

MARCH 31, 1976

FACT SHEETARMS CONTROL AND DISARMAMENT AGENCY
THRESHOLD TEST BAN TREATY

Following negotiations in Moscow in the spring of 1974, an agreement was reached during the July summit meeting which bans nuclear weapon tests having a yield above 150 kilotons (equivalent to 150,000 tons of TNT). Both nations have the capability by their own national technical means to distinguish between underground nuclear explosions and earthquakes when the yield is this high. The treaty contains a specific commitment by the parties not to interfere with the national technical means of verification of the other, and provides for regular consultations to take care of any questions which might arise relating to the implementation of its provisions.

The treaty is accompanied by a protocol detailing technical data to be exchanged and limiting testing to specific designated test sites to assist verification. The data to be exchanged includes information on the geology of the testing areas. Geological data--including such factors as density of rock formation, water saturation, and depth of the water table--are useful in verifying test yields because of the seismic signal produced by a given underground nuclear explosion varies with these factors at the test location. After an actual test has taken place, the geographic coordinates of the test location are to be furnished to the other party, to help in placing the test in the proper geological formation and thus in assessing the yield. Other information available to the United States will be used to cross check the data provided.

The treaty also stipulates that data will be exchanged on a certain number of "calibration tests." By establishing the correlation between given yields of explosions at the specified sites and the seismic signals produced, this exchange will help improve assessments on both sides of the yields of explosions based on the measurements derived from their seismic instruments. The tests used for calibration purposes may be tests which have been conducted in the past or may be new tests.

Agreements to exchange the detailed data described above represents a significant degree of direct cooperation by the two major nuclear powers in the effort to control nuclear armaments. For the first time, each party will make available to the other data relating to its nuclear weapons program.

For the purposes of the treaty, all underground nuclear explosions at specified test sites will be considered nuclear weapon tests. Engineering applications of peaceful nuclear explosions (PNEs) must be at locations away from the specified test sites. Since it is not possible to distinguish between the technology of nuclear devices for peaceful engineering purposes and that for nuclear weapons, the question of how a program for peaceful nuclear explosions might be carried out without violating the threshold treaty is a complicated one. Article III of the treaty committed the United States and the Soviet Union to pursue this problem in subsequent discussions.

These discussions began in Moscow in October 1974 and have continued to the present--in a series of six rounds. As noted in today's statement, considerable progress has been made and negotiations are continuing in Moscow to resolve the few remaining issues. We remain hopeful that a satisfactory PNE agreement can be concluded in the near future.

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