



HM Fire Service Inspectorate

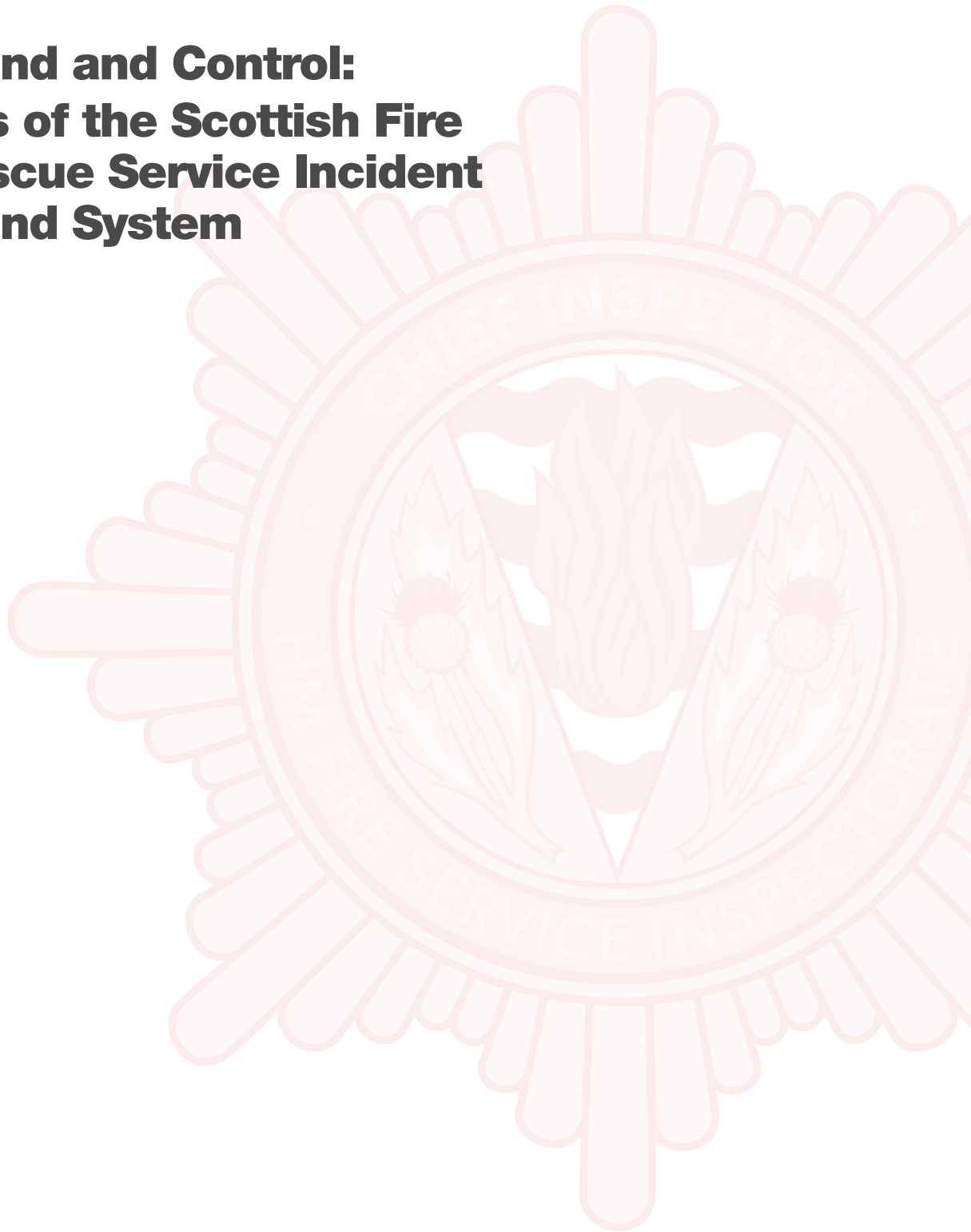
Command and Control: Aspects of the Scottish Fire and Rescue Service Incident Command System



Integrity, Objectivity, and Fairness.

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Acknowledgements

We are grateful to the Scottish Fire and Rescue Service (SFRS) Strategic Leadership Team (SLT), representatives from Response and Resilience (R&R), Service Delivery (SD), Operations Control (OC), Training and Employee Development (TED), Health Safety and Wellbeing (HS&W), the Fire Brigades Union (FBU), Resilience Partners, Industry Partners (Ineos, EnQuest and Diageo), and those other members of staff who provided us with information and contributed constructively to interviews.

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A quality assurance process helped us by challenging a draft of the report. Quality assurance was carried out by Assistant Inspector Richard Gorst who had no participation in the inspection.

All the members of the inspection team contributed to the development of this report and the quality assurance provided a professional challenge to the contents, assumptions and conclusions made. However, the Chief Inspector takes sole responsibility for the report, its contents and conclusions.

Our report reflects the circumstance at the time of our visits and interviews which were undertaken between June and December 2019. The SFRS is continuing to change and evolve, consequently material changes may have occurred since the writing of this report.

Laid before the Scottish Parliament by HM Chief Inspector of the Scottish Fire and Rescue Service under section 43C(5) of the Fire (Scotland) Act 2005 SG/2020/85

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Contents

Acknowledgements

1 _ Introduction and background	02
2 _ About the inspection	04
2.1 _ Methodology	04
3 _ Our findings	06
3.1 _ IC policy and supporting information	06
3.2 _ Inter and intra operability, supporting the incident ground	10
3.3 _ Incident command system	17
3.4 _ Organisational learning	25
3.5 _ Incident command training	27
4 _ Conclusions	32
5 _ Recommendations	36
5.1 _ IC policy and supporting information	36
5.2 _ Inter and intra operability, supporting the incident ground	36
5.3 _ Incident command system	36
5.4 _ Organisational learning	37
5.5 _ Incident command training	37
6 _ Glossary and abbreviations	38
Appendix 1 _ SFRS debrief process flowchart	40
Appendix 2 _ SFRS incident command development pathway	41
Appendix 3 _ About HM Fire Service Inspectorate	42

1 Introduction and background

Fire-fighting and other emergencies attended by fire and rescue services are by their very nature, hazardous operations.

Chapter 2 of the Fire (Scotland) Act 2005 ('the Act') sets out the Principal Fire and Rescue Functions of the Scottish Fire and Rescue Service (SFRS). The SFRS must make provision for the purpose of extinguishing fires in its area (section 9(1)(a) of the Act), and protecting life and property in the event of fires in its area (section 9(1)(b)), for road traffic accidents (section 10(1) of the Act) and for other emergencies (articles 3 to 6 of the Fire (Additional Function) (Scotland) Order 2005).

In making provision under section 9(1) of the Act, the SFRS must secure the provision of the personnel, services and equipment necessary to meet efficiently all normal requirements (section 9(2)(a)), secure the provision of training for personnel (section 9(2)(b)), and make arrangements for dealing with calls for help and summoning personnel (section 9(2)(c)).

*The Fire and Rescue Framework for Scotland 2016*¹ (Chapter 1, Strategic Priority 3, Response and Resilience) requires the SFRS to work with other public sector partners to evolve a holistic and dynamic process of identification, evaluation and assessment of community risk and Best Value in order to prioritise and target its use of resources to ensure an appropriate response to incidents across Scotland and support improved outcomes for communities. As part of this approach, the SFRS should promote optimal command, control, communication and tri-service co-operation in response to incidents.

National Operational Guidance (NOG)² is centrally issued good practice for UK FRSs to draw on. The NOG foundation guidance on incident command promotes the implementation of structured safe systems of work at incidents to enhance Firefighter Safety. It contains guidelines on requirements for Incident Commanders (ICs), including an obligation for them to be adequately trained and supported in carrying out the incident command function.

