



NSW STATE ROAD CRASH RESCUE CHALLENGE

STRONGER TOGETHER



INDUSTRIAL & DOMESTIC RESCUE CHALLENGE RULES

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1. Definitions

The term “Organisers” hereafter will refer to the NSW Road Crash Rescue Challenge Organising Group as the official organisers of the State Road Crash Rescue Challenge.

The term “Host” hereafter will refer to Fire and Rescue NSW and the NSW State Emergency Service.

2. Team membership

Each team will consist of 3 members.

Teams of six will break in two teams of three with each team completing one Industrial and Domestic rescue drawn at random from a scenario list. Each scenario team will consist of three (3) members, one of whom must be designated as medic/first aider. It is highly desirable that teams represent as a minimum the gender balance of their agencies.

At the discretion of the Chief Assessor, a team may substitute a team member in the case of illness or injury, except during a scenario. If, during a scenario, a team member is injured and has to withdraw, the team, if able, may continue until they finish, or ‘Time’ is called.

Team members may only participate if they can demonstrate competency in either:

- Road rescue by holding, as a minimum, the Australian Public Safety Training Package (APSTP) Unit of Competency PUASAR024A ‘Undertake Road Crash Rescue’, or equivalent.
- Industrial and Domestic rescue by holding, as a minimum, the Australian Public Safety Training Package (APSTP) Unit of Competency PUASAR026A ‘Undertake Industrial and Domestic Rescue’
- Pre-hospital emergency care by holding, as a minimum, the APSTP Unit of Competency PUAEME002C ‘Manage injuries at emergency incident’, or equivalent.

Teams from units Accredited under their relevant legislation as Road Crash Rescue only will have the option of completing the Industrial and Domestic challenge as either a competitive stage or learning stage where the Assessor Panel will instead use the drawn scenario as a learning pit.

In addition, in the case of the medical competency, it is desirable that team medics will be competent in the administration of oxygen to PUAEME003C ‘Administer oxygen in an emergency situation’, or equivalent.

The Medic will be assessed at First Aid level.

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3. Accident Injury or Illness

If, during the challenge, an accident, injury or illness or injury occurs to a team member, casualty, spectator, or any person, which affects the running of the scenario, the injury will be advised to the Organisers as an authentic occurrence (i.e. 'No duff').

The Chief Assessor, Assessor or Safety Officer will immediately instigate competent medical attention to the situation via the local provider or crew on standby at the site. The delay or ceasing of that scenario will be at the discretion of the Assessor Panel Leader in that pit. The Challenge Coordinator is to be advised immediately.

4. Pit access

The pit area will be off limits to all persons unless authorised by the Organisers. Authorised persons will be admitted entry only by accreditation pass or other approved means.

5. Insurance

Adequate Workers Compensation and or Injury Insurance for the participating teams will be the responsibility of that team's Service, Agency or "Employing Organisation".

6. Registration

Team application and registration for this challenge can only proceed on the official entry form supplied, accompanied by the prescribed fee which will be determined by the Organisers from year to year. As part of the process of registration teams must confirm that all members of the team comply with the requirements of rules 2 and 18 of this Challenge.

All extrication challenge team entries will be guaranteed one entry into the Trauma Challenge. Should more teams register for the challenge than there are places in the program, preference will be given to applications on the following criteria:

- A FRNSW team that has previously participated in a Firefighter Championships Association event.
- A NSW SES team in order of receipt of application.
- A team from another NSW rescue agency or a team from outside NSW to fill vacant positions, up to a maximum of 16 teams.

Registration of arrival will take place prior to the challenge. (See timetable for further information).

Teams that are unable to participate in the challenge must notify the Organisers in writing of their decision to withdraw, or they will be deemed to be a 'No show' and be disqualified. Teams that withdraw less than 45 days before the first official day of the challenge will forfeit their entry fee.

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7. Assessors

Challenge Assessor panels in the Industrial and Domestic Rescue stand will comprise of 2 assessors one technical and one medical assessor. All Assessors must be registered rescue operators or paramedics with their relevant agencies.

Assessor Panels will be formed for each challenge class with Assessor Panel Leaders being selected at that time. Each Assessor panel will assess all teams attempting one class only so that each team demonstrates their skill before each Assessor panel.

