

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS
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51 - 8

TIT FOR TAT with BOMBS and PEACE PLANS



Peace proposals popped like champagne corks on the eve of the Paris session of the UN General Assembly. In a less critical time, this might have been regarded as evidence of reducing tension and increasing hope that some rapprochement is in sight. In fact, most observers concluded that peace proposals had become frank weapons in the U.S.-Soviet slug-fest -- that they were being tailored more to attract "votes" away from the opposition than to entice the dove of peace. Said the *Washington Post*, "It is hard to escape the conclusion that the Western proposals were designed to put Soviet propagandists in a hole; that they were timed to blanket any fakery about disarmament that might come from the Kremlin and announced without the slightest hope of producing effective results. In our opinion, this is an intolerable way to conduct foreign policy, because it confuses propaganda with statesmanship."

THE WEST PROPOSED:

- 1) Continuous inventory of all armed forces and armaments -- including atomic -- in every country having substantial military power, with UN inspection to verify and guarantee the inventory.
- 2) The working out of specific arrangements for the actual reduction of armed strength.
- 3) Reduction of armaments "as soon as that can be done with full knowledge and fairness to all."
- 4) "Concurrently with the coming into effect of the [disarmament] program, the major political issues which have divided the world can and must be settled."

THE EAST DISPOSED:

Soviet Foreign Minister Vishinsky read the proposal and "could not sleep because I kept laughing." He characterized it as "babble," "sleight of hand," a "dead mouse." He left no doubt that serious Soviet consideration was out of the question.

THE EAST PROPOSED:

- 1) A general conference before June 1 to discuss disarmament and prohibition of atomic war.
- 2) A peace pact among the U.S., the USSR, France, Britain, and Communist China.
- 3) Termination of the Korean fighting at the 38th parallel and withdrawal of foreign troops within 3 months.
- 4) Outlawing of the Atlantic Pact by the UN.

THE WEST DISPOSED:

Said Anthony Eden, British Foreign Minister, "Nothing new, nothing constructive." Western delegates shrugged off the Soviet proposals as out of the question, one remarking, according to the *N. Y. Times*, that the Russians must be still in the midst of a five-year economy drive because they have been using the same speech since 1946.

NET RESULT:

Directly, the proposals brought disarmament and peace no closer. Obviously not designed to win over the opposition, there was nothing conciliatory in them. Rather they were statements of maximum objectives placed at the bar of world opinion. It would take time to determine who had gained an advantage. One thing seemed clear to most observers -- the Western strategists had, by mounting this full-fledged psychological counter-attack, taken steps to counteract the generally conceded effectiveness of the earlier, and continuing, Soviet peace campaign.

FUTURE STRENGTH OF F.A.S.

It is still too early to assess the results of the membership campaign inaugurated by the recent special *Newsletter*. In the meantime, by Council decision, the Washington Office continues to operate at its usual level. An upturn in membership applications from several centers, notably Cambridge, indicates considerable successful effort on the part of individuals and groups. There is still need for much activity if the campaign is to be a success.

U.S.-USSR ATOMIC EXCHANGE. As the A-weapons race advances to new levels, the rising tempo is marked by increasing frequency of atomic explosions in the U.S. and USSR. There is satisfaction at least in the fact that U.S. bombs are exploding in U.S. testing grounds and Soviet bombs in Soviet testing grounds -- with exchange limited to announcements and statements.

Soviet A-bomb Tests. Soviet atomic explosions numbers 2 and 3, according to U.S. count, occurred some time previous to White House announcements on October 3 and 22. They followed by approximately two years the first explosion which was detected by U.S. monitors during September, 1949. The inference is drawn that the Russians have improved on their early model bomb and were now ready with at least two new designs which required testing. This was confirmed in an indirect manner by Soviet Prime Minister Stalin who, using the now stereotyped method of granting an interview to *Pravda*, stated on October 6 that "a test was recently made by us on a type of atomic bomb" and that "tests on atom bombs of various calibers will be made in the future."