The foundation guidance supports fire and rescue services to put in place robust arrangements for Incident Command. It is a nationally accepted guide which promotes the implementation of structured safe systems of work at emergency incidents to enhance Firefighter Safety. It also establishes clear guidelines on requirements for ICs and an obligation for them to be adequately trained and supported in carrying out the function.

The Health and Safety at Work etc. Act 1974 includes a requirement on employers to provide information, instruction, training and the provision of supervision as is necessary to ensure, as far as is reasonably practicable, the health, safety and welfare of its employees.

1 <https://www.gov.scot/publications/fire-rescue-framework-scotland-2016/>

2 <https://www.nationalfirechiefs.org.uk/National-Operational-Guidance>

The Health and Safety Executive (HSE) sets out how it will apply health and safety legislation to the fire and rescue service in the document *Striking the balance between operational and health and safety duties in the Fire and Rescue Service 2010*³. The HMFSI joint statement *Health and Safety in the Fire and Rescue Service – Embedding Lessons Learned 2015*⁴, consolidates a number of public reports on emergency incidents attended by fire and rescue services (FRS), in which health and safety has been a leading theme. *The Management of Health and Safety in the GB Fire and Rescue Service – Consolidated Report Based on the 8 Inspections Completed by HSE in 2009/10*⁵, targets health and safety management in the Fire and Rescue Services.

The Inspectorate's *Scrutiny Plan for 2016-21*⁶ identifies Firefighter Safety as an area of interest for Thematic Inspections. Having considered a wide range of topics and following previous discussions with the SFRS, it was decided to focus on 'Areas within Command and Control' for a Thematic Inspection.

Within this Thematic Inspection, the Inspectorate also reviewed action taken by the SFRS following a previous inspection report that was laid before the Scottish Parliament in November 2014⁷. In particular, two recommendations in that report fall within the scope of Command and Control, these are:

1. *The SFRS should develop written guidance on the circumstances in which its staff can decide to depart from a Service policy or standard operating procedure (SOP), and the steps to be taken (such as record keeping) when this occurs.*
2. *The SFRS should continue to develop a national training needs analysis and national systems to allocate training and skills maintenance, with specific emphasis on training all frontline incident commanders to level 1, and identifying how skills maintenance will be provided to incident commanders at all levels.*

The first recommendation describes what is referred to as Operational Discretion within the NOG guidance.

This Command and Control inspection provides an opportunity for the Inspectorate to follow up and review how the SFRS has implemented these two recommendations.

3 <http://www.hse.gov.uk/services/fire/duties.pdf>

4 <https://www.webarchive.org.uk/wayback/archive/20190901145709/https://www2.gov.scot/about/public-bodies/HMFSI/Reports-Publications>

5 <https://www.hse.gov.uk/services/fire/management.pdf>

6 <https://www.gov.scot/publications/hmfsi-scrutiny-plan-2016-to-2021/>

7 HM Fire service Inspectorate, Risk-based operational decision-making in the Scottish Fire and Rescue Service <https://www2.gov.scot/Resource/0046/00463134.pdf>

2 About the inspection

Her Majesty's Fire Service Inspectorate in Scotland (HMFSI) is a body that operates within, but independently of, the Scottish Government (SG). Inspectors have the scrutiny powers specified in section 43B of the Act.

This inspection is conducted under those powers conferred on the Chief Inspector under sections 43B and 43C of the Act and was initiated by the Chief Inspector on his own volition. Further information about HMFSI can be found in Appendix 3.

The intention of this report is to set out the facts, present the Chief Inspector's independent view of the situation and, where appropriate, make recommendations to the Service for adoption in the future. These recommendations will be followed up by a re-visitation, after a suitable period of time has elapsed.


2.1 Methodology

The inspection methodology used is similar to our Local Area Inspections and previous Thematic Inspections. It provides a structure to our inspection which is risk-based and proportionate.

The inspection commenced with a desk top review of the SFRS's Policy, Procedures and data in relation to how the Service delivers its Command and Control and Incident Command functions. We undertook face-to-face interviews with personnel in the posts of Deputy Chief Officer (Director of Service Delivery), Director of Response and Resilience, Director of Training and Employee Development, staff responsible for delivering Incident Command Training, Incident Commanders (ICs) levels 1-4, staff responsible for Operational Assurance (OA), a range of staff from the SFRS Operations Control (OC) rooms, operators of Command Support Units (CSU), and Operational Firefighters at various locations across the Service.

The aim of our inspection is to assess the effectiveness and efficiency of areas within the SFRS Incident Command System (ICS), Organisational learning and IC Training, with particular focus on the Command and Control of Operational Incidents within the SFRS in the following areas:

- Defined roles and responsibilities on the Incident Ground and consideration of Interoperability and Intraoperability.
- The command support structure and systems in use.
- How the Service uses decision logs on the incident ground and how they are used to inform learning.
- The application of sectorisation and cordons at an incident.
- The debriefing arrangements in place for reviewing incidents, including how learning is fed back into policy and procedure development to improve performance.
- How the Service's Operational Discretion policy is implemented and what records are kept.
- How the SFRS delivers IC training levels 1-4, and ensures the maintenance of skills at all levels and reports and monitors IC competence.
- Identifying and reviewing a SFRS structured debrief of a large scale incident which occurred within the last 18 months.



We visited Incident Command training venues, Service operational control rooms, relevant departments and a variety of fire stations whilst undertaking this and other Thematic Reviews together with Local Area Inspections, to gain a good overview. This enabled us to cross-reference the written policies, procedures and any data relating to Incident Command.

This inspection is not a comprehensive in-depth audit, albeit it is sufficiently detailed in order for the Chief Inspector to give a professional judgement on the activity and suitability of the Service's Command and Control function. It has established to the Chief Inspector's satisfaction the facts needed to draw conclusions and make recommendations where appropriate. The SFRS itself has a programme of internal audits which involve a detailed look at its Strategic Functions, and we do not want to duplicate that work, although we do take these into consideration whilst carrying out our inspections. The sampling methodology that we adopt is not guaranteed to identify all potential areas for improvement or good practice; we intend that it is a proportionate activity that provides an overview of the IC function, comparable with other inspections that we carry out.

Our report is the product of empirical evidence from our Local Area Inspections, direct thematic observations and interviews with strategic and function specific managers, along with other SFRS staff. It is reflective of the circumstance at the time of our visits undertaken from June to December 2019. We also incorporate the recommendations following our previous report *Risk-Based operational decision-making in the Scottish Fire and Rescue Service*⁸, in order to assess progress.

There are occasions where our observations could be reported against more than one heading. Our aim is to ensure that our findings are allocated in the most appropriate place or places to give a comprehensive understanding of our findings and therefore may be found within more than one heading.

During the inspection, HMFSI provided feedback to key SFRS staff including senior managers, so that any significant emerging issues and themes could be acted upon at an early opportunity.

⁸ Op cit page 03

3 Our findings

3.1 IC policy and supporting information

The SFRS has a process to monitor, review and update its operational procedures, both pro-actively and re-actively, with command and control being a key aspect. Recent enhancements to overall command and control include:

- Nearest officer mobilising, rolled out nationally up to and including the rank of Deputy Assistant Chief Officer (DACO), where along with the pre-determined attendance (PDA), the nearest officer to an incident will be mobilised ensuring command and control is enhanced, as early into the incident as possible.
- Active monitoring, rolled out nationally, where officers not required to mobilise initially or providing remote support, listen into incident messages and react appropriately, offering advice or mobilising if required to take control of an incident or mentor staff.
- Review of strategic mobilising locations (SMLs) which are designed to ensure a blanket coverage of command officers nationally. Post review, the facility at Lochgilphead was moved to Oban to provide a reported better all-round cover.

