# F. A. S. *NEWSLETTER*

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June, 1963—EXTRA

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

# NUCLEAR TEST BAN SPECIAL

This extra issue of the NEWSLETTER is devoted to the nuclear weapons test ban treaty which is now coming before the Senate. It will be most helpful for future efforts if the treaty were ratified by a substantial majority of Senators. To this end, the FAS Executive Committee urges you to take promptly one or more of the following acts in support of the treaty:

1. Come to Washington and see your Senator, urging him to commit himself in favor of the treaty or explain his reasons for refusing to commit.

2. Write letters to your Senator and encourage others to do so, especially business men on their business letterheads. (Send copies to the FAS National Office.) It is important in this regard to get people who have never written before to communicate directly with their Senators.

3. Try to stimulate local radio programs, editorials in local newspapers, interviews, and meetings with local business groups, all culminating in some form of action that will be visible to Senators. On free time for radio broadcasts, see FCC policy, p. 2.

4. Talk to local ministers and urge them to make the test ban a matter for Sunday discussion. See if you can get local ministers to urge their congregations to write to Senators.

5. Long distance telephone calls to Senators will also be useful if followed by a letter or a visit.

There are about thirty Senators who may be considered doubtful but not definitely opposed to the treaty. They are awaiting their constituents' response before committing themselves on the test ban. It is, therefore, imperative that this work be done as quickly as possible.

If you have any questions, please call Mr. Singer directly, 296-3300, area code 202. Also, please write and tell us what you have done, so that we can follow-up in Washington.

ALSO, use this opportunity to get new FAS members; use the coupon below.

ROBERT R. WILSON, *Chairman FAS*

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**Federation of American Scientists,** 223 Mills Bldg., Washington 6, D. C.

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## STATEMENT OF THE FEDERATION OF AMERICAN SCIENTISTS ON THE NUCLEAR TEST BAN TREATY

**July 31, 1963**

The three-power nuclear test ban agreement recently initialed in Moscow is strongly endorsed by the Federation of American Scientists. Our members who have participated in the development of nuclear weapons welcome this first step in the control of the nuclear arms race. The Federation believes that this treaty is in the overall interest and that the risks involved are small compared with those in a world without such an agreement. We hope that this agreement may contribute to the reduction of international tensions and lead to more substantial arms control and disarmament agreements. Those of us who know from our work the capabilities of nuclear weapons and the risks of annihilation to which mankind is exposed believe that our nation should make every reasonable effort to achieve a system of effective international disarmament under proper safeguards. We are greatly encouraged by the test ban agreement and believe it deserves prompt and overwhelming support from the American people as a demonstration to the world that our nation plans to lead in the path away from nuclear destruction.

President Kennedy's speech last Friday night summarized

(Continued on Page 2)

## FAS TEST-BAN STATEMENT — (Continued from page 1)

eloquently the great risks of a continued arms spiral and the spread of nuclear weapons. We feel that the public may wish to have more information about possible risks of the nuclear test ban agreement, and we therefore discuss briefly here some relevant technical questions.

There is almost no chance that a nation could perform a series of militarily important nuclear test explosions without being detected. Techniques which have been developed during the past few years allow the detection and identification of nuclear explosions at all altitude ranges out to very great distances in space. For example, new electronic techniques for measuring perturbations in the ionosphere provide a very sensitive means of detecting explosions at upper altitudes. Methods of sampling for radioactivity, including both capture of actual debris on filters and observations of delayed gamma rays, provide a very sensitive method of identifying low-yield nuclear explosions.

It is conceivable that nuclear test explosions could be conducted so far out in space as to escape detection. However, present ground-based equipment can detect megaton tests taking place one million kilometers from the earth, and larger tests can be detected at correspondingly larger distances. If the U.S. decides to deploy satellite detection systems, then megaton tests could be detected at distances greater than the distance to the sun, out to several hundred million kilometers. Similarly, a megaton test behind the moon could be detected by delayed gamma radiation.

There are other reasons why tests at these distances must be considered unlikely. They would be difficult to conduct, would be very expensive, and might require months to elapse between the launch and the explosion. There is a high probability that the launchings would be noted and special efforts made to identify or to follow the space vehicles. The lack of experience of both the U.S. and the U.S.S.R. in conducting such experiments would be another hindrance to such a program.

