

QFRS Operational Guides		
Guide 1	Level 1 Incident Tactical Command	
Guide 2	Management of Level 2 & 3 Incidents	
Guide 3	Control and Coordination Centres	
Guide 4	Air Attack Guidelines	
Guide 5	Breathing Apparatus Safety Teams	
Guide 6	Pre-Incident Planning	
Guide 7	Incident Debriefing	
Guide 8	Exercise Management	
Guide 9	Greater Alarm Response System (v1.0)	✓
<p>Operational Guides have been developed to provide staff with further information and clarification on operational systems and processes.</p> <p>They are designed to “bridge” the information gap between training documentation and the QFRS Operations Doctrine.</p> <p>Further Operational Guides will be developed as they are required.</p> <p>For further information contact the State Operations Directorate (Ph: 3247 8868).</p>		

Key Points
<ul style="list-style-type: none"> • Provides increased operational performance delivery. • Enhanced operational focus for the Incident Controller. • Provides two response systems for the entire state. • The core firefighting component for each alarm level (that is the number of pumpers or rural fire brigades) usually corresponds to double the alarm level number. • The Incident Controller may request the attendance of one additional pumper at an incident without activating the next level of alarm response. • One of the most important issues for an Incident Controller to consider when using GARS is the designation of staging areas.

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QUEENSLAND FIRE AND RESCUE SERVICE Relevancy Matrix						
	Urban Fire		Rural Fire			
	Full-time	Part-time	Class 4 Brigade	Class 3 Brigade	Class 2 Brigade	Class 1 Brigade
Applicable	✓	✓	✓	✓	✓	✓
Not Applicable						
May Apply*						
* This document may apply to some Rural brigades. Check with your Senior Officer for additional information.						

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FOREWORD

Progressive fire services across the world continue to review their operating standards and procedures with a view of improving operational response to the community.

The introduction of the QFRS Operations Doctrine has provided a solid foundation of operational procedures for QFRS personnel that attend an ever growing and diverse range of incidents.

Effective response to emergency incidents must include:

- a rapid dispatch of resources;
- an appropriate weight of attack for the type of emergency;
- notification of relevant offices and authorities;
- appropriate capabilities and equipment to safely resolve the emergency; and
- an appropriate level of incident management relevant to the type and size of the emergency and the resources committed.

One fundamental basis to effective response is to ensure that the organisation has appropriate mobilisation protocols that provide sufficient resources, both in terms of physical resources and a management structure that is appropriate with the scale, intensity and duration of the incident.

QFRS is now adopting a system of response resource mobilisation known as the Greater Alarm Response System or GARS.

GARS is a proven system of response that has worked for many years for fire services overseas and also interstate. GARS will bring a structured and coordinated mobilisation of resources that is designed to match an escalating incident with front line firefighting resources, specialist support and appropriate levels of incident management.

In recognition of the diversity of the state of Queensland, the QFRS GARS approach introduces two models to accommodate and be flexible to the needs of south east Queensland and regional Queensland.

It is extremely important that all QFRS personnel are familiar with the various alarm levels and the relevant protocols contained in this guide. GARS will enhance QFRS operational response and ensure that an appropriate level of physical and human resources are responded to an emergency incident. In doing so, there will be overall improvement in the safety for operational personnel, the effectiveness of operational response and in the delivery of service to the communities of Queensland.