Information relating to all aspects of command and control are contained in a generic *Incident Command Policy*⁹. At the time of inspection, the IC Policy has not been reviewed since its launch in August 2015 and is over a year past its intended review date. The SFRS position was that it was waiting for the outcome of the NOG review, which was due to commence, but had been delayed and the Service has since decided to go ahead with its own review.

In order to monitor the practical application of Incident Command, it is written into policy that working and user groups should meet regularly. However, these meetings are not taking place. We are assured that this workstream is, however, carried out informally between R&R and the Incident Command training team, and monitored at the Policy and Procedure meeting. This is reported as an intended measure to rationalise the number of meetings, in an attempt to make workloads manageable and that business is being carried out through other avenues. We feel that this format marginalises SD end users and that Incident Command delivery and collaboration forums should be formalised in a usable structure, as part of the policy review.

More specific guidance is contained in Standard Operating Procedures (SOPs) of which the SFRS has many, but not a full suite to compliment all foreseeable scenarios. Some noteworthy omissions include:

- Electricity
- Confined Space
- Safe Working at Height
- Hazmat

⁹ The SFRS Incident Command Policy July 2015

SD staff are critical of the SOPs for being too extensive in detail and not as user friendly as they should be, we recognise this from previous HMFSI inspections and support the assertion. R&R in recognition of this has initiated a programme of review to reduce the size of SOPs. HS&W staff are of the opinion that there are too many SOPs incorporating repeated themes and feel that the number could be rationalised. It is clear that work needs to be carried out in this area to provide clarity and an overall direction of travel.

Another aspect in support of Incident Command is the generation and use of Operational Risk Information (ORI). HMFSI published a detailed report on this subject in February 2019¹⁰, which contained 15 recommendations for the SFRS. To date the SFRS is working through an action plan in relation to this report. However, our fieldwork for this inspection identified ORI that was previously available for some risk sites, but had not been transferred to the new format, thus hindering command and control in the event of an incident at that risk site.



Figure 1: Multi Agency information sharing

10 HM Fire Service Inspectorate, The Scottish Fire and Rescue Service's arrangements for the provision of Operational Risk Information <https://www.gov.scot/publications/scottish-fire-and-rescue-service-provision-of-operation-risk-information/>

3.1.1 Operational Discretion

In our report *Risk-Based operational decision-making in the Scottish Fire and Rescue Service*¹¹ 2014, we recommended that “The SFRS should develop written guidance on the circumstances in which its staff can decide to depart from a Service policy or SOP, and the steps to be taken (such as record-keeping) when this occurs”.

The SFRS fulfilled the recommendation by introducing an Operational Discretion Policy¹² in July 2015. We found that the introduction and use of this policy, although welcomed by most staff, has not been entirely successful.

It is reported as not often used and in some cases, when it is, not used correctly, with too much room for interpretation. We find that there is a lack of understanding across all staff levels regarding the interpretation of the policy, with staff not confident in its use, despite input about it being delivered on Incident Command training courses and staff being challenged to use it. A common view is that although there is a place for the policy, there is a reluctance, possibly through lack of confidence, for ICs to use it, due to increased scrutiny applied to an incident where it is used. We identified during our fieldwork that some ICs based in remote and rural locations are unaware of the policy.

Commanders who might be in a position to use operational discretion and who make a conscious decision not to, may have been influenced by a situation where an IC who used the policy was later suspended, pending a disciplinary process. However culturally, the SFRS has learned from this instance, with the Deputy Chief Officer stating that “operational discretion is entirely appropriate but ultimately utterly useless unless we talk about it. We need a safe space to discuss decision-making, through operational assurance. We need to step out of the culture of combing over incidents to identify what went wrong. We need to get to a place where we are comfortable discussing perceived mistakes, made at difficult times, under difficult circumstances.”

HMFSI welcomes this recognition that staff need to feel supported in the execution of their duties in order to use operational discretion confidently and transparently. However, in carrying out our fieldwork, we have seen little evidence that this message has predisposed frontline Commanders to use it. Ultimately, if used correctly, operational discretion should inform a change to the operating procedure that necessitated the IC’s deviation. We found no evidence that instances where operational discretion has been used, has led to changes in operating procedures.

Operations Control (OC) staff are of the opinion that their discretionary decision-making is not covered by the policy. They are generally comfortable utilising discretion in the execution of policy and procedure and gave good examples, where decision-making and rationale was logged as evidence. They felt that they would benefit from a similar policy supporting their role.

11 Op cit page 03

12 The SFRS Operational Discretion Policy Version 3.0 November 2018

Recommendations

- The SFRS should, as part of the incident command policy review, reinvigorate fully inclusive governance structures for monitoring the practical application of the policy, to ensure stakeholder investment in the process.
- A strategic direction of travel for SOPs should be agreed and a programme of modernisation implemented, addressing the concerns of users and stakeholders such as HS&W, to ensure appropriate coverage of subjects and ease of use.
- Confidence in the use of the Operational Discretion Policy should continue to be promoted during incident command training and culturally through operational assurance and improved attitudes to its use.

3.2 Inter and intra operability, supporting the incident ground

3.2.1 Integrated emergency management

The SFRS supports Integrated Emergency Management (IEM) through the Preparing Scotland guidance¹³. The SFRS has built, over a number of years, key partnerships within regional and local resilience forums. Our findings indicate a good relationship between resilience partners and the SFRS. Resilience partners feel that the SFRS links in very well in support of training and exercising. With emergency coordination groups attended and chaired by the SFRS regularly, including in areas as remote as the Orkney Islands and Shetland Islands.



Figure 2: Preparing Scotland: Resilience Guidance – Hub and Spokes model

13 <https://www.readyscotland.org/ready-government/preparing-scotland/>

In support of IEM, the SFRS has developed a general information note (GIN) titled Scottish Co-ordination and Advisory Framework¹⁴ (SCAF) which is in its own words *“designed to provide robust, yet flexible response arrangements to emergencies that can be adapted to the nature, scale and requirements of the event. In this way, it supports FRS’s (sic) in the resolution of major incidents, whilst affording valuable coordination and advice at the interface between the organisation and central government as well as other resilience partners.*

SCAF is also designed to provide support to the wider resilience, emergency structures and Scottish Government, including the UK Government by ensuring that normality is restored to those communities affected by the emergencies as quickly and seamlessly as possible.”

In discussion with resilience partners we found that this framework was created with resilience partner involvement, however key partners working in Local Resilience Partnerships (LRP) were not consulted (partners interviewed offered that this was partly due to their own internal lack of consultation). They expressed disappointment with the framework, with confusion over its purpose and exclusive nature. It was felt that it needed an aim and a purpose, especially as the document has an impact on partners and partnership working.

Resilience partners feel that the framework does not make clear, links to Preparing Scotland guidance or Regional Resilience Partnerships (RRP) and is missing a communications strategy and reference to, and use of, the Scottish Resilience Development Service (ScoRDS), multi-agency training programme. They also believe that across the resilience sector terminology needs to be consistently used, stating for example misunderstanding with the inter-usage of the terms Multi-Agency Command Centre (MACC) and Resilience Partnership (RP). In general they expressed a need to understand how it all fits together within the ethos of fully integrated partnership working.

HMFSI share partner concerns that a lack of clarity or shared understanding of terminology in the resolution of a complex situation is not a desirable position. We believe that any review of the framework should include canvassing the views of the wider resilience community.