How far Soviet production progressed in the two years intervening between the first and second tests is a moot question. Rep. Jackson (D., Wash.) a member of the Congressional Atomic Energy Committee, recently expressed the opinion that the Russians have accumulated at the present time enough bombs to blast twenty to thirty U.S. cities. He also opined that they were stockpiling these bombs at an increasing rate.

U.S. A-bomb Tests. News of the Soviet A-testing brought no pause in the U.S. program which produced five new explosions in the past few weeks, reportedly with its sights focused on new

(Continued on Page 4, Column 1)

FREEDOM -- UPS & DOWNS

Denial of Visas. A number of foreign scientists have in effect been refused visas to attend scientific meetings in the U.S. because of the 1950 Internal Security (McCarran) Act. This requires that applicants for entry visas to the U.S. complete a questionnaire listing all organizations to which they belong. If any such organizations are interpretable as fascist or communist, the applications must be sent by the consul abroad to the State Department in Washington. So many have been forwarded that delays of weeks have occurred. The Attorney General has given special approval in some cases, when the situation was realized, but many applications have been buried in the pile-up in Washington. (Some of the delays were said by the State Department to be for technical reasons not involving the Security Act.)

About a dozen chemists thus were unable to attend the American Chemical Society meeting in New York in September. Some were official delegates and five (from Switzerland, France, and Italy) were scheduled to give papers. One delegate said to be a communist was refused entry. A number of delegates, including a Czech, traveled on diplomatic passports which allowed their entry without reference to McCarran Act provisions.

Similarly, invited foreign scientists are known to have been absent, due to visa difficulties, from at least the following recent meetings: Nuclear Physics Conference, Univ. Chicago, Sept., 1951; Society for the Study of Development and Growth, Sept., 1951; Electron Physics Symposium, Nat'l Bureau of Standards, Nov., 1951.

At the October 27 meeting of the FAS Council in Chicago, a committee was set up to study the restrictions on international scientific communication which have resulted from the McCarran Act and the cold war in general. In particular, studies will be made of the difficulties encountered both by foreign scientists who apply for U.S. visas and by U.S. scientists who apply for passports. The committee consists of C. D. Coryell (chairman), V. Weisskopf, T. H. Davies, and G. Chew. Persons in possession of information about specific cases in which travel by scientists has been obstructed are requested to communicate with Coryell or Weisskopf at the Massachusetts Institute of Technology.

Nimitz Commission. On October 27, President Truman abandoned his nine-month effort to establish, against Senate opposition, a non-partisan Commission on Internal Security and Individual Rights, and accepted the resignation of the Chairman, Adm. Chester W. Nimitz, and eight other members. The resignations were tendered to the President last May after the Senate Judiciary Committee had voted (in spite of ample precedent) against exempting Commission members from the conflict-of-interest statutes. This was widely interpreted as a device used by Sen. McCarran, Committee Chairman, to block the establishment of the Commission.

In accepting the resignations of the Commission members, the President stated that he would not make new nominations because of the difficulty in finding individuals who would not similarly require exemption from the conflict-of-interest statutes. Nevertheless, urgent need remains for a study of the kind the Commission had been created to carry out. As FAS pointed out in a letter to the President two years ago, scientific development and progress are particularly vulnerable to the over-zealous application of security procedures. In view of the President's statement, some earlier suggested ways of tackling the problem have been revived. One calls for a Commission composed of Senators and Congressmen designated by the Majority and Minority leaders of both Houses, working in conjunction with distinguished citizens designated by the President. Something of this kind was suggested by Sen. Lodge a year ago. Others have urged a non-governmental group under the auspices of one of the large private foundations. It is to be hoped that one of these proposals will bear fruit, since the steady influence of the long-range view is needed now more than ever.

