whole populations. Its use would be a betrayal of all standards of morality and of Christian civilization itself. ...We must remember that we do not possess the bomb but are only developing it, and Russia has received, through indiscretion, the most valuable hint that our experts believe the development possible. Perhaps the development of the hydrogen bomb has already been under way in Russia for some time. But if it was not, our decision to develop it must have started the Russians on the same program. If they had already a going program, they will redouble their efforts.To create such an ever-present peril for all the nations in the world is against the vital interests of both Russia and the United States. Three prominent Senators have called for renewed efforts to eliminate this weapon, and other weapons of mass destruction from the arsenals of all nations. Such efforts should be made, and made in all sincerity from both sides. In the meantime, we urge that the U.S., through its elected government, make a solemn declaration that we shall never use this bomb first. The only circumstances which might force us to use it would be if we or our allies were attacked by this bomb. There can be only one justification for our development of the hydrogen bomb, and that is to prevent its use."

The physicists signing the statement were S. K. Allison, K. T. Bainbridge, H. A. Bethe, R. B. Brode, C. C. Lauritsen, F. W. Loomis, G. B. Pegram, B. Rossi, F. Seitz, M. A. Tuve, V. F. Weisskopf, and M. G. White.

Professor Albert Einstein, who mid-wifed the atomic bomb in at least two critical stages, grimly warned of the dangers of the H-bomb in a television broadcast on February 12. It is "within the range of technical possibilities," he said, to produce "radioactive poisoning of the atmosphere" which could re-

sult in the "annihilation of any life on earth." He called the present armament race between the U.S. and Russia "a disastrous illusion" and asked for peace moves to "do away with mutual fear and distrust." A "mechanistic, technical-military psychological attitude" governs "every single act in foreign policy," he said, and leads to "concentration of tremendous financial power in the hands of the military, militarization of the youth, close supervision of the loyalty of the citizens -- intimidation of people of independent political thinking." In "solemn renunciation of violence" he saw the only hope of avoidance of "general annihilation." "Such renunciation, however, can only be effective if at the same time a supra-national judicial and executive body is set up, empowered to decide questions of immediate concern to the security of the nations." Significantly, Einstein's views brought the angry retort from Rep. Rankin of Mississippi that Einstein should have been deported for his Communistic activities years ago."

WILPF. Officials of the Women's International League for Peace and Freedom, in a letter to the Washington Post on Feb. 11, voiced their belief that "the hope of world peace and freedom lies neither in appeasement nor in competitive armaments, but in a program of much more positive nature." Commenting on the decision to construct the H-bomb they said, "We believe the decision to manufacture this super-weapon to have been particularly untimely and dangerous, inasmuch as it puts pressure on other nations to participate in a renewed arms race." Calling for some organ of the U.N. "to discuss and evaluate all viewpoints" they labelled the Baruch proposals for international control of atomic energy "obsolete and false as a foundation upon which to build hopes for agreement and peace." "We regret," they said, "that President Truman and Secretary Acheson seem to have lost faith in the effectiveness of international cooperation by their failure to present any bold proposals for discussions with the Russians."

NCASP. At a meeting in Carnegie Hall, New York, Feb. 13th, sponsored by the National Council of the Arts, Sciences, and Professions, Linus Pauling, Harlow Shapley, and Philip Morrison spoke out against the decision to build the hydrogen bomb, warning that its use would mean the destruction of mankind. Pauling said, "The question of an atomic war is not an ordinary political question. It is of equal concern to the left-winger, the right-winger, and the man in the middle of the road. The hydrogen bomb would not discriminate -- it would kill them all. This problem of an atomic war must not be confused by minor problems such as communism versus capitalism."

At the meeting, the National Executive Committee of the sponsoring organization announced its adoption of a resolution urging the following 3-point program:

1. An immediate open Congressional hearing on the question of the hydrogen bomb.
2. The immediate appointment of a new non-partisan commission to re-examine the outdated Baruch proposals for international control of atomic energy.
3. An immediate conference between the U.S. and the Soviet Union to discuss universal disarmament and an end to the Cold War.