Within the SFRS, three Station Commanders (SC) oversee resilience partnership work at Service Delivery Area (SDA) level and manage resilience aspects including partner contact, event planning and business continuity amongst other duties. In carrying out these duties each SC is supported by non-uniformed Civil Contingency Officers (CCO). Partners feel that the CCOs are not sufficiently empowered to deputise for the SCs in their absence and as such, meetings are often unattended. They also questioned whether the SC role was the correct level of responsibility for such a key position. We feel that this is a complex role which requires continuity. It carries reputational risk for the organisation and the SFRS should consider the governance and role sizing of this key area in order to further support the role and resilience partners.

Through resilience forums, the SFRS also supports industry partners in the pre-planning, exercising and coordinating of major incident events. During our fieldwork we visited large industrial sites integral to Scotland’s economy, including petrochemical sites and spirit distillation and bonded storage sites, to which the Control of Major Accident Hazards

¹⁴ GIN – SCOTTISH CO-ORDINATION AND ADVISORY FRAMEWORK (SCAF) Version 1.1: 22/10/2019

(COMAH) Regulations 2015¹⁵ apply. We found that the scale of commitment and support to partners from the SFRS differs across the country.

In the central belt we find a good relationship with the SFRS, with some site managers reporting regular training and exercising regimes. We observed good practice in some areas, where mutually beneficial training is supported and carried out by both organisations. We found industry representatives visiting fire stations and vice-versa to share knowledge and understanding of equipment and techniques. Some areas are integrating more, promoting equipment sharing and mutual aid agreements, for example Ineos in Grangemouth.

However, in more remote areas, site managers report that interaction is problematic, with requests in pursuit of training, visitations, table-top exercises or the testing of emergency plans, going to officers in city centres, in some cases hundreds of miles away, with invitations routinely not taken up. In one case the site operator is unsure if there are enough SFRS assets on the island to deal with a full building fire in one of the high risk production areas. It was reported that if a serious fire occurred, with no life risk, the business continuity plan assumes a total loss of the building, but the operator is unsure if the SFRS is aware of this strategy. The manager stated that “we need better interaction, with better planning, training and exercising. We are very open to any form of training and exercising and welcome involvement by the SFRS”.

Some operators that have sites across various parts of the country report a geographical inconsistency in SFRS engagement.

We find that site operators in general would welcome contact and interaction with local SFRS resources, in site familiarisation, training and exercising. We think that the Service should have a standard approach to this throughout Scotland, rather than the existing arrangement which is predicated on geographical location.

3.2.2 Joint emergency services interoperability principles (JESIP)

JESIP is a multi-agency interoperability framework¹⁶ for responding to and recovering from emergencies in the UK. It provides principles and generic guidance on the actions that Commanders should take when responding to multi-agency incidents of any scale. It is built on common principles for consistent terminology and ways of working.

In order to embed and enhance JESIP in Scotland, the emergency services, through the Scottish Multi-Agency Resilience Training and Exercise Unit (SMARTEU), run a multi-agency Joint On Scene Incident Command (JOSIC) course. We observed an example of the first phase of this training. The common principles are emphasised throughout every presentation, in order to promote joint working at major or significant incidents. It was very well attended by all partners with good sector competent speakers.

15 <https://www.hse.gov.uk/pubns/priced/l111.pdf>

16 https://www.jesip.org.uk/uploads/media/pdf/JESIP_Joint_Doctrine-The_Interoperability_Framework_%5bedition_2-July-2016%5d.pdf

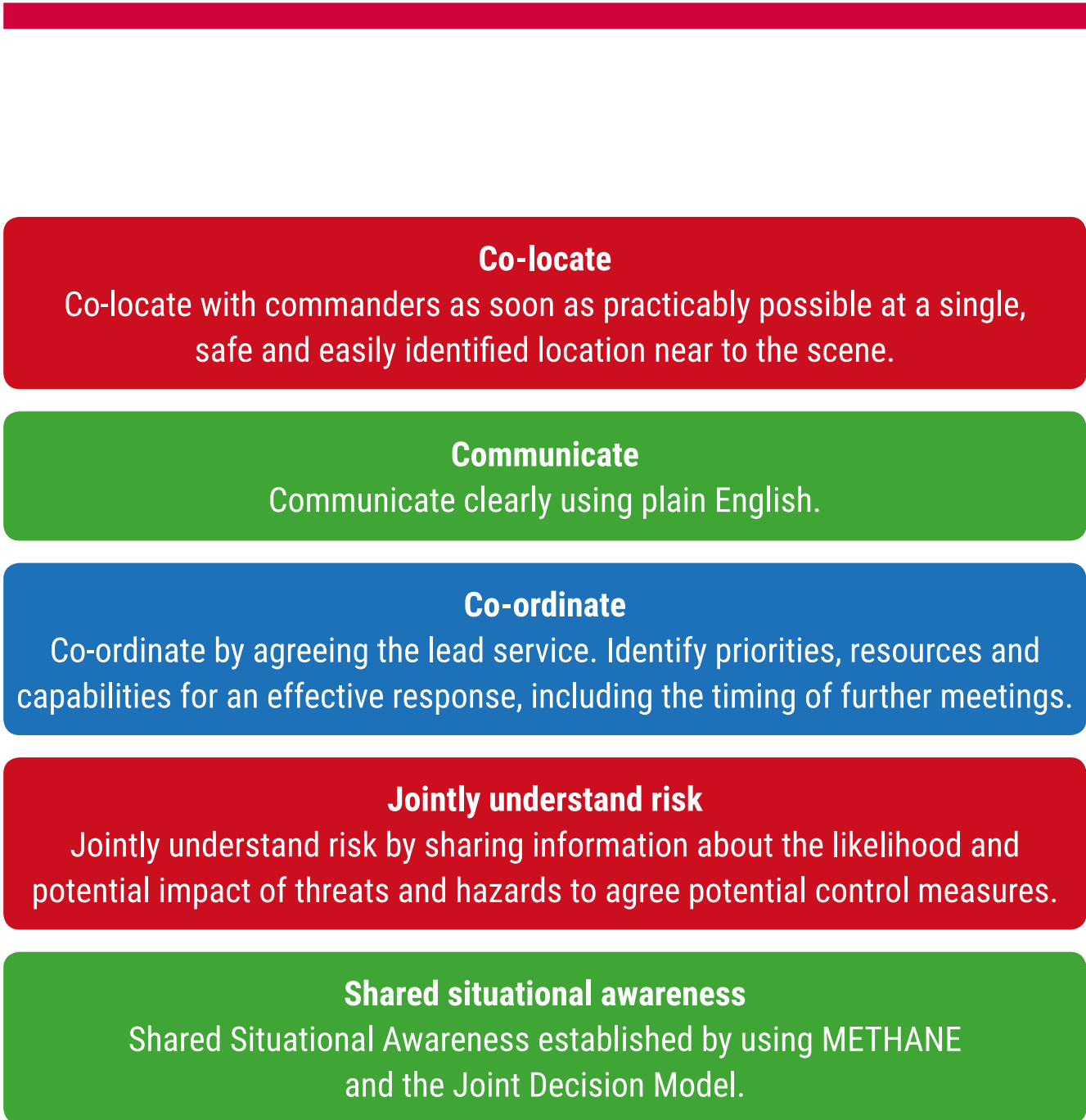


Figure 3: JESIP principles – jesip.org.uk

During our fieldwork we found that the JESIP principles are well embedded in the SFRS flexi duty officer (FDO) cadre, but are not as clear at the Watch Commander (WC) level, being those persons who would lead the first response of any incident. WCs we interviewed have the following concerns:

- They don't have access to development opportunities afforded to SCs.
- Their level of responsibility has diminished.
- They think that a WC is capable of greater responsibility and commanding a greater number of pumps at incidents than the Service policy and practice determines.
- When a WC is managing an incident well, oncoming FDOs take charge when it's not required, rather than carry out a mentoring role, which would support personal development.
- In their opinion, professional trust has been, to an extent, eroded from the WC role.

