The local fall-out resulting from extensive use of "dirty" bombs would cause the death of a large part of the population in the country attacked. Following their explosion in large numbers (each explosion equivalent to that of millions of tons of ordinary chemical explosive), radioactive fall-out would be distributed, not only over the territory to which they were delivered but, in varying intensity, over the rest of the earth's surface. Many millions of deaths would thus be produced, not only in belligerent but also in non-belligerent countries, by the acute effects of radiation.

There would be, further, substantial long-term radiation damage, to human and other organisms everywhere, from somatic effects such as leukemia, bone cancer, and shortening of the lifespan; and from genetic damage affecting the hereditary traits transmitted to the progeny.

Knowledge of human genetics is not yet sufficient to allow precise predictions of consequences likely to arise from the considerable increase in the rate of mutation which would ensue from unrestricted nuclear war. However, geneticists believe that they may well be serious for the future of a surviving world population.

It is sometimes suggested that in a future war, the use of nuclear weapons might be restricted to objectives such as military bases, troop concentrations, airfields, and other communication centres; and that attacks on large centres of population could thus be avoided.

Even tactical weapons now have a large radius of action; cities and towns are commonly closely associated with centres of supply and transportation. We, therefore, believe that even a "restricted" war would lead, despite attempted limitation of targets, to widespread devastation of the territoy in which it took place, and to the destruction of much of its population. Further, an agreement not to use cities for military purposes, entered into in order to justify their immunity from attack is unlikely to be maintained to the end of a war, particularly by the losing side. The latter would also be strongly tempted to use nuclear bombs against the population centres of ths enemy, in the hope of breaking his will to continue the war.

4. Hazards of Bomb Tests

At our first conference it had been agreed that while the biological hazards of bomb tests may be small compared with similar hazards to which mankind is exposed from other sources, hazards from tests exist and should receive close and continued study. Since then, an extensive investigation by the United Nations Scientific Committee on the Effects of Atomic Radiation has been carried out and its authoritative conclusions published. In this case, too, scientists from many different countries have been able to arrive at a unanimous agreement. Their conclusions confirm that the bomb tests produce a definite hazard and that they will claim a significant number of victims in present and following generations. Though the magnitude of the genetic damage appears to be relatively small compared with that produced by natural causes, the incidence of leukemia and bone cancer due to the