The Council declared that "an agreement with the Soviet Union is not only possible but absolutely necessary for the world. The need for survival is itself an area of agreement." It saw "in the current crisis an opportunity to re-examine the entire direction of our foreign policy."

Official U.S. Policy (Continued from page 1).

Soviet government are useful when those agreements register facts or a situation which exists, and that they are not useful when they are merely agreements which do not register existing facts."

3. Hence, it is "our basic policy to build situations which will extend the area of possible agreement -- that is, to create strength instead of the weakness which exists in many quarters."

4. This policy projects a long and difficult path ahead and one that will require very strong nerves to follow.

5. It is neither necessary nor desirable to ask a Government-appointed group of private citizens to study the implications of the hydrogen bomb. The Secretary remarked that he wouldn't know where to find qualified men who were not already working on this subject for the Atomic Energy Commission or elsewhere for the government.

FAS Call for Re-evaluation (Continued from page 1).

sharper than here. American scientists are of many minds on many issues, but on one we unite: our country must turn from the false security of bombs to the slow difficult task of gaining security by a positive approach to peace by mutual agreement, to peace by gradual disarmament, to peace by worldwide economic reconstruction and development.

"The policy of our country has faced in two directions. We have sought to achieve international control of atomic energy on the one hand, while basing our military planning on atomic armaments. The question which faces us today is whether the United States will persist in its avowed policy of seeking peace through agreement or whether it will pay lip service to this policy while relying on force.

"The decision on the hydrogen bomb can be interpreted by the world as a symbol that we have now set our course. We have placed a terrible weight in the balance for destruction. A greater weight must now be placed on the side of real security and peace.

"Already a few voices have solemnly and wisely urged such a course. We repeat now our request that the President establish without delay a new commission with the broad perspective of the Acheson-Lilienthal Commission of 1946 to examine the whole issue of our atomic policy and to make a fresh start, a far-going revision which offers some real hope of breaking the present stubborn deadlock.

"The United States has sought atomic agreement separate from other related issues. It seems necessary now to seek a solution within a much broader framework. Our objective must continue to be effective atomic control, including thoroughgoing inspection. But we must consider alternative proposals, perhaps proposals without the far-reaching international ownership concept, perhaps proposals making greater concessions to national interests, certainly proposals in which procedural issues like the veto are subordinate to the simple question of adequacy in giving nations warning of possible violation.

"We call on Americans to see in the President's announcement a new warning and a new challenge. We still have hope that there are no differences so great that they can only be solved by war."

AEC Fellowships -- New Developments. The Atomic Energy Commission, faced with the National Research Council's refusal to administer non-secret fellowships requiring FBI investigation, for several months sought to find new sponsors. The task proved difficult, and the AEC eventually made arrangements "within the family" -- turning to the universities already associated with it in administering the national laboratories. The FAS Council took cognizance of this development in a resolution unanimously adopted at its New York meeting February 5th. Copies were sent to the Presidents of the participating universities, heads of the Physics, Chemistry and Biology departments, and university representatives for the National Laboratories:

"The Council of the Federation of American Scientists is disturbed to learn of the action taken by regional groups of Universities associated with Atomic Energy Commission Laboratories in accepting contracts with the AEC to administer fellowships for non-secret research in the field of atomic energy.

"These fellowships have been the subject of considerable discussion by the National Academy of Sciences and other bodies since the recent Congressional action requiring FBI investigation and security clearance for recipients or applicants. The National Research Council has administered such fellowships in the past, but under the new conditions has been directed by the National Academy of Sciences to refuse to administer the non-secret fellowships. In making this decision, the National Academy had the support and advice of a large number of scientists and educators.