Iain S MacKenzie AFSM
Deputy Commissioner

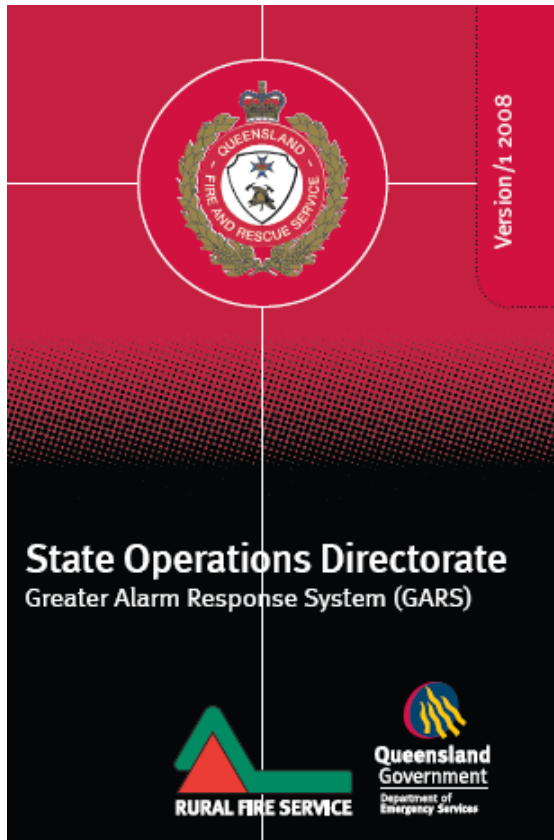
PURPOSE

This guide will provide assistance to QFRS personnel in understanding the introduction of the Greater Alarm Response System (GARS) across the state.

The guide will highlight how GARS works and its relationship with the QFRS Incident Management Levels and the Wildfire Alert System. The two QFRS GARS models (South East Queensland model and Regional Queensland model) will be explained as a local application of available resources.

The detail for the use of GARS is discussed including requesting specialist resources, calling additional resources enroute, calling-off despatched resources, the relationship with Fire Communications Centres and considerations for staging resources.

By using GARS, the Incident Controller (or QFRS Commander) will employ a sufficient weight of initial attack and any ongoing operations by resourcing appropriately at incidents. Furthermore, effective resourcing will maintain a suitable span of control that will ensure that as an incident increases in size (and the subsequent increase in numbers of front line firefighting resources); there must be a matching response of specialist support appliances and personnel as well as an appropriate incident management structure. This will increase the overall safety of all personnel and members of the community during the course of the response.



QFRS GARS Pocket Guide

The pocket guide has been developed to provide a quick reference for the different alarm levels for the South East Queensland and Regional models.

GREATER ALARM RESPONSE LEVELS

A significant part of GARS is the alarm response levels. The level of response is termed the Alarm Response Level and is designed to match the size of the incident. An alarm response level is broken into a number of components:

- Core firefighting component - i.e. the number of Pumpers or Rural Fire Brigades
- Specialist combat resources - i.e. Aerial and Rescues
- Specialist support resources - i.e. Hazmat units and Incident Control Vehicles
- Incident Management and Command Structure

As the size or complexity of the incident escalates there is a corresponding increase in the alarm level. This ensures that the infrastructure that is required to resolve an incident of a particular magnitude is responded as a predetermined response and not on an *ad hoc* basis.

Benefits of using GARS

The introduction and effective use of GARS will enhance the operational performance of QFRS and provides a number of benefits to the organisation's response including:

- The structured system can facilitate resources from one region to be sent to a neighbouring region for a large protracted incident. For example, a large incident in the South East Region that is designated at a certain alarm level may initiate early activation of specialist resources from Brisbane Region.
- GARS will cater for inter-regional needs using a model that uses state-wide resources, rather than a regional-centric perspective.
- The provision of an automatic response of an appropriately sized Incident Management Team (IMT) to support the Incident Controller.
- Supporting the concept of an appropriate sized "weight of attack" with specialised support vehicles and IMT.
- Readily adaptable into the Statewide Notification Incident Protocols as outlined in Standing Order (SO-Q-OM-4.3).
- Allowing the Incident Controller to simplify the requesting of all the appropriate support mechanisms and resources.
- Reduction in radio traffic and improved message reports from the incident ground. Currently radio traffic is now taken up with requests for ancillary services rather than a detailed description of the incident.

- Supporting the incorporation of specialised day work staff into the IMT structures, e.g., the system will support the response of day work staff from community safety that bring expertise to the incident in the form of specialised knowledge of fire systems and building safety systems.
- Potential to act as a trigger to initiate the Regional Fire Coordination Centre (RFCC) and the State Operations Coordination Centre (SOCC) and to consider re-scheduling all regional training and placing Community Safety and Regional Training staff on standby (but to continue functional roles). Currently there is no predetermined level that triggers the opening of such coordination centres.

