

DEMOCRATIC ADVISORY COUNCIL
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FOR RELEASE SUNDAY NEWSPAPERS
DECEMBER 20, 1959

NUCLEAR TESTING
(A Statement by the Democratic Advisory Council)

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The Democratic Advisory Council, recognizing that the United States test ban on nuclear weapons will expire at the end of this year, has studied carefully the problem in consultation with its Advisory Committee on Science and Technology. It is of the utmost importance that the United States define its policy on the nuclear test issue. The Council concurs in the conclusion of its Advisory Committee that nuclear testing should not be resumed just now while negotiations on an inspection system are active and may be productive.

The Council recommends:

- A. Extension of the ban on atmospheric nuclear tests as long as the existing test suspension is continued by the Soviet Union. The technical apparatus for monitoring such a test ban is in existence and is in operation.
- B. Temporary extension of the ban on underground nuclear tests on the condition that agreements be reached soon for adequate monitoring of such tests under an international inspection system.
- C. Review from time to time of the suspension policy, especially in the event of tests by other nations.

Attached is the full text of the statement on nuclear testing submitted to the Council by the Advisory Committee on Science and Technology.

NUCLEAR TESTING

The present United States moratorium on nuclear tests will expire January 1, 1960, and pressure is mounting to resume testing.

The Advisory Committee on Science and Technology urges that the United States not initiate the resumption of the testing of nuclear weapons as long as negotiations at Geneva indicate progress toward reaching agreement on a satisfactory inspection system. To resume nuclear testing at this time would dim hopes for disarmament and might signal the intensification of the runaway arms race.

The Committee regards the present temporary cessation of nuclear tests as a first step toward disarmament and the relaxation of tensions. It recognizes that world tensions should lessen as a prelude to disarmament, but it must be emphasized that there is no precedent for the situation in which the world finds itself with the Great Powers possessing the power of continental destruction. A second step toward disarmament will be achieved if mutually satisfactory agreements on an inspection and monitoring/^{system}to enforce a continuing test ban can be reached. Adequate controls to implement any international agreements of this nature must form the firm foundation for building mutual confidence among the nuclear powers.

There are limits to the sensitivity and reliability of the instruments available for the detection of nuclear explosions. Existing apparatus permits the detection of air-burst bombs down to quite low yields and a reliable system of monitoring stations can be devised without recourse to very large numbers of monitors. Underground tests are more difficult to detect with existing equipment especially if one attempts to restrict the network of monitoring posts to something of the order of two hundred installations. The technical problems involved in detecting underground nuclear detonations are such that it

is difficult to discriminate nuclear explosions of low yield against the background of natural events occurring in the earth's crust.

It is recommended that additional research and development be undertaken to increase the technical capability of instrumental detection. In this connection, the National Peace Agency proposed by the Committee on October 11, 1959, would be a valuable national asset for conducting this research and development.

It must be recognized, however, that improvements in detection instruments cannot guarantee a "foolproof" inspection system. There will inevitably remain a residual number of suspicious events in the very low-yield domain for which mobile inspection is required.

Insistence upon foolproof inspection systems is not likely to further negotiations aimed at achieving agreement on the test issue. Intensive efforts should be made to achieve a high degree of success in detecting nuclear explosions but absolute perfection is another matter. No nation will vault into a position of technical superiority on the basis of a single or even several low-yield nuclear tests conducted below the earth's surface. It has required approximately two hundred tests of devices and weapons under ideal conditions and at full power to produce the present arsenal of nuclear weapons. A majority of these tests has been conducted by the United States and even if the Soviets succeeded in conducting a small number of nuclear tests illicitly, the United States security would not be significantly affected.

The Committee appreciates that the maintenance and development of military weapons while seeking disarmament agreements at the conference table is sound policy, and fully realizes that further nuclear tests would probably increase significantly the explosiveness of warheads for ballistic

missiles. However, in the light of world opinion, the anticipated military benefits would be far outweighed by the unfavorable international consequences of unilateral resumption of bomb tests.

In recommending extension of the nuclear test moratorium, the Committee believes that the United States should not agree to indefinite suspension of nuclear testing without controls. The extension is contingent upon observance of the test ban and upon satisfactory progress in negotiations on inspection systems.

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