OC staff declared that they understand the principles of JESIP and are well prepared should a large multi-agency incident occur. Control Managers for the three blue light organisations meet regularly and exercise. There is a tri-service call test once per week, with a scripted test monthly. This tri-service call will be set-up between the three blue light control rooms to share information and intelligence in the event of any major incident. There are tri-service workshops to understand how the three service controls manage incoming calls and subsequent task management in order to understand operating differences.

We believe that the application of the JESIP principles needs to be robust at all levels of the organisation and as such should be better promoted beyond the FDO cadre. Training should be embedded at the earliest opportunity for all frontline Commanders with improved development for watch-based Commanders.

3.2.3 Community Asset Register (CAR)

The CAR is intended to be a Scotland-wide database of accredited volunteers, willing to assist emergency services during an emergency incident or situation. Volunteers can be individuals or groups with skills or assets that can be called upon to assist, as and when required. The creation of the asset register was in response to one of the recommendations of an independent review of Open Water and Flood Rescue in Scotland in 2009¹⁷. Phase one of the CAR was launched in 2017 building on existing local databases, and is hosted by the SFRS on its information and communication technologies (ICT) systems.

In hosting the system, the SFRS has taken a lead role in maintaining and progressing the register so it can be utilised efficiently and effectively. However, stakeholders we spoke to were critical of the CAR, stating that it is in a precarious position, with very little forward momentum at present and needs to be further developed. They went on to explain that matters are not helped by a lack of access to the system. It cannot be accessed outwith SFRS ICT systems which are only available to Service employees, and this is not ideal for a partnership approach.

Phase two of the project is said to incorporate an automated application for the register, to remove the paper-based version in operation at the moment and to facilitate third party external access. It is not clear to stakeholders as to when this will be progressed and the project is in danger of losing stakeholder buy-in.

The SFRS has invested a great deal of time and effort in building and hosting the CAR and is given credit for it. However, this work is in danger of being undone as the continuity of the project has stalled. We feel that the project would benefit from strategic guidance and the activation of a fully representative working group to deal with issues that are disenfranchising partners.

¹⁷ <https://www2.gov.scot/Publications/2009/12/04095925/8>

3.2.4 Tactical advisors (tac-ad)

The SFRS, in fulfilling its statutory duties, has an obligation to respond to a diverse range of emergency incidents, which may require the use of specialist skills and attributes. Tac-ad, with specialist sector-specific training, may support ICs at these incidents, offering guidance in the use and limitations of specialist tactics and equipment.

The role of the tac-ad is generally fulfilled by a FDO who is trained to a national standard in relation to the relevant capability. The SFRS is establishing ‘tac-ad family groups’ and as a new FDO joins the cadre they should be nominated to a tac-ad family and be given suitable training in its requirements. At present the skills are not equally balanced across all duty groups and personnel. Some officers have multiple attributes, while others have none, despite some continually pushing for their own development. All officers we interviewed identified this vulnerability however it is especially apparent in the North SDA.

During our fieldwork we were made aware that there was no specialist trained Hazardous Materials (Hazmat) personnel on Shetland. This despite having the large petrochemical complex at Sulom Voe. If Hazmat specialist advice is required on Shetland, support will come in the form of a phone call or over the radio network (remote areas are in general wholly reliant on specialist advice via phone or radio). If a specialist officer is required to mobilise, OC would have to get authorisation from an Area Commander (AC) and liaise with the Maritime and Coastguard Agency or ferry companies to organise transportation. The SFRS is currently looking at technology to assist in this support, specifically body-worn cameras or tablets.

There are currently four established tac-ad family groups and four to be developed as shown in table 1.

Tac-Ad Family	Capabilities	Status
A	Water Rescue Flooding High Volume Pump	to be developed
B	Hazmat/Environmental Protection Detection, Identification & Monitoring (DIM) CBRN(e)	established
C	Hazmat/Environmental Protection Detection, Identification & Monitoring (DIM) Nuclear	established
D	Urban Search and Rescue (USAR) Rope Rescue	to be developed
E	National Inter-Agency Liaison Officer (NILO) Marauding Terrorist Attack	established
F	Wildfire Large Animal Rescue	established

G	Enhanced Command and Control	to be developed
	Emergency Procedure Advisor	
	Resilience Liaison Officer	
H	Marine Operations Group	to be developed
	Foam	

Table 1: Tac-ad families

It is clear that a lot of work still has to be carried out in the development of tac-ads, as the SFRS does not have a robust cadre covering all of the specialisms. This is recognised by senior managers who explain that the requirements for the tac-ad role have still to be developed in Scotland. The SFRS is working towards a phased implementation of the tac-ad roles, with the roles needing to be added to the training standards and the setting out of appropriate pathways. Staff from R&R met with the National Resilience Assurance Team (NRAT) on the implications of tac-ad roles. They are exploring the outsourcing of initial training from NRAT, with what cannot be delivered nationally carried out in-house. In anticipation of the tac-ad roles expanding, TED are working on a training for operational competence (TfOC) framework but need to work with R&R to outline competency parameters.

One prominent tac-ad area that the SFRS is working on at present is Wildfire. A Group Commander (GC) is a member on the National Fire Chiefs Council (NFCC) wildfire working group and therefore integrating at a national level. There is a training package available consisting of 12 modules, developed utilising assistance from Northumberland and South Wales FRSs in its development. The Service also has good relations with the Catalonia fire service in Spain, and organisational learning is shared on joint training and exercising. There is a shared interest in the Horizon 2020 project, which is a European forest fire planning model that the SFRS may invest in: it contains an additional training element.

Recommendations

- The SFRS should review its resilience governance, including the SCAF document, in co-operation with wider resilience partners to enhance and promote, fully integrated partnership working.
- The SFRS should reinvigorate strategic focus on the CAR and implement a fully representative working group to progress issues that are disenfranchising partners.
- The phased implementation of the tac-ad role should be progressed covering all identified specialisms, ensuring an equitable spread of advisors across all duty groups and representative of risk in geographical areas.

3.3_Incident command system

The SFRS operates an Incident Command System in line with the National Operational Guidance produced for the UK Fire and Rescue Services¹⁸.

The SFRS, in its Incident Command SOP¹⁹ states that: *“The Incident Command System (ICS) gives the IC a clear framework to structure and organise an incident. It can be adapted to all sizes of incident to allow ICs to organise and deploy resources in an efficient and safe way. The ICS allows the IC to use Operational Guidance and health and safety arrangements, tailored to an incident and its objectives. This helps to achieve a balance between benefit and risk.”*

3.3.1 Command support

In order to support the ICS a command support structure is put in place which provides a network of support around an IC, in order to safely and successfully manage an emergency incident. Command support resources are scaled up or down dependent on incident requirements or size at any given time.

3.3.1.1 Operations Control

A main and constant key area of command support is operations control (OC) whose staff monitor and support every emergency incident ongoing in Scotland attended by the SFRS. There are three OCs, located in the North, West and East of Scotland, all of which use different legacy operating systems in pursuit of shared goals.