8. Assessment sheets

The assessment sheets will remain with the Scoring Coordinator and will not be available for viewing or scrutiny by any unauthorised persons. Assessors will complete the assessment sheet during the scenario and confirm their scores in ink prior to the team debrief. No further amendments to the assessment sheets will then be made. Score sheet summaries for each team will be made available to that team after the conclusion of the challenge. Each Assessor will have a different mix of parameters to assess based on their expertise.

9. Appeals

Any team that has a grievance or dispute must report it to the Chief Assessor within one hour of completing the scenario concerned on the day. All appeals in respect of a technical performance and associated scoring will be heard by the Chief Assessor who will, where required, investigate, or discuss the issue with any involved assessors. The Chief Assessors decision is final. All allegations of unfair assessment will be investigated by the Chief Assessor who will present their findings to the assessor panel for their deliberation.

10. Scenarios

There will be a bank of scenarios controlled by the Steering Committee. The exact scenario delivered to each team in each class will remain confidential. Scenario duration will be 20 minutes.

The Operations Officer will determine the sequence in which the teams participate prior to the challenge. Competing teams will draw commonly used Industrial & Domestic Rescue tools from an equipment cache.

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11. Scenario Aims and Objectives

The NSW State Road Rescue Challenge – Industrial & Domestic Rescue is designed to meet the following outcomes:

- Replicate Industrial & Domestic Rescue scenarios that General Land Rescue and RCR crews may be called to attend.
- Create an environment where:
 - Teams have the opportunity to demonstrate a range of techniques and options to extricate casualties.
 - Team performance can be analysed over a series of extrication scenarios.
 - Learning and education in all facets of extrication is promoted.
 - Participants will leave being able to perform more competently at Industrial & Domestic Rescue scenes, exercising current techniques in vehicle extrication and casualty treatment.
 - Participants have an enjoyable experience.

As part of the process of demonstrating their skill, teams must implement at least one recognised technique in each class. Recognised will be defined as a technique contained within the competing agencies most current training material. Teams will be objectively assessed on the outcome of the application of their technique (e.g. final space made) as well as the efficiency and safety of its execution.

Teams that do not implement recognised techniques will most likely receive an assessment in the basic range from the technical assessors.

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12. Definition of phases of Industrial and Domestic Rescue and effect on assessment

Extrication can be divided into three broad phases:

- Casualty access and space making
- Extrication options for release using Manipulate, Dismantle, Displace, Cut (MDDC)
- Casualty packaging and handover

Sufficient space will need to be created for medical intervention and casualty release/packaging reflective to their mechanism of injury. Teams are expected to recognise the medical needs of the casualty(s). The casualty(s) will have one or more injuries or illnesses.

To achieve success teams will need to demonstrate a balance between efficiency, safety and urgency to find and treat the casualty(s)'s life threatening injuries as soon as it is safe to do so and complete extrication of the casualty(s) within the available time frame.

To achieve these outcomes in each class teams should demonstrate techniques consistent with the overall technique based philosophy.

13. Overall Technique Based Philosophy

Manipulate	Ring String Technique Ask casualty to show you how they got stuck Posturing Use of ice or lubricants
Disassemble	Appreciation of how object assembled Correct selection of tools Tools appropriate to task and designed use Clear objective set, not stripping machine Through appreciation of stored energy and bleed
down/blocking Displace	Material to be displaced identified Appropriate tools selected Mode of failure identified (brittle failure etc)
Cut	Cutting tool appropriate to material identified Risks identified and managed (fire, thermal transfer, sparks) Appropriate protection provided Cooling Material mass and reactive forces

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14. Prop positioning and relocation

Props may be positioned in pits to represent a simulated industrial or domestic environment. Every effort will be made by the organisers and hosts to ensure the realism of these props. This means that if the object is intended to be fixed and immovable, it will be placed in the scenario in such a way as to make it immovable. If the Scenario Manager is unable to create an equitable scenario a simulated immovable object may be used. Clarification about the mobility of any prop can be sought from the Command Assessor at any stage during a scenario.

15. Tools and Equipment

The Exercise Steering Committee will arrange to provide a range of makes and models of rescue tools which will ensure as much as possible of the equipment listed in the Organiser's recommended pit equipment list (See Appendix 1) is provided at the pit.

Teams may bring tools and / or equipment for use in any of the pits. All of these items, including personal equipment belts and their contents, must be scrutinised by Assessors at a time and place determined by the Organisers, prior to the commencement of the Challenge. Items that are supplied in the tool dump, which perform a similar function to equipment that teams introduce will be removed. This is to ensure that teams bringing additional equipment do not gain a quantity advantage.

