



URBAN  
SEARCH  
& RESCUE

## NZ USAR Awareness Field Operations Guide

Version 1.2

### USAR Initial Action Strategies

- Size up scene
- Implement CIMS
- Set up communications quickly
- Send SITREP to base/dispatch
- Request specialist assistance
- R-E-P-E-A-T
- Constantly gather information
- Limit supervisory staff in logistics
- Centralise logistics
- Use an inventory control system
- Determine the length of the incident
- Plan ahead – logistics, personnel & welfare

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### Minimum PPE Check List

- Helmet
- Whistle
- Full length HD clothing/coveralls
- Head lamp
- Hand torch
- Safety goggles
- Dust mask
- Debris gloves
- First aid kit
- Knife or utility scissors
- Safety boots
- Ear plugs
- Knee pads
- Elbow pads

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### Collapse Plan (REPEAT)

**R**

Reconnaissance

**E**

Elimination of utilities

**P**

Primary surface search

**E**

Exploration of voids

**A**

Access by selected debris removal

**T**

Terminate by general debris removal

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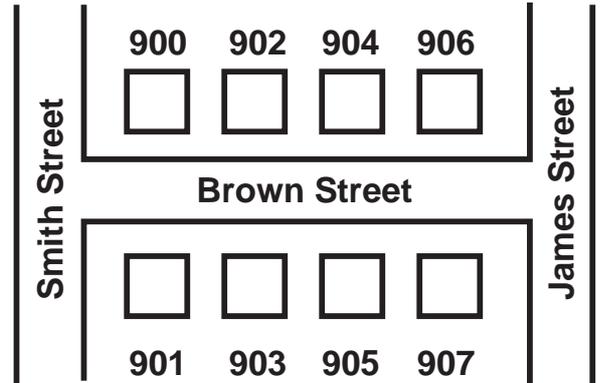
## Floor Identification

Floor 3
Floor 2
Floor 1
Ground Floor
Basement - 1
Basement - 2

**Note:** Ground Floor is recognised as the main entrance for the building.

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## Geographical ID



**NOTE:** Primary geographical ID shall be the existing street name and building number. Attempt to re-establish existing numbering system. Front of structures to be clearly marked using international orange spray paint. The boundary frontage of individual structures should be indicated using barrier tape or spray paint.

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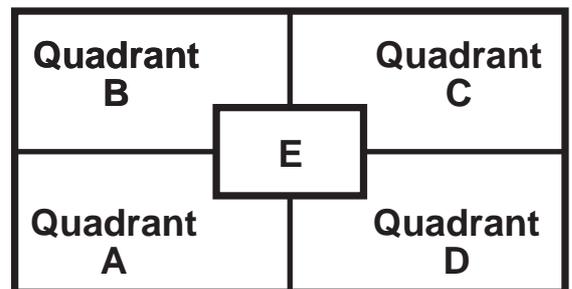
## Sectoring ID - Sides



700 Block Alpha Street

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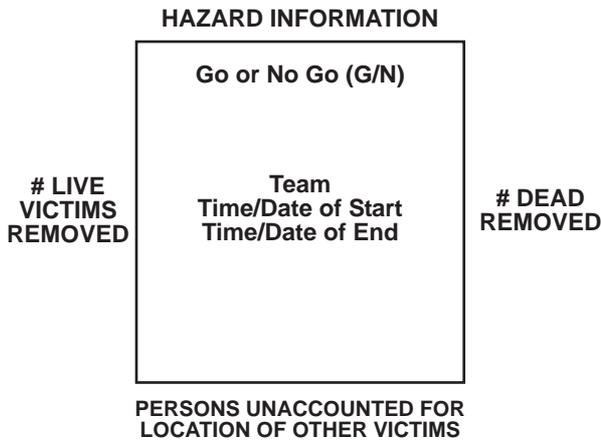
## Sectoring ID - Quadrants



700 Block Alpha Street

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## Search Assessment Marking



**NOTE:** A circle is drawn around the above box once the building/structure has been completely searched.

Use international orange spray paint.

Mark 1 metre by 1 metre – at structure entrance.

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## Victim Markings



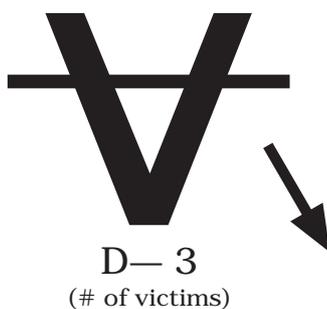
### Dead Victims Removed

Circle around crossed out V indicates a location that only had dead people in it and the bodies have now been removed.

Use international orange spray paint or timber crayon to mark.

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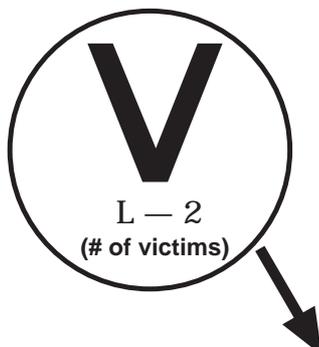
## Victim Markings



### Only Dead Below

A line through indicates only dead victims left below.