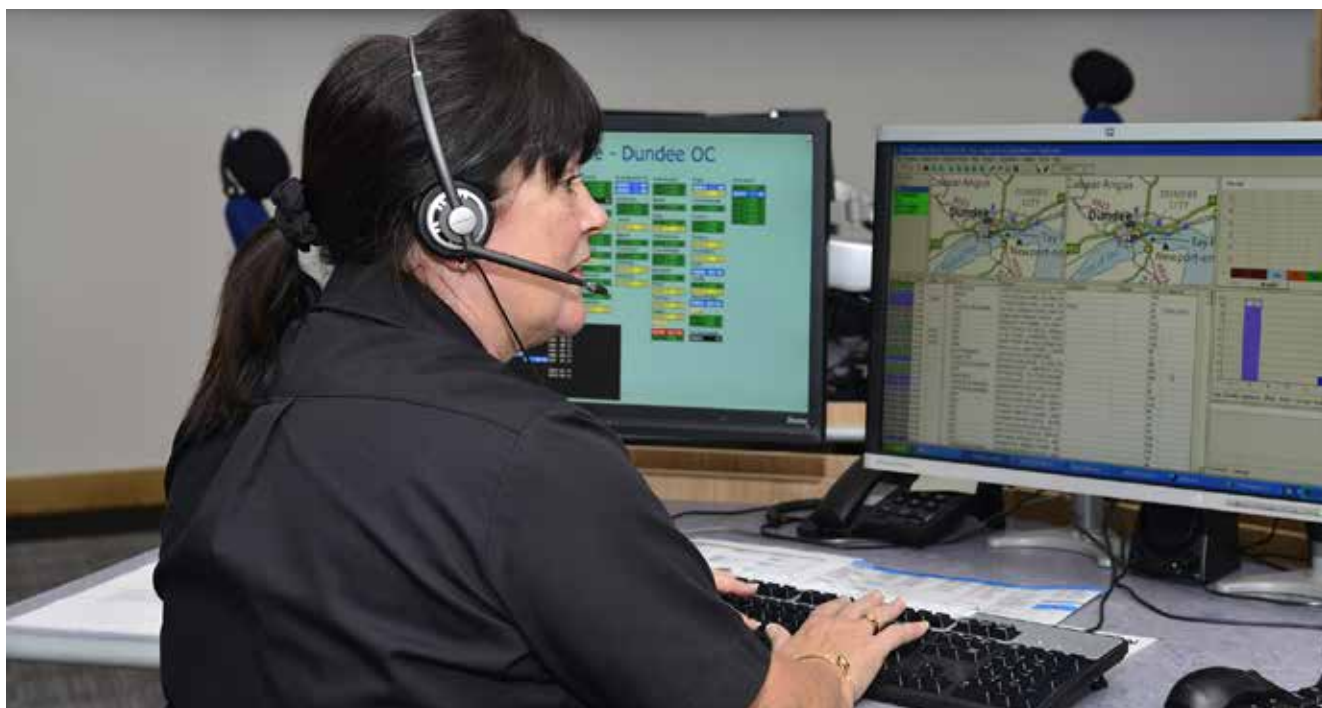


Figure 4: SFRS Control Operator – SFRS Corporate Communications

¹⁸ <https://www.ukfrs.com/guidance/incident-command>

¹⁹ SFRS Incident Command SOP Version 3.0 (Date: 06/02/2019)

Although the operating systems are different, OC managers have undertaken a 'Ways of Working' exercise to identify and address local variations and now report that 80% of working practices are the same across the three OCs. Each OC has had to make changes in order to conform to good practice.

The 'Ways of Working' workshop sessions are reported to incorporate beneficial training and are attended by representatives at every level from each OC. Mixed groups work on best practice solutions, promoting in some cases, immediate change to working practices.

Each OC hosts an Incident Support Room (ISR) which is a separate area within the OC which can be utilised for logistical support when there is a large or complex incident or event. The ISR will be staffed by a mixture of operational FDOs, flexi OC managers and control operators if available. A contemporaneous note is kept in the ISR in support of the incident, as a record of rationale and decision-making.

A project is in an advanced stage to develop a single command and control mobilising system for Scotland, named the Command and Control Futures (CCF) project, working with the appointed contractor Systel. The project has been running for six years and has seen five different project managers: a situation which is not ideal for a project of its size and complexity. The budget for the project is around £12 million. It is reported that procurement for the project has been challenging, taking a long time to get a detailed design specification, resulting in milestones and delivery timescales being delayed. The timeline for delivery of the project and how it will affect dependencies is under scrutiny, with the new system currently programmed to go live, in two of the three OCs, in quarter four of the financial year 2020-21, with the third OC in the following quarter. At the go live date the system is planned to incorporate all high rated priority requirements, with medium and low priority requirements introduced at a negotiated date thereafter. However, the current COVID-19 impact assessment timeline review, could result in this timeline moving further into the financial year 2021-22. We understand that Systel is concurrently building similar systems for other FRSs which may lead to competing demands at key times, potentially further impacting on delivery timescales.

OC staff are of the opinion that there will be key benefits from the new system. One staff member stated "we will truly become a national service with a national control, with one system at three sites. Interoperability will be significantly enhanced, with no borders and full mapping covering the whole country, allowing full resourcing interoperability". Built into the system are two data centres with twinned high speed links to the three OCs to ensure 100% redundancy in the system and resilience will be enhanced through mobilising compatibility across the three sites.

Staff and representative bodies also consider that the Service is in immediate need of the new system. The legacy systems are approaching the end of their lifespans with support currently costing around £600,000 per annum. Legacy systems are not operating efficiently, and are prone to systemic issues, so the longer they run the greater the risk. Staff are consistently having to utilise workarounds, as some systems lack compatibility. This adds pressure to what is already a busy role, with some speculating that this is contributing to increased sickness levels amongst OC personnel.

With legacy systems in decline and competing demands possibly affecting delivery timescales for the new system, we are concerned that there is little evidence of available contingencies, should significant systemic failures be encountered.

3.3.1.2 Command support units (CSU)

CSUs are mobile command centres, typically containing communications and electronic equipment. They are normally positioned at a forward control point providing accommodation and frontline support to an IC, command team and partners. There are eight CSUs in Scotland strategically placed throughout the country offering support to most areas. The locations are shown in table 2.

SDA	CSU Location
North	Inverness, Altens (Aberdeen) and Dundee
West	Milngavie, Bellshill and Dregghorn
East	Bo'ness and Liberton (Edinburgh)

Table 2: CSU locations



Figure 5: Command Support Unit (CSU) – SFRS Corporate Communications

During our fieldwork we visited fire stations containing CSUs in the North, West and East SDAs and noticed differences in makeup and staffing due to legacy provision. Staff explained that internal layouts are now a lot better and information boards are now interchangeable with other CSUs. This is reported to make a big difference for handing over to oncoming CSU crews during a protracted incident. There are a few material differences, with some CSUs having an electronic door lock to prevent personnel entering during set up which was said to be beneficial. Once set up, some units have a red flashing beacon to show that they are in operational use. CSUs were recently equipped with pen drives making the handover of digital files easier, having had to email documents prior to this. New interactive display technology has been brought into service, to assist with the digital presentation of key information to Commanders and partners, assisting in the generation of a clearer overall picture of the incident.

Fire station personnel are critical of the training available for staff who crew the CSUs (we did not find any evidence of formal training at the three stations we visited, however one had been contacted by a member of TED to discuss training requirements). At the time of writing there is no dedicated course to operate a CSU. Experienced crew members are expected to pass on skills and knowledge to others to ensure competence. There is an area on the Learning Content Management System (LCMS) dedicated to CSU training modules however this area is not populated with any information. Staff explained that they received 30 minutes of training from an ICT trainer on the new interactive display technology. They were shown the functionality of the equipment but not the expectations for its use in an operational environment. FDOs are trained to consider and use the CSU resources but crews who operate CSUs are not trained to anticipate and meet FDO expectations. (This was highlighted as key learning from the second major Glasgow School of Art fire). This issue would benefit from better integration with the incident command training team, encouraging reciprocal learning.

