# THE HOT ZONE

They are on standby 24 hours a day. Poison gas, deadly germs or dirty bombs are the kind of threats troopers from the Chemical, Biological, Radiological and Explosives (CBRE) Defence Group are trained and equipped to deal with.

## **Rolling into action**



# **Tackling explosive threats**

If a suspicious object is thought to contain explosives, bomb sniffing dogs or sensors that can pick up explosive vapours are used to inspect the object thoroughly.

Robots act as the "eyes" of bomb disposal experts and can be sent in harm's way for a closer look at suspicious objects. Some remote-controlled devices can fit between narrow aisles in aircraft, buses and trains.

Explosive Ordnance Disposal experts from wearing blast-resistant suits can choose to destroy suspicious packages on the spot, or remove them to another location for closer inspection to pick up clues on how the device was made.

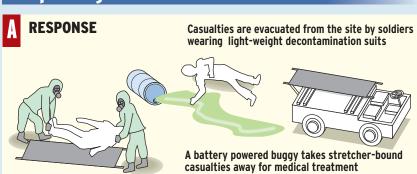
## **DISPOSE**

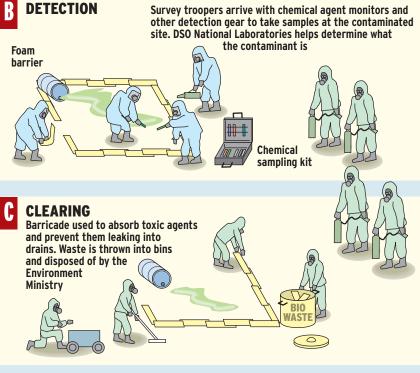
A blast-proof armoured container, towed behind a Land Rover, is used to transport suspicious packages to a safer location or for disposal.



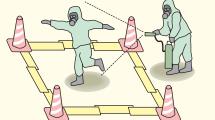
The Total Containment Vessel is placed on a trailer and towed behind a Land Rover Defender 110 to a safe place where bomb disposal experts can examine or dispose of the suspicious package

## Responding to chem-bio incidents





**DECONTAMINATION** Soldiers working at the contaminated site are sprayed with a DS-10 decon sprayer before they are allowed to leave the site



**Decon Shower System cleans** soldiers of nasty chemical agents. Water from the shower is collected and



## Who they are



36th Battalion Singapore Combat Engineers (36 SCE). An Explosive Ordnance Disposal unit, 36 SCE specialises in bomb disposal and in neutralising improvised explosive devices that may have chemical, biological or radiological payloads.



39th Battalion Singapore Combat Engineers (39 SCE). This unit can survey the environment to detect chemical, biological or radiological threats. It can collect samples of contaminated material for analysis and also specialises in cleaning up places of chem-bio or radiological threats.

## Did you know?



Sniffer dogs are used to detect explosives because dogs have a highly developed sense of smell. Several breeds like Alsatians, English Springers, Labradors and Cocker Spaniels are used. Such dogs are retired after seven years and offered for adoption. First priority goes to the dog's handler, then to the men and women from the unit. Five dogs have already found retirement



This robot, called a Mark8+ Wheelbarrow, cost a cool \$250,000 - about the price of a luxury car. Wheelbarrows carry two colour TV cameras and are used to inspect suspicious objects. The Wheelbarrow's water disruptor packs a wallop and can tear open suspicious packages with powerful water jets.



Tuesday is "gas mask day" at 39 SCE and all soldiers have to wear their mask from 8am to 5pm. This helps them get used to the feeling of wearing it for long periods of time.

**IBRE** 





Equipment suit is worn by all troopers responding to a chem-bio incident.

> with its own air supply and provides maximum protection against chem-bio threats. The air tank and breathing gear weigh 11kg. This provides the wearer with 30 minutes of clean air.

Liquid detection paper on the suit used to detect presence of liquid chemicals

Lightweight decontamination suit with Swiss-made SM-90 gas mask. A water resistant suit, this protects the wearer from toxic gases and liquids.