Science Attachés. Six U.S. scientists have recently been appointed by the State Department to serve in overseas posts in Great Britain, Scandinavia, and the continent. This step puts into effect another of the recommendations of the Berkner report of 1950, "Science and Foreign Relations." Succeeding Charles S. Piggott as science attaché in London is Hans T. Clarke, biochemist from Columbia. L. H. Farinholt, another Columbia chemist, will assist him. Serving in the American legation in Bern are Lodewyk Lek, a Scripps oceanographer, and Gordon F. Hull, Dartmouth Physics Professor. New appointees to the staff at Stockholm are anatomist William L. Doyle and industrial chemist Robert L. Loftness. A few more appointments are expected in the near future.

California Oath Withdrawn. The University of California faculty won an important battle in October when the University's Board of Regents approved by a vote of 12 to 8 (4 absentees) a motion to discontinue the special anti-Communist oath initiated by the Board about two and a half years ago. Reconsideration of the motion at the November meeting, forced by parliamentary maneuvers of the pro-oath minority, is expected to sustain the discontinuance because of a new alignment of the Board by that time. The constitutionality of the special Regents' oath is now being tested before the State Supreme Court.

Academic Freedom in Ohio. President H. L. Bevis of Ohio State University announced on Nov. 7 relaxation of the university's recent speaker-screening rule and defined three classes of individuals who now may speak on the campus without his approval. The original rule, referred to in many quarters as a gag rule, was established by the trustees as a result of objections to a speech of Dr. H. O. Rugg at Ohio State several months ago. Dr. Cecil Hinshaw, a Quaker pacifist, subsequently was denied permission to speak. The rule has been denounced by the University Faculty Council, by community leaders, and by newspapers all over the country as a dangerous limitation on academic freedom.

In response to these protests, the relaxed rule allows the following exemptions from the requirement of Presidential screening: (1) speakers who in a professor's judgment will contribute to classwork; (2) heads of several religious foundations serving the university; (3) professional, scientific, or religious groups of off-campus organizations holding meetings on the campus.

Recent developments include refusals by D. G. Ellson, Chairman of the Indiana University Psychology Department, and Robert Dixon, of Denison University, to speak before an Ohio State group because of the institution's screening rule, and a blast from the Council of the American Association of University Professors, which asserts that the rule "encroaches upon the effectiveness of free speech and inquiry for students and faculty."

Ban Lifted on Bulletin. The 6-month ban on export to Iron Curtain countries of non-classified technical journals, including the Bulletin of the Atomic Scientists, has been lifted as of Sept. 6. The Commerce Department's order halting the export of such journals caused a furor among newspaper editors concerned by recent attacks on their freedom "in the interest of national security." Validity of this method of increasing our security was held doubtful, since technical publications are freely available on U.S. newsstands to representatives of all Iron Curtain countries.

Soviets Ban Journals. The New York Times on October 9, in a dispatch signed by Harry Schwartz, reports that the USSR has stopped the export of ten major scientific journals. Physics, chemistry, geography, geophysics, and mineralogy are the fields affected, according to the report, which lists the ten journals. The story is not credited to any specified authority. The reporter notes that the ban contrasts with recent official protestations that the USSR was anxious for the freest flow of information between peoples.

AAAS Re-evaluates its Policies. The Nov. 2 issue of Science reports on a special conference held Sept. 13-15 at Arden House, Harriman, N.Y., to consider the basic policy and program of the AAAS. A draft statement, to be considered by the AAAS Council, calls for a fundamental re-orientation with particular emphasis on synthesizing and unifying activities "within the body of science," and "attempts to improve public understanding of science" as the major external function of AAAS. Of interest to FAS will be the recommendation that AAAS "devote more of its energies to broad problems that involve the whole of science, the relations of science to government, and indeed the relations of science to our society as a whole."

Possibly not entirely coincidentally, Science of Oct. 12 carried an article by Wadsworth Likely of Science Service calling for lobbying activities by scientists. Commenting on the recent fight over NSF appropriations, Likely lays the blame for NSF difficulties on the "organizations and individuals who make up the scientific and engineering fraternity in this country." Curiously overlooking the activities of FAS, limited only by its resources, Likely notes that "no one made the least effort to convince" legislators of the importance of an adequate appropriation. Despite this inaccuracy, minor in terms of the larger picture, FAS members will probably heartily concur in Likely's major thesis, and will regard as encouraging the indications that the largest organization of scientists in the U.S. appears to be moving toward broader participation in the social relations of science.

