

TITLE: Physiologically Incapacitating Device for Counterterrorism and Hostage Rescue

TYPE OF EFFORT: ACTD

PROPOSED BY: US Army Research Laboratory
Survivability Lethality Analysis Directorate
and Edgewood Research, Development & Engineering Center

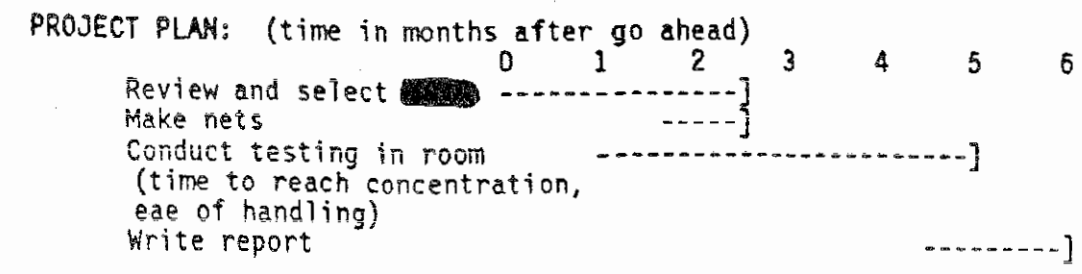
CAPABILITY SOUGHT AND USES TO WHICH IT COULD BE PUT: The purpose of this type of device is to assist rescue of hostages and seize their captors in closed buildings with minimal risk and injury, if any, to the hostages, captors, and the assault team. The device can also be used for assault teams when they want to capture individuals or take a facility with minimal or no loss of life and damage to the facility.

TECHNICAL DESCRIPTION: The approach is to use readily available [redacted] blocks containing a [redacted]. When the [redacted] is tossed into a room, the [redacted] will activate and melt the blocks to release [redacted]. [redacted] will incapacitate the inhabitants within several breaths and could even lead to [redacted]. The build up of [redacted] will also [redacted] increasing the physiological burden on the inhabitants. The hostage rescue team could immediately enter the room with standard [redacted] and [redacted] to capture the terrorists and remove the hostages safely. The [redacted] can be removed from the room by [redacted].

The [redacted] blocks will be in [redacted] size (a little smaller than a [redacted]) and carried in [redacted]. A hole can be drilled into the [redacted] with [redacted] and then the [redacted] inserted in the hole. If the hole is too loose it can be plugged by [redacted]. Because of its modularity any normal room size could be accommodated.

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RISK LIMITATIONS; All the technology to make this device work is currently available. [redacted] is readily available in most urbanized areas around the world, or if insulated properly, can be transported with minimal deterioration. The [redacted] must be selected from current military inventories. A mesh bag must be sewn. No new discoveries are needed. There are no operational limitations because it is safe to use around humans as long as they are removed from the area within minutes of [redacted]. It is not susceptible to countermeasures unless [redacted]. [redacted] are not readily available in the commercial market.



Note: Because of the known physiological effects of carbon dioxide at greater than [REDACTED] human testing will not be done unless requested. Human testing would add another \$100 K and three months time.

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PROJECT COST BY FISCAL YEAR: \$130 K

ORGANIZATION POINT OF CONTACT: [REDACTED]

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