"It seems to us unwise for Universities to accept administration of these non-secret fellowships under present conditions requiring security clearance, or to permit their representatives in the regional University groups to do so. We feel that it undercuts the stand taken by the National Academy against the use of security clearance as a qualification for awarding fellowships in non-secret fields of research, and sets a dangerous precedent.

"We strongly advise that your representatives in regional University groups be requested to re-consider this move, and to endorse the principle enunciated by the National Academy of Sciences."

National Science Foundation. Effort and attention are focused on Monday, February 27, the next "discharge date" in the House for bills rejected by the Rules Committee. Friends of NSF legislation are bending every effort to achieve a peak of supporting correspondence to Congress just prior to that date. The Washington office of the FAS has sent appeals for action to some 60 potentially friendly non-scientific organizations. The Inter-Society Committee for a National Science Foundation has done likewise to its member scientific organizations. Recent articles by Dael Wolfe (Science, Jan.27) and Lee A. DuBridge (Bulletin of the Atomic Scientists, February) contained similar appeals. It is known that House leadership is sympathetic to, and planning for, action on NSF on February 27. But a strong demonstration of support is needed to convince uninformed or less sympathetic representatives of the importance of this legislation.

If you have not already done so, won't you write or wire to your own Congressman, as well as to Rep. Crosser who must seek recognition, and to Speaker Rayburn who must recognize him? And get others to do likewise. This is the big push for NSF legislation; if it is big enough it may be the final one.

Note to Potential Members: The contents of this Newsletter bespeak the issues in which the FAS is interested and illustrate some of its modes of action as a national organization. In general, the Federation exists to meet the continuing apparent responsibility of scientists in today's world in promoting the welfare of mankind and the achievement of a stable world peace. Among the six aims of the FAS listed in the preamble to its constitution, and the one at the moment uppermost in our collective minds, is "to study the implications of any scientific developments which may involve hazards to enduring peace and the safety of mankind."

The Newsletter is a report to members on Federation activities and on public affairs as they relate to or are affected by scientists. It is prepared by the FAS Washington office -- which is run almost entirely by volunteer scientists. Their work also includes collaboration with other civic organizations and promoting exchange of opinion between scientists and the public, and between scientists and government officials. Close contacts are maintained with newspapermen as well.

The members of the FAS include both scientists and non-scientists, with the constitutional proviso that at least two-thirds of the membership must be active scientists. At present more than nine-tenths are scientists, including physicists, chemists, biologists, geologists, engineers, mathematicians, etc. Members receive for their dues this non-regular Newsletter, the privilege to subscribe at a special rate to the Bulletin of the Atomic Scientists, and representation on the national scene through the Washington office. Members contribute to the formation of FAS policy through their elected representatives on the Council. There are eleven local chapters of the FAS which maintain programs in their areas and in several instances staff FAS committees on specific subjects.

In recent months, there has been a healthy increase in the size of the FAS. However the desired effectiveness of the Federation requires an adequate budget which in turn requires a large number of members. Additional members, particularly from among the graduate students in all the sciences are needed. Use the coupon below.

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A Commentary (Continued from page 1).

ment to restate the urgency of finding some method to halt the atomic arms race. A few organizations attacked the wisdom of the decision itself.

So high did the pressure on the White House mount that the Secretary of State, and the President himself, found it necessary to respond to it. Both denied any necessity for reconsideration of policy or for a new approach to the Russians. Their manner, and the off-the-record comments of less highly placed administration spokesmen, suggested that the public furor was regarded as detrimental to the national interest, that in the light of information unavailable to the public no change in policy, or even public discussion of it, was desirable. As the week ended it appeared that the Presidential rebuke had had its effect; discussion slackened off.

Where are we left by all this? Certainly another notch higher in the atomic arms race. But has the probability of atomic warfare been increased or decreased? In the event of such warfare, is the U.S. stronger or weaker? And in the current Cold War, who gained advantage?

