

## MODERN TACTICAL NUCLEAR WEAPONS

Most existing tactical nuclear weapons date from the 50s and 60s. In order to replace them, three types of tailored effect warheads are being considered. These ERW, RRR and EMP warheads have applications as, respectively, anti-personnel, anti-material and anti-electronic weapons.

1. Detailed calculations of the effects of the neutron bomb (ERW) against tank crews clearly show that the ERW is not an effective anti-tank weapon. This is because modern armor technology maximizes the protection of tank crews from nuclear radiations (1). Because of this, and of the greater efficacy of conventional anti-tank weapons, it is possible that the neutron bomb might not be produced ("Washington Post", 14th March 1983). Even as an anti-personnel weapon, chemical weapons seem to be militarily more effective (ibid).

2. The Reduced Residual Radioactivity warhead (RRR), a weapon which enhances blast rather than radiation, has been successfully tested in 1979 in the USA (2). This weapon exploits to the maximum the mechanical effect, which is decisive on the battlefield.

3. The development of an Enhanced Electromagnetic Pulse warhead (EMP) has recently been confirmed ("Washington Post", 16th April 1983). This weapon is intended to damage electronic and communication equipment. It could be used, for example, to disable radar bases or the electronic of battleships.

References:

- 1) Sahin S. and Kumar A. "Assessment Studies of the Biological Effects of the ERW", Transactions of the American Nuclear Society, vol.43,p. 635, 1982.
- 2) Gsponer A., "The Neutron Bomb and the Other New Limited Nuclear War Weapons". Bulletin of Peace Proposals, vol. 13, No. 3, p. 221, 1982.

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