GARS and Incident Management Levels

From the initial response of local resources, escalation of the incident may require a scaling up of the Incident Management System. This may be the result of the intensifying complexity, increased application of resources and a predicted protracted incident - or a combination of all factors.

At all stages of the escalation of the management structure, communications and control measures must maintain their effectiveness and have a seamless operational continuity for all personnel.

The QFRS Operations Doctrine, Incident Management System details the levels of incident management, their definitions and the manner in which they escalate.

However, there is no direct correlation between alarm levels and incident management levels. A first alarm level maybe used for a number of level one incidents, this does not mean a third alarm is an appropriate response for a level three incident.

GARS and Wildfire Alert Levels

Wildfire Alert Levels are based on the Fire Danger Ratings (FDR) aligned to the Macarthur Forest Fire Danger Meter Mark 5 and Grassland Meter MK 4. The range from *Low* to *Extreme* FDR's is the primary basis for developing and determining a Wildfire Alert Level which is a pre-emptive response to wildfire management in the Region.

As with incident levels, the Wildfire Alert Levels are not directly connected to GARS. With the example of Wildfire Alert Level One is normal business within a Region and is not relevant to a First Alarm (nor relevant to a Level One Incident).

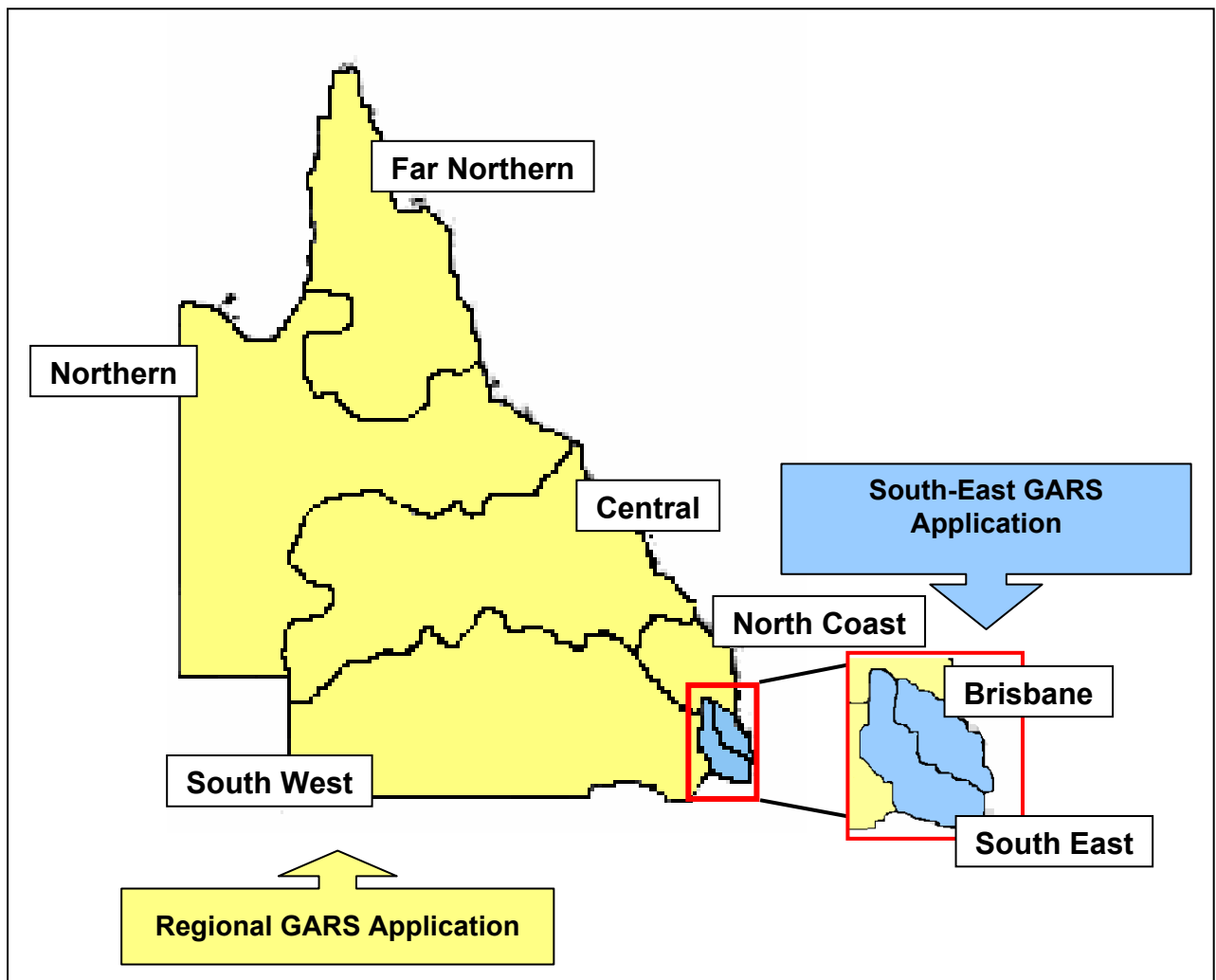
GARS MODELS FOR QFRS

The basis of the GARS model is for the Incident Controller to request a certain alarm level that will respond a predetermined mix of core firefighting resources, specialist support resources and command officers.

Because the system is dependant upon the available resources in the region, the decision was made to develop two models to reflect the increased number of resources (both human and operational) available in the south east corner of the state.

The South East Corner model will be applied to the Brisbane and South East Region, whilst the Regional Model will apply to the remainder of the State.