NSF ON MEAGER DIET

The National Science Foundation might appropriately devote early attention to problems of infant malnutrition. The \$3.5 million appropriated by Congress for 1952 will certainly limit the growth of the new-born agency and could have permanent crippling effects on its development. The President had requested \$14 million, the House reduced this to \$0.3 million, the Senate raised the ante to \$6.3 million, and the final compromise was nearly the numerical average of Congressional proposals -- \$3.5 million. With this amount, NSF can mount barely more than a skeleton program, but perhaps can recruit and hold the calibre of staff which will be necessary when and if it is allowed sufficient funds to tackle effectively its original Congressional mandate. The minimum program:

Fellowships (\$1.35 million) will be awarded to begin in the 1952-53 academic year. Emphasis will be on students entering graduate school for the first time. About 400 such fellows will receive a stipend of \$1400, free tuition and small allotments for equipment, travel, etc. A smaller number of second-year graduate students will receive \$1600; advanced predoctoral students \$1700, plus extras, including a family allowance. Under an NSF contract, the National Research Council will receive applications, administer aptitude and achievement tests, and screen the candidates according to ability. January 7 is the deadline for applications. A few post-doctoral fellowships carrying stipends of \$3000 will be awarded by the Foundation.

Research Grants (\$1.5 million) will be awarded after applications are reviewed by the NSF staff, technical committees, and Director, and approved by the NSF Board. Details and committee membership will be announced shortly, but NSF has already received a few proposals and will accept others. If the research grants are distributed by fields in accordance with NSF plans for a larger budget, about 50% will go to Mathematical and Physical and Engineering Sciences, 30% to the Biological Sciences, 15% to Medical Research, and 5% to administration.

Other functions (\$650,000) include "development of a national policy for the promotion of basic research and education in the sciences," wider dissemination of scientific information, and "support of National Scientific Register." NSF has announced no specific plans in these areas.

An important addition to the permanent NSF staff is Paul E. Klopsteg as Assistant Director to head the division of Mathematical, Physical, and Engineering Sciences. Klopsteg is on leave as Director of Research at Northwestern and is Chairman of the Executive Committee of the American Institute of Physics.

The history of the appropriation fight, which ended in the minimum-subsistence figure of \$3.5 million, contains important lessons for scientists and NSF. That many rallied to support NSF after the 98% cut by the House was evident in the transcript of the Senate hearing. At one point, Chairman McKellar commented, with some resentment, that "...since this matter has come up, I have gotten a great many letters from a great many people in my own state urging me to vote for this particular matter when it comes up. That is rather unusual." Sen. Cordon (R., Ore.) put into the record eighteen letters, including one from FAS. Other Senators indicated in various ways that they had been made aware of the concern of scientists and educators. The figure of \$6.3 million approved by the Senate, as against the \$300,000 approved by the House, can be taken as some measure of the importance -- and effectiveness -- of scientists' communications to Congress.

Collier's Magazine, in an effort to "call to reason and understanding between the East and West -- before it is too late," devoted its entire October 27 issue to a "history" of a hypothetical World War III, lasting from 1952 to 1955. The special issue, featuring articles by thirty-four leading authors, is datelined "Moscow, 1960." In an obvious move to forestall charges of warmongering, each page is headed "-- Preview of the War We Do Not Want --."

However, in the opinion of a number of critics, Collier's missed its mark. The victory of the U.S.-UN forces hypothecated in the article, with pictures of U.S. occupation forces in the Russian capitol, will make good material for the Soviet propaganda machine. D. F. Fleming, in the Nov. 10 issue of The Nation, gives a lengthy analysis of the possible harm done by the article. Its effect on the American public -- the chief readers of the magazine -- may be opposite to the avowed purpose. The anticipated victory may lead them to accept such a war as an alternative to the present armed truce. Newscaster Eric Sevareid stated in his broadcast that Sec. Acheson expressed the opinion that the Collier's article set back the State Department program by at least a year.