It has been suggested that the Soviet Union might attempt to shield multimegaton explosions in space by interposing shields containing lead dust between the explosion and the earth. Shields could reduce the detection range by perhaps a factor of 10. Such a shielded test in deep space could cost on the order of a hundred million dollars and, like all untried systems, would involve considerable risk of failure and detection. In view of the costs and uncertainties involved, it seems unlikely that the Soviet Union would consider it worthwhile to carry out such tests. Smaller tests could be far more easily conducted underground on earth.

Because of the great expense and difficulty of methods of concealing useful nuclear test explosions in the prohibited environments, any signatory nation that decided that it needed to conduct further tests would probably use the "escape clause" rather than embark on secret tests in violation of the treaty. Yet there is good reason to expect that none of the major nuclear nations will wish to end the agreement, for the continued ban on tests offers more advantages to the nuclear powers than a period of renewed testing.

If the Soviet Union should resume nuclear testing in the prohibited environments, our nation would be prepared to conduct then such tests as required to maintain our position of nuclear deterrence. No decisive change in relative defense postures could be achieved by a sudden resumption of tests. Thus, since no major nuclear power can gain greatly by testing, we can hope that the test agreement will endure. Our nation's weapon development laboratories can be maintained by a program of underground test explosions until satisfactory arrangements are found to ban these tests also.

It is sometimes asserted that further testing is necessary for the United States to develop a defense against missiles. In fact, nuclear weapons technology is only one of many fields that must be mastered if a missile defense is to be achieved, and it appears that these other areas represent far more significant barriers to the achievement of such a system than does the area of weapon technology. Thus, the problem of discriminating between an incoming missile warhead and various decoys that might be accompanying it is exceedingly difficult, as is the related problem of handling a large number of incoming vehicles at the same time. If these critical technical problems are solved, warheads for the anti-missile missile can be developed underground. It is only measurements of radar blackout, warhead vulnerability, and actual live system tests that might require atmospheric testing. Measurements of blackout were made in recent tests in the Pacific. While atmospheric tests could assist in these developments, General Wheeler, Chief of Staff of the U.S. Army, stated in a television interview last weekend that the U. S. could now develop an anti-missile system without further atmospheric nuclear explosions.

Similarly, the development of missile systems to penetrate any Soviet missile defense can proceed without atmospheric nuclear testing. Here is involved the development of smaller warheads and penetration aids such as new guidance, communication, decoy and jamming techniques, and all these can proceed under the test ban agreement.

It has been suggested that the U.S. must develop a very high yield nuclear weapon to keep pace with the Soviet Union. On the contrary, there does not appear to be any justifiable military reason for the U.S. to have such a weapon. Our arsenal of nuclear weapons is already much more than adequate for any probable military targets. Smaller weapons, when used in sufficient quantity, provide a more reliable, more effective, and perhaps cheaper method of attacking targets than do a few high yield weapons. This is in fact the direction in which the U.S. has been moving in its weapon development and for which its present delivery systems are designed. If the U.S. had a military requirement for such large yield weapons, it would have tested them during the past years when there have been many nuclear explosions.

There are firm indications that other nations will soon sign the test ban agreement. All mankind is exposed to the dangers of radioactive contamination, and there will be great pressure from public opinion in all countries to urge governments to sign the agreement.

The Federation of American Scientists believes that it would be a national catastrophe if the pending test ban agreement were not ratified by the U.S. Senate. Ratification is clearly in our national interest. Moreover, peoples throughout the world would be deeply disappointed if our nation should reject this chance to halt the dangers of radioactive contamination of the atmosphere, and to improve the chance for further agreements. Rejection by the Senate would have a disastrous effect on U.S. prestige. On the other hand, prompt ratification by a very substantial margin will demonstrate to all the world that the U.S. stands ready to join in further steps to control nuclear armaments and to reduce the worldwide dangers of the arms race.