Whilst the number of core firefighting resources will be the same for each alarm level, the South East Corner model will have a slightly greater amount of support resources and command officers for some alarm levels.



GARS Tables

South East Queensland Model

QFRS South East Queensland Model (Brisbane Region and South-East Region)						
Incident Type	1 st Alarm	2 nd Alarm	3 rd Alarm	4 th Alarm	5 th Alarm	6 th Alarm or Higher
Structure Fire	First Alarm Response is as per Regional Mobilisation Protocols	4 x Pumpers 1 x Control Vehicle 1 x Command Officer	6 x Pumpers 1 x Control Vehicle 1 x Aerial 1 x BA Hazmat 1 x Scientific Officer 2 x Command Officers	8 x Pumpers 1 x Control Vehicle 1 x Rescue 1 x Aerial 1 x BA Hazmat 1 x Scientific Officer 3 x Command Officers	10 x Pumpers 1 x Control Vehicle 1 x Rescue 2 x Aerial 1 x BA Hazmat 1 x Scientific Officer 4 x Command Officers	2 x Additional Pumpers per alarm
Non-Structure Fire (e.g. wildfire, vehicle)	4 x Pumpers or 4 x RFB 1 x Control Vehicle 1 x Command Officer	6 x Pumpers or 6 x RFB 1 x Control Vehicle 2 x Command Officers	8 x Pumpers or 8 x RFB 1 x Control Vehicle (or ICC) 3 x Command Officers RFCC - Watching Brief State Air Desk Notified	10 x Pumpers or 10 x RFB 1 x Control Vehicle (or ICC) 4 x Command Officers RFCC - Watching Brief SOCC - Watching Brief State Air Desk Notified	2 x Additional Pumpers or Brigades per alarm	
Rescue	3 x Pumpers + 1 x Rescue 1 x Control Vehicle 1 x Command Officer	4 x Pumpers + 2 x Rescue 1 x Control Vehicle 2 x Command Officers	6 x Pumpers + 2 x Rescue 1 x Control Vehicle 3 x Command Officers RFCC - Watching Brief	8 x Pumpers + 2 x Rescue 1 x Control Vehicle (or ICC) 4 x Command Officers RFCC - Watching Brief SOCC - Watching Brief	2 x Additional Pumpers per alarm	
Hazmat	3 x Pumpers + 1 x BA Hazmat 1 x Control Vehicle 1 x Scientific Officer 1 x Command Officer	5 x Pumpers + 1 x BA Hazmat 1 x Control Vehicle 1 x Scientific Officer 1 x Decon Unit 2 x Command Officers	6 x Pumpers + 2 x BA Hazmat 1 x Control Vehicle 1 x Decon Unit 1 x Scientific Officer 3 x Command Officers	8 x Pumpers + 2 x BA Hazmat 1 x Control Vehicle (or ICC) 1 x Decon Unit 2 x Scientific Officers 4 x Command Officers	2 x Additional Pumpers per alarm	