The FAS Council considered the present and future program of the Federation at its meeting in Chicago October 27. Highlights of the sessions follow:

The National Science Foundation, its appropriation and first year's program were discussed. The Council noted the need for the widest possible publicity and political support for its plans and activities if NSF is to succeed (see this page). The adverse effects of the McCarran Act and its interpretation by the State Department came under review. An FAS Committee on Passports and Visas was appointed to study this matter and recommend action (see Page 2). The "Chicago proposal" for a new study of atomic control was adopted (see Page 4) after slight modification of the text.

It was agreed that problems involving secrecy, security, and loyalty should stay high on the FAS list of activities and much more needs to be done. Chairman Borst was instructed to try to find another FAS group to take over continuing responsibility for this area from the Federation's Scientists' Committee on Loyalty Problems at Princeton, which became inactive last August when key participants moved to other positions.

In view of recent public discussions of "tactical use" of atomic bombs and the pressure in some quarters for military custody of these weapons, the Council felt impelled to re-emphasize the importance of keeping in the hands of the President the power to authorize use of atomic weapons of any type. A letter to the President was authorized setting forth the FAS position.

The Council also considered it necessary to correct the misconceptions about "baby atomic bombs" which have received considerable attention in the press lately. It directed that a public statement be drafted, pointing out that a critical mass of fissionable material is still required to sustain a chain reaction.

Chairman Borst was commended for his exploration of suitable types of restitution for the Japanese cyclotrons destroyed by our military sources after the war. Plans include (1) construction of a meson-producing accelerator -- deemed most appropriate by the Council; (2) support for photosynthesis research (a field in which Japan research excels); or (3) a fellowship program for Japanese students. Congress or a private foundation might be asked to subscribe funds for such a project.

R. L. Meier reported the recent activities of the Chicago chapter on Point IV (science and technology for world development), and H. C. Pollock of the Mohawk chapter reported its local activities on civil defense.

The reasons for the serious financial situation of the Federation -- and lower membership -- were discussed. These included: (1) Lack of dramatic issues -- although many are important, none capture the imagination of scientists as did the post-war issues in 1945-46. (2) The nucleus of active persons is too small, and disproportionate sacrifices are required of these in order to hold the organization together. (3) Some scientists feel a certain intimidation which appears as a wariness to join any kind of organization. (4) A great deal of moving to new jobs has resulted in loss of group leaders and personal contacts.

The Council approved the application of a group of members in the Stanford area to become an FAS chapter, and noted that the formalities had been completed during the summer for admission of the Champaign - Urbana (Ill.) chapter. H. R. Fechter and G. Chew are their respective chairmen.

The Executive Committee reported that a national membership drive had been launched by the Brookhaven chapter (c/o M. J. Moses, Brookhaven National Laboratory, Upton, L. I., N. Y.). Local campaign activity was also reported in other areas, with materials supplied by the Washington Office. The success of this campaign was described as vital to the future of FAS.

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U.S.-USSR Atomic Exchange (Continued from Page 1).
 horizons -- to provide atomic weapons for direct support of the infantryman. Presumably, U.S. production of fissionable material is approaching a point where it will be feasible to allocate enough atomic explosive to provide considerable numbers of such tactical weapons. Gordon Dean, chairman of the AEC, in a speech delivered October 5 at the Univ. of Southern California, discussed the meaning of this new development on the future of warfare. With the atomic weapons program no longer tied solely to the strategic bombing concept, but now moving in the direction of providing greater firepower in the front lines, some of the previous ideas about the moral aspects of atomic weapon use will need re-evaluation. With our preponderant industrial power, the U.S. could achieve a measure of military equality by increasing the firepower of its numerically inferior forces through the use of these highly specialized weapons.