## FCC REAFFIRMS FREE TIME POLICY; USEFUL TO ANSWER TREATY OPPONENTS

In connection with efforts to get "equal time" on radio stations to broadcast pro-test-ban views, the following policy reaffirmation issued July 26, 1963 by the Federal Communications Commission may be useful to show to local radio station managers:

"When a licensee permits the use of his facilities for the presentation of views regarding an issue of current importance such as racial segregation, integration, or discrimination, **or any other issue of public importance**, he must offer spokesmen for all responsible groups within the community similar opportunities for the expression of the viewpoints of their respective groups. In particular, the views of the leaders of the Negro and other community groups as to the issue of racial segregation, integration, or discrimination, and of the leaders of appropriate groups in the community as to other issues of public importance, must obviously be considered and reflected, in order to insure that fairness is achieved with respect to programming dealing with such controversial issues.

"In determining compliance with the fairness doctrine the Commission looks to substance rather than to label or form. It is immaterial whether a particular program or viewpoint is presented under the label of "Americanism," "anti-communism" or "states' rights," or whether it is a paid announcement, official speech, editorial or religious broadcast. Regardless of label or form, if one viewpoint of a controversial issue of public importance is presented, the licensee is obligated to make a reasonable effort to present the other opposing viewpoint or viewpoints.

"The Commission does not seek to prevent the expression of any viewpoint by any licensee on any issue. It does seek to prevent the suppression of other contrasting viewpoints by any licensee on any issue when licensed broadcast facilities have been used for the presentation of one view of the issue. This is required by the public interest standard of the law."

# TEXT OF TEST-BAN AGREEMENT

*Here is the text of the test ban communique and the proposed treaty announced July 25 by Soviet Russia, Great Britain, and the United States:*

## AGREED COMMUNIQUE

The special representatives of the President of the United States of America and of the Prime Minister of the United Kingdom, W. Averell Harriman, Under Secretary of State for Political Affairs of the United States, and Lord Hailsham, Lord President of the Council and Minister of Science for the United Kingdom, visited Moscow together with their advisers on July 14.

Mr. Harriman and Lord Hailsham were received by the Chairman of the Council of Ministers of the Union of Soviet Socialist Republics, N. S. Khrushchev, who presided on July 15 at the first of a series of meetings to discuss questions relating to the discontinuance of nuclear tests, and other questions of mutual interest.

The discussions were continued from July 16 to July 25 with A. A. Gromyko, Minister of Foreign Affairs of the Union of Soviet Socialist Republics. During these discussions each principal was assisted by his advisers.

The discussions took place in a businesslike, cordial atmosphere. Agreement was reached on the text of a treaty banning nuclear weapons tests in the atmosphere, in outer space and under water. This text is being published separately and simultaneously with this communique. It was initialed on July 25 by A. A. Gromyko, Mr. Harriman and Lord Hailsham.

Mr. Harriman and Lord Hailsham together with their advisers will leave Moscow shortly to report and bring back the initialed texts to their respective governments. Signature of the treaty is expected to take place in the near future in Moscow.

The heads of the three delegations agreed that the test ban treaty constituted an important first step toward the reduction of international tension and the strengthening of peace, and they look forward to further progress in this direction.

The heads of the three delegations discussed the Soviet proposals relating to a pact of non-aggression between the participants in the North Atlantic Treaty Organization and the participants in the Warsaw Treaty. The three Governments have agreed fully to inform their respective allies in the two organizations concerning these talks and to consult with them about continuing discussions on this question with the purpose of achieving agreement satisfactory to all participants. A brief exchange of views also took place with regard to other measures, directed at a relaxation of tension.

## TITLE

Treaty Banning Nuclear Weapon Tests in Atmosphere, in Outer Space and Underwater.

## PREAMBLE

The Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics, hereinafter referred as the "Original Parties."

Proclaiming as their principal aim the speediest possible achievement of an agreement on general and complete disarmament under strict international control in accordance with the objectives of the United Nations which would put an end to the armaments race and eliminate the incentive to the production and testing of all kinds of weapons, including nuclear weapons, seeking to achieve the discontinuance of all test explosions of nuclear weapons for all time, determined to continue negotiations to this end, and desiring to put an end to the contamination of man's environment by radioactive substances, have agreed as follows:

## ARTICLE I

1. Each of the parties to this Treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion at any place under its jurisdiction or control:

a. In the atmosphere, beyond its limits, including outer space, or underwater, including territorial waters or high seas; or

b. in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the state under whose jurisdiction or control such explosion is conducted. It is understood in this connection that the provisions of this subparagraph are without prejudice to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions, including all such explosions underground, the conclusions of which, as the parties have stated in the preamble to this treaty, they seek to achieve.