These are not easy questions to evaluate, particularly in view of the dearth of information on the new weapon. Concerning the first question, many argued, though most admitted it to be a faint hope, that the existence of the hydrogen bomb would be a new deterrent to warfare. A pungent reply to this point of view came in the form of a cartoon in an Irish newspaper, depicting a cave-man ruminating on the horrors of the newly-invented bow and arrow and opining that surely it would end all warfare. Few seemed to be able to put much heart into the claim that construction of the H-bomb would make atomic warfare less likely. Nearly all tacitly agreed that many other factors would be far more important in determining this question than the physical existence of the bomb itself.

What effect will the H-bomb have on the military strength of the U.S.? Here guesses alone were available, and it could only be hoped that if they could not be informed they were at least not misinformed. It seemed obvious, at first glance, that possession of the H-bomb would strengthen the U.S., as the possession of a more powerful weapon must. But dissenting opinion was not lacking. Some wondered how much energy, and particularly scarce scientific talent, the H-bomb project would draw away from other activities, such as atomic-powered submarines and, particularly, fundamental research. Others warned of the H-bomb as the focus of a disastrous American Maginot Line psychology. Still others suggested that the H-bomb, because of its concentrated power, is a weapon with few worth-while targets, most of them in the U.S. and allied countries. H-bomb defense, even more than A-bomb defense, they pointed out, lies in dispersion, which the U.S. has notably failed even to attempt. Though general opinion, and apparently High Command opinion, held the H-bomb to be a valuable American weapon, no one in authority made clear just how. Security reasons for this there might be,

but public understanding suffered.

As to the effect of the H-bomb on the Cold War, time alone could provide the answer. If the Russians were frightened by it they gave no hint in public. The AP quoted Moscow Radio as commenting that the U.S. is following "the path pursued by the vanquished Nazis" and accusing the Truman administration of pushing the country into an "unbridled arms drive." More important perhaps is the effect on the people of Europe and Asia, for whose sympathy and support both sides are now contending. It is difficult to see how the citizens of France or Italy, or of India or Indo-China, could be much attracted to either side by the knowledge that it possessed the H-bomb. As Walter Lippman has been reiterating for several weeks, neither side can now guarantee protection against A- or H-bombing to any of the countries that lie between the major orbits. Occupation by either side will only ensure bombing by the other. And in the absence of effective defenses, emphasized by Vannevar Bush before a Congressional Committee, retaliation by one side upon the other is cold comfort to those caught between.

All in all, despite the agreement with few exceptions that construction of the H-bomb must be attempted, few could suppress the shiver of dread and foreboding that the decision produced. In truth, the decision involved no new policy; it was only a logical outcome of the old. But, as in all moments of decision, thinking for a time was fluid, men raised their heads and took a long look backward and forward. The direction of their path became all too clear and they sought desperately for alternatives.

Perhaps with some of these thoughts in mind, the FAS Council drafted the statement which appears elsewhere in this issue, calling for a high-level commission of the nation's best minds, dedicated to human welfare, to re-evaluate our position and find means to halt the movement toward destruction. The Administration rejected this request out-of-hand and the reason is not far to seek. As pointed out by Secretary of State Acheson, all hope has been given up in official circles of reaching agreement with the Russians under present circumstances. Faith is placed in strengthening opposition to Russian policy in all areas where it is weak -- in the expectation that when a total stalemate is reached all over the world the Russians will be more willing to come to terms. This policy, already determined, would be undermined by any appearance of indecision -- such as the appointment of an official commission to review policy and open it to public discussion. The Secretary of State called for "very steady nerves" as we skirt the edge of atomic warfare while moving toward a final show-down at the council table.

It is clear that American policy on atomic weapons is now absorbed completely into general American foreign policy. The administration's intention is to push on with the Cold War, risking the dangers it poses both nationally and internationally. In brief, this is the significance of the H-bomb decision. The Federation will have to evaluate its own policies and recommendations in terms of it.

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