

Letters to the Editor

A Case for Discriminate Nuclear Weapons

To the Editor:

In a letter published Feb. 16, two scientists prominent in nuclear weapons research criticized C. L. Sulzberger's recent suggestion that discriminate tactical nuclear weapons be considered for NATO in lieu of large numbers of ground forces.

Drs. Herbert F. York and Herbert Scoville Jr. allege that low-yield fusion weapons, using neutron radiation to produce enemy casualties, "are of questionable tactical military value." They continue, "Unless subjected to extraordinarily high superlethal exposures, which would occur rarely, if at all, in such an airburst situation, radiation will produce casualties only after a protracted delay."

Their data source, the Government publication "The Effects of Atomic Weapons," states that a radiation dosage in excess of 5,000 roentgens will produce casualties within thirty minutes, with certain death resulting. Also, from this publication, one calculates that a yield of fifty tons TNT equivalent, burst at a height of 1,000 feet, will produce this dosage level out to about a third of a mile from ground zero. Moreover, at this burst height

the blast and heat effects are not of sufficient intensity to cause serious damage to urban structures.

So this military situation, instead of occurring "rarely if at all," would seem to be a predictable application for low-yield discriminate tactical weapons whose use would have an aftermath far less destructive of urban areas than traditional conventional warfare.

Drs. York and Scoville reject "the tremendous manpower commitments and economic costs of conventional warfare which Vietnam has taught us are too high to bear." Yet they are unwilling to accept low-yield fusion weapons. Herein is the "Ugly Dilemma" to which Sulzberger refers.

They contend that low-yield fusion weapons "will of necessity be very expensive and not provide major economic savings." On the contrary, such weapons would consume but extremely small amounts of heavy hydrogen—costing perhaps a few per cent of the fissile material necessary to produce the same level of military effectiveness but hardly the same measure of discrimination.

The two scientists are correct in stating that there is no guarantee that

tactical nuclear employment "will not escalate into all-out nuclear warfare." However, they ignore the mutually terrible consequences of general thermonuclear war in the era of strategic nuclear parity between the United States and the Soviet Union. In such a context, would not both sides strive to prevent escalation to extinction whether or not there is a ground war in Europe?

We do face an "Ugly Dilemma," made more difficult because the Soviet Union seemingly has adopted a tactical nuclear doctrine in the Warsaw Pact area. Yet the matter ought to be faced up to in the best traditions of American intellectualism.

So it is to be hoped that Mr. Sulzberger's provocative columns, the response to them by Drs. York and Scoville, and this letter will generate a complete exploration incorporating different perspectives of the continued reliance on conventional forces in Europe vs. their replacement by nuclear weapons less destructive than those now deployed, and other possible options.

ROBERT M. LAWRENCE

Tucson, Ariz., March 2, 1971

The writer, Associate Professor at the University of Arizona, is a former Defense Department consultant.