Engineering certification must be produced for any tool or piece of equipment brought by a team that is likely to bear load or be put under mechanical stress. The Assessors' decision on tool and equipment suitability will be final.

Teams may not use radios to communicate between their members.

The following items of equipment are prohibited:

- Knives that have disposable blades designed to snap off at predetermined points;
- Knives that have a retractable or folding blade without a locking mechanism when the blade is in the exposed position;
- Knives for which the blade is not sheathed or placed in a pouch when not in use;
- Hack saw blades that are not bi-metal construction (i.e. shatter proof); and Teams may choose whether to leave their equipment in the tool dump for all teams to use or place the items out for their own scenario only.

N.B. All team members should make themselves familiar with any tool that they may use at the Challenge.

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16. Team presentation at Challenge

Teams will present themselves to the Isolation Manager or at a location nominated by the Operations Officer and specified during the Team briefing. This must be prior to the time indicated on the timetable for their equipment inspection. Teams may be directed to start earlier or later than indicated in the timetable to ensure the efficient and effective running of the event, at the discretion of the Chief Assessor.

Once the team presents, they are to remain there until they are escorted to the tool staging to commence their equipment inspection. The team will have a set time as detailed on the timetable to stage all their tools and equipment. When the team has either completed equipment preparations or the time has expired, they will be taken to an isolation area out of sight of the pit to allow for the staging of their scenario.

After the team leaves the pit equipment area no member of the team or their supporters shall be allowed to make any further adjustments to the pit equipment or supplement the cache with any additional items. Any items the team identifies as being missing or unserviceable are to be brought to the attention of the Pit Manager before the team leaves the pit area. The Pit Manager will be responsible for resolving the issue and communicating the outcome to the team before they are in isolation.

The team will be escorted back to the challenge pit once their scenario has been staged. While in isolation, the use of all electronic devices is prohibited by team members.

17. Breakdown of scenario

At the conclusion of their scenario, each team must remove and tools, stabilisation, medical equipment, and patient protection. This may be varied at the discretion of the Chief Assessor subject to the number of personnel in the pit crew available to break the scenario down.

18. Assessment of performance

A panel of qualified Assessors will assess each team's performance. The parameters assessed are detailed in the Assessor's Guidelines and on the Challenge Assessment Sheets. Teams should note that Assessors are briefed to assess a team's performance on what they see and hear, not what they expect to see and hear. With this in mind teams are urged not to 'play up' to the Assessors by giving a running commentary of what they might do under certain conditions, but to actually do what they would normally do if they encountered the same scenario on the road.

To facilitate assessment, teams will be expected to comply with requirements of the Chief Assessor. This may include the use of technology as supplied by the Chief Assessor.

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19. Debriefing

Following each scenario in each class the Assessor panel managing that class will conduct a short debrief with each participating team. The debrief is designed to provide a learning opportunity for the team. To that end teams are encouraged to have their manager, or any other support person take notes or video the discussion.

Subject to approval by both the team leader and the Assessor panel leader, observers are welcome in any debrief. Assessors will not provide a solution or offer opinion of how they would achieve an outcome. This recognises that each incident is unique. Teams will only be offered feedback on their chosen strategies.

20. Personal Protective Equipment

All competing team members will at all times during the challenge wear currently issued clothing and personal protective equipment as approved by their agency. As a minimum, suitable turn out gear, coveralls, safety boots, eye protection (in the form of rated safety glasses), and where appropriate ear and/or respiratory protection is required.

Teams representing agencies that require their personnel to wear and use helmets with visors (for facial protection) will be expected to wear and use them during the challenge. In keeping with occupational health and safety work practices, teams are required to supply and use their own latex gloves, dust masks and other consumable personal protective equipment supplies.

N.B. Teams may only wear protective clothing that has been authorised by their Service or Agency. This personal protective equipment must meet with an approved standard, e.g. Australian Standards Association (ASA), New Zealand Standards Association, National Fire Protection Authority (NFPA), Occupational Health & Safety Authority (OHSA) or similar international organisations. If the protective clothing to be worn in the challenge is not the same as normally worn for operational turn outs by a team, then a letter confirming it is authorised for use is required from the head of the Agency or Service at the pre challenge team briefing.

21. Challenge safety

Where the command “STOP” is given, ALL members of the team will immediately stop their actions. This command indicates that a safety problem exists. Time will be stopped until the safety issue is rectified. Once addressed the Command Assessor will give the permission for the team to continue and the clock will recommence.