D — 3  
(# of victims)



### Victims (All) Extricated

Circle indicates all located victims extricated (including dead)

L — 2  
(# of victims)

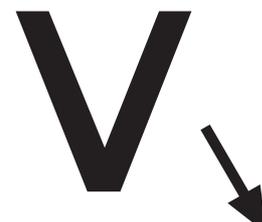
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## Victim Markings



### Potential Victim Location

Number and status unknown



### Confirmed Victim Location

Arrow denotes Confirmation.

L — 1 (# of live victims)  
D — 2 (# of dead victims)

L & D indicate Live or Dead victims.

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## Secondary Collapse Indicators (Visual Alertness)

- Fire consuming location where sprinkler tank is housed
- Uneven surface, heavy signs on section/whole of roof
- Cracks appearing on exterior walls
- Sagging or bulging walls
- Chandelier shaking or swaying
- Large fire which has been un-suppressed for more than 20 minutes involving 2 or more floors
- Walls showing smoke or water infiltrating through

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## Secondary Collapse Indicators (Hearing Alertness)

- Creaking or groaning sounds from structural elements/building
- Interior explosions, rumbling noises, hissing sounds, electrical arcing
- Strong winds
- Safety warning signals

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## Secondary Collapse Indicators (Movement in Structure)

- Movement in any floor, ceiling and roof
- Movement of ornament shop fronts
- Movement of un-supported or non-load bearing walls
- Movement of structural beams
- Columns and walls out of plumb
- Structural ceiling sagging

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## Command Briefing (SMEAC)

**S**

Situation (introduction, terrain & risk)

**M**

Mission

**E**

Execution

**A**

Administration & Logistics

**C**

Command & communications

**Q**

Questions

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## USAR Signals (INSARAG)

### Evacuate

■ ■ ■ (3 short blasts– repeated)

### Cease Operations - Quiet

■ (1 long blast)

### Resume Operations:

■ ■ (1 long blast + 1 short blast)

Note: ASTM Rope Rescue whistle signals differ from USAR signals – Ensure you brief specialist rope rescue teams that only USAR signals are to be used.

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## Colour Light Stick Codes

Colour	Use
Green	Personnel & general illumination
Red	Hazard/Danger – Keep Away
Blue	Patient Location/ID
Yellow	Rope monitoring or as decided by command.
Green/Red	Team Leader

Note: *This is not an internationally approved coding system – however it is in use by many specialist rescue teams in New Zealand*

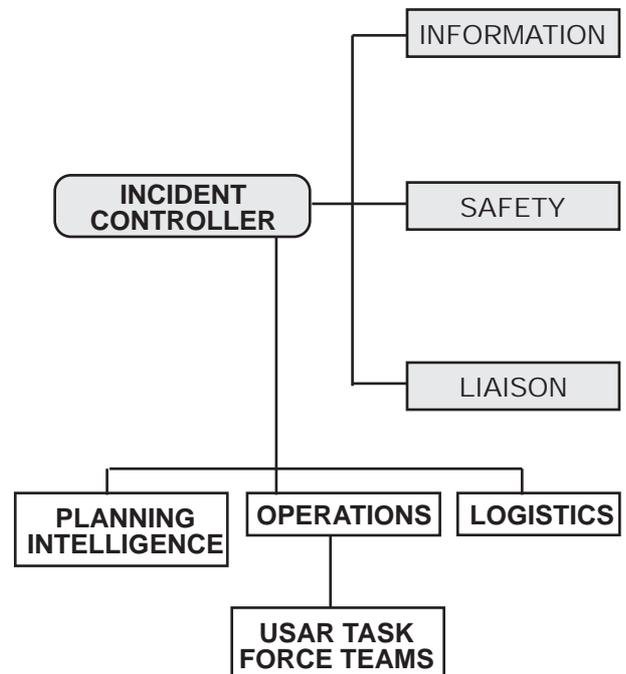
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## Initial Action Strategies

- Constantly gather information
- Set up communications quickly
- Limit supervisory staffing
- Have an inventory control ready
- Centralise logistics
- Determine the estimated length of the incident

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## Incident Management Diagram



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## Occupancy Interviews

### Primary:

- who lives in which room
- colours of ceiling or floor tiles
- floor coverings and furniture types
- potential for occupancy and hazards (chemicals, electricity and animals)

### Other

- time of collapse (and secondary collapse)
- has the building been searched before?
- availability of building plans (floor
- evacuation map)
- location of utility main switches etc
- what have you heard or seen

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## Information Management

### Primary:

- team leader to conduct interview
- record all information in your notebook with date/time and name and address of interviewee as it could be used as legal evidence
- report relevant information back to Emergency Operations Centre or dispatch as per agency protocol
- brief your team on intelligence gathered

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## Acknowledgements

This Field Guide is for Certified USAR Responders and Technicians only.

Thank you to the New South Wales & Australian Capital Territory Fire Services who made available the graphics and text used in this field guide.

Such graphics came from the NSW/ACT US&R CAT-1 Certificate Course CD-ROM.