TED are aware of these shortcomings and plan to embed training for CSU operators with the incident command training team, running mock incidents for development and also carrying out standardisation training days. However this training has been planned for quite some time. We have subsequently learned that this training has begun with units in the North SDA benefiting from the training first, with the remaining stations given training in due course.

CSUs do not have dedicated crewing, with staff having to move from their pumping appliance as and when required. This is how the majority of specialist vehicles in Scotland are crewed. However, it can cause mobilising delays should a pump be remote from the CSU when a call comes in requiring CSU attendance. Crew numbers can also differ, with one CSU we visited staffed with four personnel as opposed to five in other areas. It is reported that a CSU is challenging to operate efficiently with a crew of four and we would urge the Service to consider standardising crewing for CSUs.

Another initiative to support CSU operations at larger, protracted incidents would be for OC control operators to supplement CSU crews at incidents. If availability or opportunity permitted, experienced operators would add value and provide excellent two way learning in support of CSU crews. OC staff have discussed this and believe that it would enhance understanding between control operators and operational crews, significantly improve the standard of messages passed and promote all-round good practice.

In our local area inspections, and often highlighted during incident debriefs, incident ground communications are reported to be problematic. The Service, in recognition of this, has initiated a project to look at the procurement of new digital fireground radios. The research, development and innovation function are leading this project and hope to form a user intelligence group (UIG) to complete a thorough specification of requirements and testing. Work has to be carried out in deciding how to incorporate into the procurement intrinsically safe radios, for use at incidents with flammable atmospheres. This issue was also raised with us by industrial partners, who had concerns as to the lack of availability of intrinsically safe radios amongst attending SFRS personnel.

A common theme reported by all CSU crews was difficulty encountered with the new call-sign system. When mobilised to an unfamiliar service delivery area, crews have little understanding of appliance call-signs attending the incident ground. The complexity of call-signs make it difficult to identify appliances and crews and therefore, at a large incident, the relief of numerous appliances efficiently. Staff stated that, if station names were incorporated into the call-sign, it would simplify identification, allowing for ease of marshalling and changeover management at incidents.

3.3.1.3_Command Support pack

The implementation of command support is crucial from the initial attendance at every incident. Not every incident warrants the attendance of a CSU, though even when a CSU is required, command support has to be up and running prior to its attendance and set up. With this in mind pumping appliances in Scotland are issued with a command support pack, in order to support the initial IC. During our fieldwork we found that some pumping appliances do not have support packs. In the areas we visited, while most appliances had a pack, they differed very much in look and content dependant on the area visited.



Figure 6: Command Support Pack

Command support packs are not standard across the Service. In the packs we sampled, there is a mixture of legacy and SFRS equipment and paperwork. We also found differences in their usage, where some areas will use them regularly and other areas never use them at all.

The SFRS is working on the development of a standard command support pack and we welcome this, however during our fieldwork we found that a number of RDS and Volunteer staff have limited or no knowledge of the command team principles, or how to use the command support pack in support of an IC. This will have to be addressed along with the roll-out of the new equipment.

An important part of the command support pack incorporates the operational H&S documentation. In the SFRS Health and Safety Annual Report 2018-19²⁰ it states that 49% of accidents occurred during operational activities. Listed as a contributory factor to this is an insufficient dynamic risk assessment (DRA) or analytical risk assessment (ARA) that fails to recognise the risk factors. In discussion with staff we found that generally the quality of ARAs is not good and that they are rarely reviewed and scrutinised post-incident. It is acknowledged that near miss reporting from the incident ground is rare when benchmarked against normal day-to-day reporting of near misses. HS&W staff are of the opinion that risk perception changes on the incident ground and near misses are viewed as more intrinsic to the environment and therefore not logged. This view is perhaps the explanation for the fact, as also reported in the Health and Safety Annual Report 2018-19, that broadly speaking, the split between operational, non-operational and training near miss events are similar. Being 39%, 31% and 30% respectively of the events reported. We also note during our local area inspections that near miss events are more often in the non-operational or training environment.

We interviewed one remote, rural Commander who was appointed as safety sector officer at a hotel fire but had not completed an ARA for the incident ground: the documentation for which is normally contained in a command support pack. He had never been trained in the role and was not aware of an ARA. This constitutes an organisational risk for the Service and standardised equipment and training are required in this area.

3.3.1.4 Decision Logs

Decision logs are very important at all levels of incident response and as such logs should be kept throughout every layer of command support. In OCs and ISRs, staff have a contemporaneous incident log into which they incorporate key decisions. CSUs have a bespoke decision log to record the IC's decisions and rationale. This log is updated by the command support team in liaison with the IC. Where an incident does not warrant the attendance of a CSU, decision-making should be recorded in the official SFRS notebook; a standard issue to all officers.

²⁰ https://www.firescotland.gov.uk/media/2180571/20191212br02_19draftswannualreport2018_19_combined.pdf

Initially as an interim measure, SFRS implemented its own decision log template, however after working with blue light partners, it has now moved to an agreed tri-service log. SFRS staff are now being sent on a tri-service loggist course in order to fully understand the importance of the role and how to carry it out effectively. Unfortunately this course is predominantly only open to FDOs. We feel that there is value in expanding access to this course to include CSU operators in order to enhance their understanding of decision logs, and the importance of accurate, timeous recording.

During our fieldwork we comprehensively checked officers' official notebooks for entries and found that the vast majority of SFRS staff are not using official notebooks at any significant level. For those that had entries, the quality was in most cases poor. Junior officers in general did not understand their responsibilities in recording decisions made on the incident ground. Despite our understanding that the SFRS legal department present information on defensible decision-making on the Incident Command courses and provide information on the appropriate use of official notebooks, we have seen little evidence that this is readily adopted or understood by Incident Commanders (ICs). Use of this notebook is governed by a GIN²¹. Staff we spoke to felt that the wording contained in the GIN inhibits usage of the notebook as it is very formal in its approach, giving staff the impression that the notebook is only for use at 'important' incidents. The notebook has to be returned to the Service stores when it is full and staff have concern that there will be critical scrutiny of its content at this stage. We feel that the poor usage of the notebooks constitutes an organisational risk and compliance with the GIN should be encouraged and effectively monitored.

3.3.1.5 Sectorisation and cordons

The majority of staff across all incident command levels understand the purpose of sectors and cordons and implement them regularly at incidents. We understand that Service Commanders have no major concerns over sectorisation and that it is generally good in its application, at those incidents where it is required.

We are told that cordons are generally used well however on occasion they are not marshalled as well as they should be. Larger incident cordon control and specifically multi-agency gateway control should be controlled better, to accurately account for personnel in the hazard area and better highlight a joint understanding of risk, prior to entry. Smaller incident cordons can be on occasion notional and poorly marshalled.

21 General Information Note Official Notebook Version 4.0 (Date: 06/08/2019)

Due to the nature and relatively small size of incidents in remote areas some RDS and Volunteer staff have never implemented sectors or cordons, although through our interviews we recognise that they are aware of the concept. There is a need for practical training in this area to ensure complacency does not set in.



