

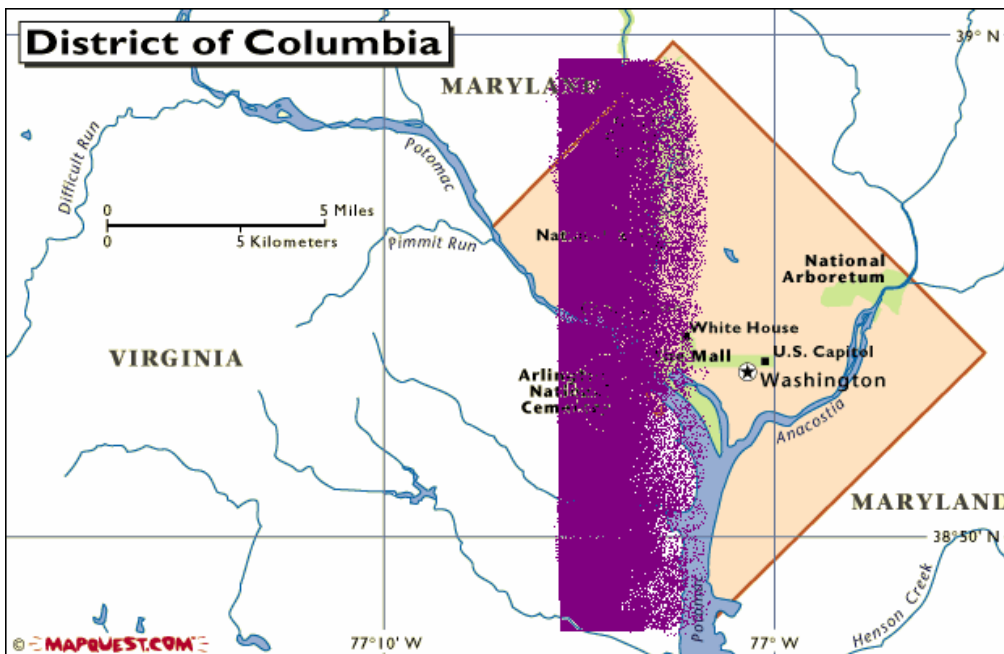
Comparing Lethal Areas of Chemical, Biological, and Nuclear Weapons

SARIN GAS



Red represents the area affected by 1,000 kg of sarin nerve gas, delivered by airplane as aerosol line source. Area affected: .8 km squared. 400 – 800 deaths.

ANTHRAX



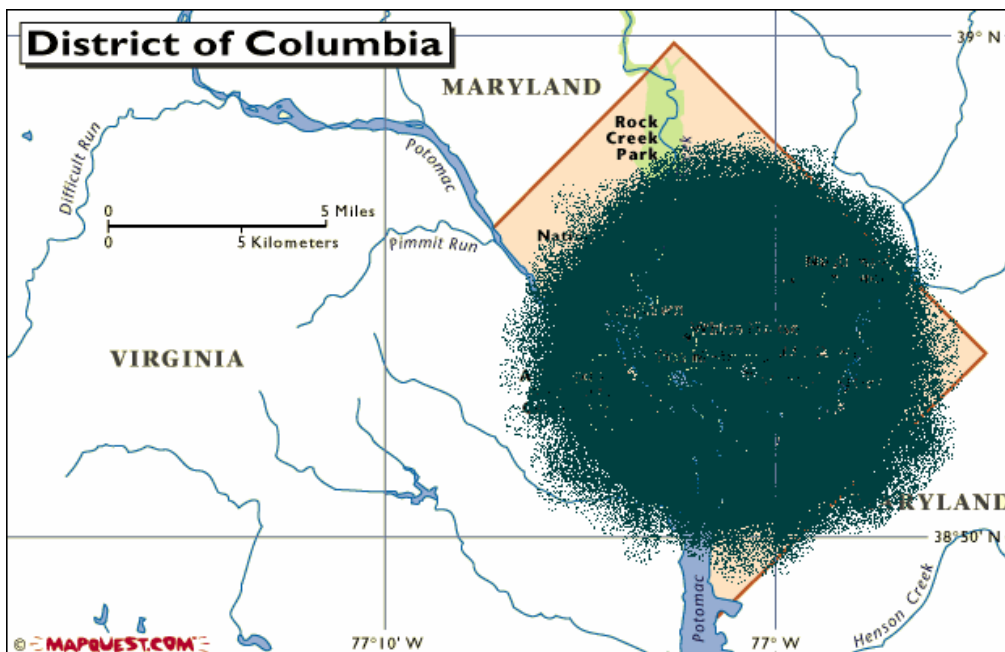
Purple represents the area affected by 100 kg of Anthrax spores, delivered by airplane as aerosol line source. Area affected: 140 km squared. 420,000 to 1,400,000 deaths.

ATOMIC BOMB



Orange represents the area affected by an atomic bomb, 12.5 kt TNT-equivalent. Area of 5 lb/in overpressure. Area affected: 7.8 km squared. 23,000 to 80,000 deaths.

HYDROGEN BOMB



Green represents the area affected by a hydrogen bomb, 1.0 Mt TNT- equivalent. Area affected: 190 km squared. 570,000 to 1,900,000 deaths.

NOTE ON LETHALITY OF WEAPONS: Figures for sarin gas and anthrax show the lethal areas of single airplane-loads of chemical and biological weapons, assuming a highly efficient, line-source delivery of the killing agents.

The shaded areas are drawn such that although some people within the defined area would survive, about the same number in the outer, less lethal areas would die; therefore, the defined areas give approximations of the total number of unprotected people who could be expected to die in each scenario. The lethal area for the nuclear blasts is assumed to be that receiving 5 lb/in squared of overpressure – enough to level wood or unreinforced brick houses.

SOURCE: Office of Technology Assessment, *Proliferation of Weapons of Mass Destruction: Assessing the Risks*, August 1993.