Regional Queensland Model

QFRS Regional Queensland Model						
(South-West Region, Central Region, North Coast Region, Northern Region and Far Northern Region)						
Incident Type	1 st Alarm	2 nd Alarm	3 rd Alarm	4 th Alarm	5 th Alarm	6 th Alarm or Higher
Structure Fire	First Alarm Response is as per Regional Mobilisation Protocols	4 x Pumps 1 x Command Officer	6 x Pumps 1 x Control Vehicle 1 x Scientific Officer 1 x Command Officer	8 x Pumps 1 x Control Vehicle 1 x Aerial 1 x BA Hazmat 1 x Scientific Officer 2 x Command Officers	10 x Pumps 1 x Control Vehicle 1 x Aerial 1 x BA Hazmat 1 x Scientific Officer 3 x Command Officers	2 x Additional Pumps per alarm
Non-Structure Fire (e.g. wildfire, vehicle)		4 x Pumps or 4 x RFB 1 x Command Officer	6 x Pumps or 6 x RFB 1 x Control Vehicle 1 x Command Officer	8 x Pumps 8 RFB 1 x Control Vehicle (or ICC) 2 x Command Officers RFCC - Watching Brief State Air Desk - Notified	10 x Pumps or 10 x RFB 1 x Control Vehicle (or ICC) 3 x Command Officers RFCC - Watching Brief SOCC - Watching Brief State Air Desk - Notified	2 x Additional Pumps or Brigades per alarm
Rescue		3 x Pumps + 1 x Rescue 1 x Command Officer	5 x Pumps + 1 x Rescue 1 x Command Officer	7 x Pumps + 1 x Rescue 1 x Control Vehicle 2 x Command Officers RFCC - Watching Brief SOCC - Watching Brief	8 x Pumps + 2 x Rescue 1 x Control Vehicle (or ICC) 3 x Command Officers RFCC - Watching Brief SOCC - Watching Brief	2 x Additional Pumps per alarm
Hazmat		3 x Pumps + 1 x BA Hazmat 1 x Scientific Officer 1 x Command Officer	5 x Pumps + 1 x BA Hazmat 1 x Control Vehicle 1 x Scientific Officer 1 x Command Officer	7 x Pumps + 1 x BA Hazmat 1 x Control Vehicle 1 x Scientific Officer 2 x Command Officers	9 x Pumps + 1 x BA Hazmat 1 x Control Vehicle (or ICC) 2 x Scientific Officer 3 x Command Officers RFCC - Watching Brief SOCC - Watching Brief	2 x Additional Pumps per alarm







GARS Tables Explanatory Notes





The following notes have been prepared to assist in explaining the information contained within the tables and the application of the alarm levels:

1. The First Alarm for any incident will be based on the regional mobilisation protocols.
2. The number of command staff has been calculated as a guide to the number required to safely and effectively manage an incident.
3. For wildfire / bushfire incidents, temporary changes to a First Alarm response will change depending on the current regional "Wildfire Alert Level" and reflect the Regional Wildfire Plan.
4. Where possible, the command personnel should be in addition to the first responding crews.
5. Command officers generally relate to "Senior Officers" where possible. Where this is not possible, the number of designated command officers may be made up by appropriately trained staff.
6. "Rescue" is a generic term for an emergency tender, command rescue (CR) or specialist rescue resource.
7. "BA/Hazmat Vehicle" refers to the Regional BA Hazmat resource. The capability of this resource may differ from region to region.
8. The initial "appliance" response to non-structure fire incidents can be either urban pumpers, Rural Fire Brigades (RFB) or a combination of both. RFB's are used as opposed to appliances as there are various numbers of resources available for different brigades.
9. Depending on the regional resources available, a "Control Vehicle" should be a specialist vehicle with some associated communication equipment for the management of the incident. In some circumstances, the command vehicle may be a Senior Officer's Emergency Response Vehicle (ERV) with suitable equipment.
10. GARS is a mobilisation process for the initial and subsequent request for resources in relatively short time frame and is not applicable during campaign and long duration incidents.

