PUBLIC SAFETY

Urge UN Radiation Study

Group would analyze fall-out from explosions, collect data on biological and genetic effects of the radioactive clouds, and recommend procedures to prevent passing danger point.

➤ A UNITED Nations Commission to study the mounting threat to mankind from radiation spewed into the air by atomic and hydrogen bomb tests was urged by the Federation of American Scientists.

Effects of nuclear explosions present a common danger not restricted by national boundaries, the Federation pointed out. Its proposal for an international scientific commission to study radiation dangers was presented both to the State Department and to the chief United States delegate to the UN, Henry Cabot Lodge Jr.

After investigating the problem of radioactive contamination, particularly fall-out, resulting from bomb tests, and the radiation intensities produced, the commission would evaluate scientific opinion on the biological and genetic effects of radiation on humans. It would then establish an agreed danger threshold. Results of the Commission's studies as well as its recommendations for procedures to avoid exceeding the danger mark would be reported to the UN's General Assembly.

The U. S. would do "much to counter the bad propaganda results of past tests" by being the first nation to make such a proposal, Federation chairman M. Stanley Livingston, professor of physics at Massachusetts Institute of Technology, said. In presenting its plan for a UN commission, the U. S. should also offer to make available information on radiation measurements and biological effects as well as any instruments or facilities needed to get more data.

This offer would be similar to the U. S. gift of fissionable materials in the Atomic Pool plan, the Federation said. It would counter the propaganda setback the United States has suffered in world opinion, particularly among Asian nations, because of the radiation injuries to Japanese fishermen on the Fukuryu Maru 90 miles from the Bikini H-bomb test of March 1, 1954.

The Federation, a group of scientists formed in 1945, is concerned with the political implications of scientific developments. It was known as the "league of frightened men" because of its efforts after Hiroshima to control the destructive potential of the atom. Dr. Livingston pointed out that recent events have shown that the Federation's fright only came earlier than the fright others are now starting to show.

The A-bomb explosion at Hiroshima is now dwarfed by the fury of thermonuclear explosions, which may be leading to the day when all the world is a laboratory and all living things the experimental objects. The possibility of long-term damage to the human race through a general world-wide increase of atmospheric contamination is an international issue, the Federation said.

If Russia made the proposal for a UN study commission before the U. S. did, Dr. Livingston pointed out, the U. S. would be forced to cooperate to avoid the charge by other nations that military weapons development was being put ahead of the health and safety of other peoples.

Science News Letter, March 19, 1955

METEOROLOGY

To Spy on Tornadoes

➤ A FOUR-PRONGED spy system to keep track of tornadoes and to develop more accurate warning predictions is being proposed by meteorologists for the 1955 "twister" season, now swinging into its annual spring peak.

Flying airplanes into the squall lines where tornadoes are born, setting up ground equipment in a dense network, more radar sets searching for storm areas and more upper air observations are the four methods.

Tornadoes appear and disappear so fast that little is known about how they are triggered, although the general atmospheric conditions required to spawn them have been understood for some time. (See SNL, March 12, p. 170.)

Instant communication with stations on all sides of the squall lines so that these 100-mile storm fronts can be tracked, both visually and photographically, minute-to-minute, is also being planned.

Ground observations in a close network have yielded some information about these lines. A sudden rise in barometric pressure, for instance, always accompanies squall lines. If air observations could also be made in as close a network, meteorologists believe they might learn the exact factors required for tornado formation.

The four special research methods are necessary because the usual Weather Bureau recording stations are 100 miles or so apart. Since squall lines average about 100 miles long, only by much closer spacing of radar, recording instruments and photographic equipment can weathermen find out what is actually going on inside the stormy area.

Financing the four-pronged project would cost about $5,000,000, it is estimated. Meteorologists are hoping that Congress will pass a special appropriation for this life- and dollar-saving program in time for research to start this year.

If a tornado develops in one of the squall lines that has been thoroughly probed, meteorologists believe they could detect in their records the factors that made the tornado-bearing squall line differ from those in which no "twisters" occurred.

Science News Letter, March 19, 1955

The death rate from motor vehicle *accidents* in the United States dropped to 14.6 per 100,000 of the population in 1954, the lowest rate since 1949.

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