

Commercial Backpack Blower/Sprayer System

1.) DESCRIPTION OF PROPOSAL

This proposal centers around the use of a commercially available Stihl SR400 Blower/Sprayer back pack unit that can be used to disseminate either powders or liquid point source chemical clouds. A picture of unit along with performance data is enclosed for consideration. As stated in this information, this unit can develop air velocity in excess of 220 MPH and can propel liquids/powders up to 40 feet horizontally. This unit weighs just 24 pounds(plus material) giving the operator exceptional ease of movement and at a cost of around \$600 provides a cheap means of achieving your objective.

Incapacitate Personnel - As stated above, powders or liquid compositions can be dispensed into the blower's air stream and according to technical information, disseminated up to 40 feet. Visual smoke, oil or riot control material, such as, pepper spray or "MACE", could easily be blown at personnel to incapacitate the individuals. Spraying liquids or powders at individuals, because of the uncertain nature of what the material is, will undoubtedly instill a sense of paranoia and fear in the individual.

Seize Personnel - Smoke materials and/or oils sprayed on individuals can obviously aid in their apprehension. This type of controlled dissemination, depending on the materials used, could impede the progress or retreat of an individual.

Clear Facilities of Personnel - The saying, "where there's smoke there's fire" is a phrase that's as old as the hills. But, in reality, the phrase is based on the belief that fire always accompanies smoke and fire instills panic. The thought that the building may be on fire is in itself a hazard that motivates individuals to flee the area.

Denial of Area to Personnel - Smoke is a paralyzing medium. Human nature is to flee an area filled with smoke. It can be assumed the most individuals would be very reluctant to even think of entering an area filled with smoke. In addition, in close quarters, a 220 MPH high velocity air blast could provide enough distraction to impede an individuals access to an area.

Denial of Area to Vehicle - Smoke offers a paralyzing medium that also has a tendency to instantaneously halt vehicle movement. A vehicle driven into a dense smoke cloud quickly experiences loss of direction and mobility. What once appeared as endless driving area is immediately reduced to the confines of the vehicles interior zone, which creates an instantaneous sense of panic and uncertainty of direction that will paralyze the driver's movement.

Disable/Neutralize Vehicles - Oils and/or paint can be sprayed directly on a vehicle's windshield and windows instantaneously limiting the driver's visibility. The inability to adequately see will immediately stop vehicle progress.

2.) BACKGROUND

Armies have used smoke to confuse and deceive their enemies throughout history. Common sense tells us what can be seen can be hit. Smoke offers a means to conceal offensive and defensive posturing which can give the user an advantage. Smoke is cost effective. Smoke clouds can be produced at minimal cost but can have invaluable end results in tactical situations.

ENCLOSURE (1)

Specifically, smoke is used to: deny the enemy information; reduce effectiveness of enemy acquisition means; restrict observation of area; disrupt movement, operations, and control; create conditions of surprise; and deceive the enemy.

3.) DESCRIPTION OF WORK

Necessary modifications should be minimal once the back pack sprayer is received. A test plan will be developed and testing of the hardware will not require an extensive or costly amount of time. Practical testing could include trials that would: as an example, test the real time dispersion necessary to fill a fixed volume area; test to determine time and range necessary to cover a person or vehicle with oil/paint material; and a test to determine what effect the air blast would have on an individuals movement.

4.) DISCUSSION OF RISK

The risk of implementing this proof of principle program is minimal. The cost and scope of work are well within technical means and conceptual application. Depending of the environmental conditions there is a risk of the equipment operators accidentally being exposed to their own disseminated material but, if the users are adequately equipped with full-face respirator and protective clothing, this risk is greatly reduced.

5.) DESCRIPTION OF DELIVERABLES

An entire back pack blower/sprayer and project report should be the only anticipated deliverable items. This pack is set up to dispense liquids and several accessory kits (booster pump kit, dry spreader kit, ULV rotary nozzle, and gutter kit) would be purchased to assess their practical application in the over all use scenario. All of which will be deliverable items upon completion of the project. Final Report which would document overall test objectives and results.

6.) COST ESTIMATE

\$50,000

7.) Point of Contact

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Note: Information sheet pertaining to this proposal is attached as separate file tilted Stihl2.pcx