It is acknowledged that in some rural and remote areas there will be a gradual uptake of the system and that full implementation across all areas of the state may take some time.

Model Resourcing Comparison for Structure Fire Response

Structure Fire	Regional Queensland Model	South East Queensland Model
1 st Alarm	First Alarm Response is as per Regional Mobilisation Protocols.	
2 nd Alarm		
3 rd Alarm		
4 th Alarm		

Structure Fire	Regional Queensland Model	South East Queensland Model
<p>5th Alarm</p>		
<p>6th Alarm or Higher</p> <p>Two additional pumpers per successive alarm</p>		

USING GARS

The core firefighting component for each alarm level (that is the number of pumpers or rural fire brigades) usually corresponds to double the alarm level number.



EXAMPLE: A non-structure fire second alarm responds four pumpers or four rural fire brigades or a combination of both; similarly a structure fire fourth alarm responds eight pumpers and so on.

If for any reason the Incident Controller is unsure of the exact details of the response breakdown, they should request the alarm level on the basis of the number of core firefighting components required to combat the incident. This way, the Incident Controller can be confident that an appropriate number of specialist support vehicles as well as an appropriate sized incident management structure will also be responded.

In addition to the details of the alarm levels, it is important to be aware of these governing protocols that will apply to the new system of responding resources to an incident.

Special Calling Resources

If necessary the Incident Controller may request resources that are not part of the standard alarm - this is known as Special Calling.

Special Calling - One Additional Pumper

The Incident Controller may request the attendance of one additional pumper at an incident without activating the next level of alarm response.



EXAMPLE: The Incident Controller at a third alarm factory fire, where there are sufficient firefighting resources in attendance to control the situation, may simply require the attendance of an additional pumper to assist relay pumping. The Incident Controller can simply Special Call the additional pumper, rather than activating the next complete level of response and transmit a fourth alarm.

It should be noted that Special Calling a single pumper should only occur once during an incident. This is to avoid resource levels climbing incrementally without a corresponding increase in incident management and support resources.

Special Calling - Specialist Resources

In some situations the standard alarm may not provide all of the Specialist Resources required. In such cases the required Specialist Resources should be included as part of the assistance message.

Calling Off Unnecessary Appliances

Alarm levels are based on generic incident types of structure fire, non-structure fire, rescue and hazmat.

There may be some circumstances whereby the Incident Controller may not require the exact type and number of support appliances detailed for the particular alarm level requested. When this occurs, the Incident Controller may transmit as part of the assistance message that a specific resource in the alarm response is not required.

Calling For Assistance En-Route

As per normal QFRS procedures, Officers can still call for assistance en-route should conditions indicate the response needs to be upgraded.



EXAMPLE: An Officer observing large volumes of smoke visible en-route to a factory fire might transmit a message for a higher alarm to be responded than has already been assigned by Firecom.

A request for the response of additional alarms does not have to follow in numerical sequence.



EXAMPLE: The Incident Controller may decide to escalate the response level from the initial first alarm response straight to a fifth alarm or a second alarm direct to a fourth alarm.

Alarm levels may be escalated to what ever level the Incident Controller believes is appropriate to adequately bring the situation under control regardless of the incidents current alarm level.

Firecom Escalating Alarm Levels

Personnel from the **Fire Communications Centre** may **escalate the level of alarm response** before an assistance message is received if information suggests the incident will not be handled with the first alarm.

This may occur when the Fire Communication Centre receives a large number of triple '000' calls from the community concerning an incident. The information from these calls must be consistent and indicate to the communication personnel that the incident requires an escalation of the alarm level.

Staging Areas

One of the most important issues for an Incident Controller to consider when using GARS is the designation of staging areas.

Incident Controllers should be aware that some of the additional appliances that arrive on scene in response to higher alarms levels may not necessarily be deployed at the incident immediately. In some instances these appliances may not be deployed at all due to the incident being brought under control without the need for further assistance.