A more detailed discussion of the effects of A-bombs against troops and military installations appeared in the Saturday Evening Post article (Sept. 29) by Stewart Alsop and Ralph Lapp. These authors consider the effects of atomic explosions on troops concentrated for assault against defensive installations in the pattern previously prescribed in military textbooks. They feel that if adequate numbers of tactical atomic weapons were made available to defend against assaults, the results might very well be disastrous for the attacker. Thus tactical atomic weapons might result in restoration of the balance of military power and act as a deterrent to any aggressor whose strength lies in manpower reserves and conventional weapons. However, even though feasibility has been demonstrated in recent tests, adequate numbers of such weapons for a full-scale war are apparently not now available, nor are they likely to be for some years.

The revelation that such weapons are possible has resulted in considerable speculation as to the advisability of using them in Korea. A recent editorial in the Washington Post, discussing the pros and cons of such use, concluded that although there are no moral reasons to refrain from using the A-bombs, there are no important military advantages which would accrue to the UN by their use under the particular combat situation facing us in Korea.

FAS Proposes New Study of Atomic Control. The "Chicago proposal," calling for an intensive search for possible new methods of international control of armaments, including atomic weapons, was adopted by the Council of the FAS at its October meeting in Chicago. This action followed circulation of the idea and widespread discussion among FAS Council delegates, after the proposal was introduced by a committee of the Chicago chapter at the Washington meeting of the Council last May. It was decided to seek the advice of political leaders as to the most effective method of transmitting the proposal to the appropriate authority.

The origin and substance of the proposal were summarized as follows: Most scientists and a large segment of the population are concerned that all possible steps may not have been taken to avert the threat of atomic destruction. The mounting stockpiles of fissionable materials will make it increasingly difficult to devise

an agreement embodying assurances against the hiding of a dangerously large, secret stockpile, since materials previously produced can be concealed. We seem to be approaching a point of no return. Every effort must be made to halt this approach before it is too late even if this means entering into some agreement that is less nearly ideal than the present frustrated majority proposal in the UN.

The fact that none of us, thinking individually about the problem on a part-time basis, has come up with a likely control scheme that shows promise of being acceptable and workable in spite of mutual distrust, indicates that group effort should be applied to the problem. The creative atmosphere of mutual stimulation achieved by the Acheson-Lillenthal Committee is suggested as a model. While a commission of international viewpoint and make-up would also be desirable, the FAS proposal concerns only the need for a high-level national commission with the advantage of access to all pertinent technical and political information available in this country. Such a commission should have the option of working without the drawbacks of publicity. While concentrating on the atomic side of arms limitation with its peculiar technological aspects, it should consider and formulate possible control schemes in relation to and, where necessary, including other armaments and problems of diplomacy.

Sharing Atomic Information. The first major amendment to the Atomic Energy Act was signed into law by President Truman on Oct. 30. The AEC is now empowered to enter into "specific arrangements" with other countries for communicating restricted data on refining, purification, and subsequent treatment of "source materials," on reactor development, production of fissionable materials, and related research development. This action can be taken when the Commission is unanimous that to do so, the "common defense and security would be substantially promoted and would not be endangered." The law specifically forbids sharing information on design and fabrication of atomic weapons or giving atomic information to any nation threatening U.S. security.

The 1946 Atomic Energy Act had put the release of atomic data under a fairly strict security system. The recent amendment received the unanimous approval of the Joint Congressional Atomic Energy Committee and was endorsed by top U.S. military leaders and the AEC.

Expansion of AEC Weapons Program. Reflecting the added emphasis now being placed on broadening the scope and types of atomic weapons (see U.S. A-bomb Tests, Page 1), the Joint Congressional Atomic Energy Committee on October 17 passed a resolution requesting the Dept. of Defense and the AEC to prepare and submit by January a joint program to make maximum use of atomic weapons in the current rearmament program. It was the hope of the Committee that by providing more atomic weapons to our armed forces, the necessary level of military strength could in the long run be achieved at a lower overall cost in money and manpower. According to Sen. McMahon, this action could result in the saving of 30 to 40 billions per year and avoid future bankruptcy because of the continuing demands for a large military preparedness effort.

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51 - 8

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