2. Each of the parties to this treaty undertakes furthermore to refrain from causing, encouraging, or in any way participating in, the carrying out of any nuclear weapon test explosion, or any other nuclear explosion, anywhere which would take place in any of the environments described, or have the effect referred to in paragraph 1 of this article.

## ARTICLE II

1. Any party may propose amendments to this treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all parties to this treaty. Thereafter, if requested to do so by one third or more of the parties, the Depositary Governments shall convene a conference, to which they shall invite all the parties, to consider such amendment.

2. Any amendment to this treaty must be approved by a majority of the votes of all the Parties to this Treaty, including the votes of all the original Parties. The amendment shall enter into force for all parties upon the deposit of instruments of ratification by a majority of all the parties, including the instruments of ratification of all of the original parties.

## ARTICLE III

1. This treaty shall be open to all States for signature. Any state which does not sign this treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This treaty shall be subject to ratification by signatory states. Instruments of ratification and instruments of accession shall be deposited with the Governments of the original Parties—the United States of America, the United Kingdom of Great Britain and Northern Ireland, and the Union of Soviet Socialist Republics—which are hereby designated the Depositary Governments.

3. This treaty shall enter into force after its ratification by all the original parties and the deposit of their instruments of ratification.

4. For states whose instruments of ratification or accession are deposited subsequent to the entry into force of this treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Depositary Governments shall promptly inform all signatory and acceding states of the date of each signature, the date of deposit of each instrument of ratification of and accession to this treaty, the date of its entry into force, and the date of receipt of any requests for conferences or other notices.

6. This treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

## ARTICLE IV

This treaty shall be of unlimited duration.

Each party shall in exercising its national sovereignty have the right to withdraw from the treaty if it decides that extraordinary events, related to the subject matter of this treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other parties to the treaty three months in advance.

## ARTICLE V

This treaty, of which the English and Russian texts are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this treaty shall be transmitted by the Depositary Governments to the governments of the signatory and acceding states.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this treaty.

DONE in triplicate at Moscow, this ..... day of ....., one thousand nine hundred and sixty-three.

[*Editor's Note: The treaty will be dated when it is officially signed by the respective governments. On July 25, it was merely initialed by authorized representatives of the three governments.*]

# ESTIMATE OF SENATE VOTE ON TEST-BAN TREATY RATIFICATION

## PROBABLE "NO"

*Republicans:*

Allott (Colo.)
Bennett (Utah)
Curtis (Nebraska)
Dominick (Colo.)
Goldwater (Ariz.)
Hruska (Nebraska)
Jordan (Idaho)
Mechem (N. M.)
Simpson (Wyo.)
Tower (Texas)
Young (N.D.)

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*Democrats:*

Byrd (Va.)
Eastland (Miss.)
Ellender (La.)
Jackson (Washington)
McClellan (Ark.)
Russell (Ga.)
Stennis (Miss.)
Talmadge (Ga.)
Thurmond (S. C.)

9

TOTAL—22

## NEED ENCOURAGEMENT**

*Republicans:*

Aiken (Vt.)
Beall (Md.)
Boggs (Del.)
Dirksen (Ill.)
Fong (Hawaii)
Hickenlooper (Iowa)
Kuchel (Calif.)
Miller (Iowa)
Morton (Ky.)
Mundt (S.D.)
Pearson (Kansas)
Prouty (Vt.)
Saltonstall (Mass.)
Scott (Pa.)
Smith (Me.)
Williams (Del.)

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*Democrats:*

Anderson (N.M.)
Cannon (Nev.)
Ervin (N.C.)
Jordan (N.C.)
Johnston (S.C.)
Lausche (Ohio)
Robertson (Va.)
Symington (Mo.)

8

TOTAL—24

** This category has been drawn up by erring on the side of caution. It includes all Senators about whom there is the slightest doubt.


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Chairman.....Robert R. Wilson

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