



Subject: Abstract for the 1st European Symposium on NLW

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Infrapulse-Generator: an effective non-lethal weapon

The Infrapulse-Generator, which has been developed by the Fraunhofer-Institut ICT, is an anti-personnel non-lethal weapon to bring about persons to give up their hostile mission.

The assignment to the known technological categories is not well-defined, because it deals with a multi-effects non-lethal weapon. The physical mechanisms of effectiveness concern repetitive shooting of vortexes, emitting of periodically generated non-lethal pressure waves and of acoustic radiation.

It is of an additional advantage to use vortexes as a platform for chemical irritants (particles, gas,..) like odorous substances or for other deterrent materials.

Therefore this system can be assigned principally as well as to the mechanical, radiation or to the chemical sub-category.

The Infrapulse-Generator is a combustion driven equipment, its power is roughly 200 kW, and the frequency about 15 Hz, this means within the Infra-region. The system does not depend on any material or electrical supply.

Based upon of the vortex formation, it is possible to set up very fast a kinetic barrier to prevent persons for instance to enter an restricted area, or to separate two hostile groups from each other. The distance of effectiveness is appr. 60 m.

Possible areas of deployment are for offensive operations (mobile system) the distraction of crowds in particular, and as for defensive operations (stationary system) to keep crowds off from areas at risk.

In the near future the Infrapulse-Generator will be fielded.