Incident Controllers must establish a staging area as soon as possible for the holding of incoming appliances to prevent unnecessary congestion at the incident, which could hinder operations and compromise safety.

A staging area is set up for incidents of extended duration and size or where congestion could occur. This is an area designated for backup, supplies, personnel, equipment etc, to be stored and kept on standby in case of need. This can also be a location that is used to position vehicles that may be required for incidents such as high-rise incidents that have no facilities but allows the incident control zone to be kept clear of non-required vehicles but allow crews to move into the incident control zone for operations.

Staging Area Officer - appointed by the Operations Officer, approved by the Incident Controller and will be identified by the appropriate tabard. The Staging Area Officer is responsible for managing all resources within a staging area for a specific incident or event. To maintain the effective application of resources at an incident, the Operations Officer will have resources (personnel and/or equipment) staged at a central location managed by a Staging Area Officer.

Generally, once the Incident Controller has requested the staging of appliances, the Officer on the first attending appliance at the staging area will undertake these duties.

FREQUENTLY ASKED QUESTIONS

1. *Why are we implementing a system that was developed overseas?*

Whilst these types of predetermined levels of response had their origins in overseas fire services, GARS models are now being used by most Australian Fire Services including:

- Melbourne Metropolitan Fire Brigade (MFB),
- New South Wales Fire Brigade (NSWFB),
- Western Australia (FESA),
- Tasmania,
- ACT and
- South Australia (SAMFS).

In fact, the system is not new in Australia with MFB using this type of system for in excess of 20 years.

2. *What is wrong with the current system of requesting resources e.g. make pumps four etc.*

Whilst this system has served QFRS well, this new system will reduce the responsibilities and pressure on the Incident Controller.

By simply nominating the alarm level, the IC can be confident that not only will they receive the appropriate number of core firefighting resources, but also the appropriate mix of support and specialist resources to assist bringing the incident under control.

In addition, these additional resources will be responded in the first instance, rather than an incremental build up of resources.

3. *There is a lot of information contained in the relative matrix. How am I expected to remember all of this when I am deciding on an alarm level?*

There are pocket guides and dash stickers available to refer to, but your decision should be made primarily on the number of core firefighting resources (pumps or rural fire brigades) required.

Remember that the alarm level responds double that corresponding number of resources. For example, a 2nd alarm responds four pumpers, 3rd alarm responds six pumpers etc.

If you require one extra appliance rather than responding the next alarm, you can “special call” one additional appliance or one additional rural fire brigade.

4. How does the Wild Fire Alert Level effect GARS?

The regional Wild Fire Alert Level is not related to GARS. If there is a very high fire danger rating for a particular day, the region may increase the level of 1st Alarm response or the initial response, but this does not affect the GARS matrix or its use.

5. I work in an auxiliary station in a regional centre and I have never attended a fire where I can get 8 or 10 pumps so where do I stand?

If you have never had a job at your location where you have required this amount of pumps then you probably won't have any need in the future as well.

Remember that the vast majority of incidents that QFRS attend (no matter where you are in the state) do not progress past a first, second or third alarm.

However, be aware that if you do attend a very significant event at your location (e.g. train derailment) then it is likely that you may have to request a higher alarm level; bearing in mind that you will have to wait a much longer period of time than if you were working in a larger town.

6. Why are there two GARS models

Because GARS responds a predetermined mix of resources to an incident, it is very much dependant upon the available resources in the region.

Due to the fact that there is a greater amount of resources (both human and operational) there will be two models; a South East Queensland Model (Brisbane and South East Region) and a regional model for the rest of the State.

7. What if a Telescopic Aerial Pumper (TAP) is responded as a pumper within an initial alarm response and then I require the attendance of an aerial appliance?

The Incident Controller has a couple of options to consider:

1. Special call an aerial appliance to respond; or
2. Special call an additional pumper to "release" the TAP for re-deployment to meet this requirement.

Note: for response purposes any resource that has a multi-function capability will be treated within the meaning of its initial response, i.e., a TAP responded as a pumper will be considered a pumper irrespective of what function it is actually performing.

