

U.S. VULNERABILITY BY 1960'S IS CITED

Congress Is Told a Nuclear Attack by Soviet Union Could Kill 82 Million

Special to The New York Times.

WASHINGTON, May 28—Congress heard today that the Soviet Union would be capable in the Nineteen-sixties of delivering a hydrogen-bomb attack that could kill 82,000,000 persons.

Charles Shafer, Weather Bureau meteorologist assigned to the Federal Civil Defense Administration, projected the attack with hydrogen bombs aggregating the equivalent to 2,500,000,000 tons of TNT before the Joint Congressional Committee on Atomic Energy.

The committee is exploring the effects on humans and animal and plant life of atomic radiation and fall-out.

The theoretical attack with 250 thermonuclear bombs on primary targets, including airfields and industrial areas from coast to coast, would produce half the fatalities from blast and half from radiation, he estimated.

Based on Civil Defense Study

In addition, he said, there would be 24,000,000 surviving casualties and 60,000,000 "relatively uninjured persons but suffering some effect up to sixty days."

The figures resulted from a theoretical attack worked out by the Civil Defense Administration and based on weather and other conditions of last Nov. 20 and 21.

The grim prediction prompted Representative James E. Van Zandt, Republican of Pennsylvania, to ask whether such a devastating attack was within the capability of the Soviet Union.

"We were advised that this was within the range of enemy capabilities in the Nineteen Sixties," Mr. Shafer replied.

Conflicts With A. E. C. View
Representative Van Zandt pressed his question and drew the same answer.

"Well," he said, "we can use our imagination."

He did not ask nor did Mr. Shafer volunteer the source of the advice that the Soviet Union would be able to mount such an attack.

The committee also heard that radioactive debris from the testing of nuclear bombs and weapons was concentrating in stratosphere over the world's North Temperate Zone, where heavy population centers are located.

This testimony from Dr. Lester Machta of the United States Weather Bureau conflicted with the theory advanced by scientists of the Atomic Energy Commission that the fall-out from the stratosphere was fairly evenly distributed over the earth and posed no threat to humans.

Many scientists, religious leaders and others have challenged the commission's contention and have called on the United States, Britain and the Soviet Union to halt nuclear tests.

Dr. Machta cited a recent meteorological hypothesis by a British scientist, Dr. A. W. Brewer, to support his belief that radioactive material was being carried to the North Temperate Zone even though the nuclear explosions occurred in the other areas.

Representative Melvin Price, Democrat of Illinois, noted his theory was at "variance" with that of Dr. Frank Libby, a physicist member of the commission. Mr. Price said Dr. Libby made a speech last month in which he said distribution of the radioactive material was almost uniform around the globe.

Tells of Recent Data

Dr. Machta replied that his information was received only last week and "suggests otherwise."

This caused Senator John O. Pastore, Democrat of Rhode Island, to inquire whether he was depending upon the English scientists, Dr. Brewer, or whether he knew there was "concentrated contamination" in the stratosphere of the temperate zone.

Dr. Machta said he had classified information that led him to his conclusion that "the bulk of the radioactivity in the stratosphere is in the Northern Hemisphere," because of the upper air currents which swirl toward the poles.

But, he said, he had to use Dr. Brewer to illustrate his point at the public hearing.

The only speculation in the matter, he said, was what brings the radioactivity to the northern areas.

Mr. Shafer, in explaining a colored chart of the effects of

the devastating atomic attack by an enemy, said it was based on the assumption that there would be no advance evacuation by civilians.

It was primarily a "duck and cover operation," he said.

Measures Could Cut Toll

Assuming a "50 per cent effective evacuation to five to fifteen miles from the bomb blasts, and a shelter program, the fatalities would be cut to 31,000,000, he said.

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May 29, 1957

My Lord:

Here is today's New York Times front-page report of the hearings on the effects of atomic radiation and fall-out on humans and animal and plant life.

Sincerely yours,

✓ The Rt. Hon. Earl Russell
Plas Penrhyn
Penrhynudraeth
Merioneth, North Wales

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