If there are any further safety stoppages during the same evolution, the time will not stop, and the team will have to rectify the situation while the clock continues to run. The above safety calls can be made by any of the Assessors or Safety Officers. If the problem can't be rectified the Chief Assessor may disqualify the team or cancel the evolution.

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22. Timing

Assessors in each pit will be responsible for accurate timing of the scenario. The Technical Assessor will call “time” when time has elapsed by calling ‘Time’. Alternatively, the team may call “time” before the available time has elapsed, when the casualty has been extricated and the team has completed the scenario. Completion is defined as all casualties released and handed over to the satisfaction of the Medical Assessor.

23. Casualties

Live people and manikins will be used in this Challenge. Teams will be expected to assess the casualties for injury and provide treatment consistent with the injuries they find and their skills. Specific consideration should be given to maintaining the dignity of the casualties in this public training environment.

24. Non-attendance of team

In the event of a ‘No Show’ by any registered team at their appointed time for equipment inspection, the Chief Assessor may disqualify them from that class.

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Appendix 1: Recommended Pit Equipment List

ITEM	QTY
Finger Kit	
Venetian Blind	1
Tape Measure	1
X-ray film	1
Feeler Gauges	1
Brick Line	1
Ring Cutter	1
Jewellers Screw Drivers	1
6mm Glass Drill Bit	1
18 TPI Hacksaw Blades	5
24 TPI Hacksaw Blades	5
32 TPI Hacksaw Blades	5
Junior Hacksaw and Blades	1
Vice	1
Flexible pick-up tool	1
Jewellers' snips straight	1
Jewellers' snips curved	1
Circlip pliers	1
Carbide rod saw	1
Vaseline or body safe lubricant	1
Glass Cutter	1
Padsaw handle	1
Stanley Knife	1
Side Cutters	1
Trauma Shears	1
Electrical Tape	1
PTFE Tape	1
Double Acting end cutters	1
Long Nose pliers	1
Splinter Probe	1
Extendible Mirror	1
Tweezers Blunt and Pointed	1
Small First Aid scissors	1
Casualty Protection Equipment	
Edge protection soft – protective cover 260 x 300mm (approx dimensions)	4
Edge protection soft – protective blanket 600 x 600mm (approx dimensions)	4
Edge protection soft – protective blanket 1500 x 600mm (approx dimensions)	2
Edge protection rigid – Pipe 150mm diameter x 400mm	2
Edge protection rigid – Pipe 100mm diameter x 400mm	4

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Glass catcher 1	1
Stabilisation Equipment	
Blocks, timber, step	4
Cribbing – Timber	
Blocks, timber approx. 100 x 50 x 500mm	20
Blocks, timber approx. 100 x 100 x 500mm	20
Wedges, timber 100 x 100 x 500mm	12
Wedges, timber 100 x 50 x 500mm	12
Wedges, step/blocks 500mm x 200mm	4
Wedges, timber assorted sizes (e.g. wheel chocks and shims)	12
Cribbing – Timber Alternate	
Timber blocks 100x100x500 taped handle	12
Timber blocks 100x50x 300 taped handles	6
Timber wedge 100x100x 450 taped handles	6
Timber wedge 100x50x250 taped handle	6
Casualty Treatment Equipment	
Space/emergency blankets, patient care only (not wool or cotton)	1
Extrication device (e.g. KED or similar)	1
Oxygen therapy equipment 1	1
Patient protection, various sizes, hard, set	1
Patient protection, various sizes, flexible, set	1
Patient protection, various sizes, soft, set	1
Stretcher, scoop style 1	1

In addition to the above a stock of consumables needs to be available to replenish supplies of:

- Bi-metal hacksaw blades – 2 per team
- Reciprocating saw blades – 2 per team
- Air cylinders
- Medical oxygen cylinders (one per team) & therapy masks (two per team) plus spares
- Spill absorbent material (kitty litter)
- First aid supplies to include:
 - 2 oxygen mask per team (e.g. 24 teams = 48 masks + 6 spares)
 - Bandages and dressings per scenario
 - One cervical collar per team (adjustable size or sets)
 - Disposable cardboard splints – 1 small & 1 medium per team
 - Duct tape

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Appendix 2 – Recommended Pit Medical Equipment List:

ITEM	QTY
FRNSW EMT Kit	1
NSW SES First Aid Roll	1

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