Figure 7: Incident Ground with Cordon – SFRS Corporate Communications

Recommendations

- The SFRS should ensure that the scrutiny of the management of the Command and Control Futures project, involves consideration of contingency planning for systemic failures in current control systems.
- The SFRS should further develop a formal, bespoke course and training requirements, for CSU operators. The layout, staffing and operation of these units should be consistent.
- Consideration should be given to OC staff supporting CSU staff, on location, at larger protracted incidents when availability or opportunity allows.
- The UIG for the procurement of new digital fireground radios should include Scotland wide collaboration with SD end users ensuring representation from urban, rural and remote rural station groups. Adequate provision of intrinsically safe sets should be incorporated into the project.
- The SFRS should evaluate the understanding and ease of use of the current call-sign format and if required devise, in consultation with end users, revised call-signs.
- A standardised SFRS incident command pack should be introduced as soon as possible along with a comprehensive training package in its use, with particular additional support provided to remote rural areas on its introduction.
- The SFRS should monitor compliance with the GIN Official Notebook, potentially through the station audit process, and take remedial action when deficiencies are found.

3.4 Organisational Learning

Continuous learning is a goal of the SFRS. In the command and control arena evidence is generated from many areas including:

- Station audit process
- During incident reviews
- Post Incident reviews
- Debrief process
- Health and safety events
- National operational guidance
- Incident command training
- Command seminars

3.4.1 Operational Assurance (OA)

The SFRS has now embedded an improving culture of operational assurance (OA) through a dedicated OA section, who routinely scrutinise all available data on operational matters. When required, an action plan is generated from any OA issues identified and this feeds back into operational learning. This ensures that officers are updated, with relevant information in order to carry out informed decision-making on the incident ground. The governance around OA is robust with an OA Board overseeing action plans.

There is very limited and sporadic use of 'during incident OA' across the Service. The vast majority of OA is carried out electronically, post incident by an attending FDO. What anecdotal evidence of during incident OA we were made aware of, was mainly in the central belt of Scotland, with little or none carried out in more remote areas, although we do recognise the logistical problems associated with mobilising FDOs to remote locations. We feel that during incident OA is an area that should be enhanced.

The OA team has brought in an OA 21 process which is reported to be the first in the UK. This is a process where urgent operational issues relating to firefighter safety are reported, scrutinised and guidance issued within 21 days. Dynamic operational learning is important, not only within the SFRS but also throughout all FRSs in the UK. The SFRS ensures that key learning is shared timeously.

The OA department are working to enhance their procedures in partnership with TED and they are currently mapping across aspects of the incident command assessment criteria to the OA form. This will generate practical evidence of ongoing incident command experience, which may eventually form part of the incident command competence assessment process. They are also working on developing a mobile application for use by FDOs, which will have OA information generation capability on it and which will automatically update a database, to cut down on work and quickly process information for action.

3.4.2 Debriefing arrangements

Debrief – ‘a process used for continual learning and improvement through reflection by sharing experiences, gathering information and developing future policy and procedures’²².

It is very apparent that debriefs are now culturally embedded in the SFRS and are carried out at the majority of incidents. It is pleasing to see that this culture is endorsed right at the beginning of a firefighter’s career, being regularly undertaken during the new entrants’ course. A debrief process flowchart can be found at appendix 1.

There are two types of debrief utilised by the SFRS:

- Hot debrief – This is an informal event carried out following an emergency incident or training session. This will happen regardless of whether a more formal, structured debrief will take place to support immediate learning. Any organisational learning will be reported through the OA process.
- Structured debrief – This is a formal, documented and auditable procedure, recognising achievements and shortcomings. It can be carried out face-to-face and/or electronically dependant on need. The outcomes from a structured debrief are collated and scrutinised by OA and actions generated will be shared throughout the SFRS, with partner agencies and with other FRSs, as required.

During our table-top analysis of the SFRS command and control documentation, we found good evidence of structured debriefs being implemented, leading to evidence of shared organisational learning, at both operational scenarios and in the OCs.

Staff think that the process has improved a lot, but it can still be improved upon. There is very little shared learning from smaller incidents, which could spot developing trends and influence training direction. It is reported that the organisation doesn’t learn quickly enough from incidents, with feedback from significant incidents taking too long to inform future practice, despite the introduction of the OA 21 process.

There also needs to be a better collation of, and access to, debriefs. Staff have difficulty finding relevant case studies whilst carrying out sector specific training. They state that actual incident scenarios would enhance training packages and assist in identifying areas of need in order to focus training. They feel that SharePoint would be a good repository for everyone to access and find relevant materials.

During our fieldwork we observed a FDO command seminar. It was centred on organisational learning and importantly, promoting a safe space to make mistakes and learn from them. This was emphasised throughout every presentation and all presentations were relevant and informative. Also highlighted was the fact that there may be occasions when a FDO is overexposed to incidents, during spate times. Staff were encouraged during the seminar to make sound judgements on their fitness for duty and to book off the run, if required.

²² SFRS GIN Operational and Event Debriefing version 1.1 (draft 13/02/2019)

The SFRS aims to carry out similar events on a more regular basis. We support this type of training as it embeds a consistent message across the Service. We also think that events like this should be opened up for attendance by Watch Commanders, who directly manage the vast majority of SFRS operational staff. This would promote a more inclusive and trusting environment to share wider operational learning.

It is reported to us that in some areas FDO duty groups have quarterly meetings, where officers are able to catch up on topical events and look at relevant case studies. Group Skype calls are also being utilised before a duty weekend, to discuss any existing issues or intelligence on current situations or events. It is reported to reinforce a good communication protocol and instil confidence in the support networks available to officers. These sessions highlight an area of good practice but unfortunately, are not mandatory. We would like to see this good practice formalised, to ensure it is carried out across all areas, supporting all officers.

Recommendations

- The SFRS should establish and promote a culture of carrying out incident ground operational assurance.
- The SFRS should review its debriefing process to:
 - Encourage the generation of shared learning from smaller incidents.
 - Allow a more efficient method of significant findings informing future practice.
 - Improve the storage and access of debrief documents.
- The SFRS should continue the good practice of FDO command seminars, but consider opening up access to Watch Commanders.
- The SFRS should consider implementing a more formal process of FDO duty group meetings, to support all officers.

3.5 Incident command training

Prior to the formation of the SFRS, incident command training was, in the main, standardised across all eight FRSs in Scotland. It is one of the areas now where training is locally and nationally standardised. The training itself is comprehensive, regular, structured and well attended by wholetime Commanders. This is not the case with RDS and Volunteer Commanders, as highlighted in our inspection report on *Training of the Scottish Fire and Rescue Service's retained duty system personnel*²³. Incident command training covers all aspects of the role map and incident command structure, supporting an emergency incident.

²³ <https://www.gov.scot/publications/hmfsi-inspection-report-training-scottish-fire-rescue-services-retained-duty-system-personnel/>

Incident command training is established around four levels:

- Incident Command Level 1 (ICL1) – Initial Incident Command Course
- Incident Command Level 2 (ICL2) – Intermediate Incident Command Course
- Incident Command Level 3 (ICL3) – Advanced Incident Command Course
- Incident Command Level 4 (ICL4) – Strategic Incident Command Course

The incident command development pathway can be found at Appendix 2

ICL1–3 courses are well developed and have been running in their present format for a number of years. ICL4 until recently, consisted of only an assessment. The Service recently completed a five day series of events for ICL4 Commanders in partnership with SMARTEU. The event examined large scale incidents, with pauses for input and learning. It looked at the Clutha bar and Rosepark care home incidents in particular. SMARTEU facilitated a CBRNE table top event with guest speakers who were Strategic Commanders involved in the Salisbury Novichok nerve agent incident. The final event involved a multi-storey flats fire, leading into Strategic Commander considerations. TED aim to review the whole course and build on it going forward. We see enhancing strategic command training as a positive step.

There is, to an extent, a degree of realism involved in the IC assessments as the scenarios are modelled on actual incidents. Training standards are adhered to, but there are mixed feelings as to whether the current format is the right approach to assessment. Some senior officers think that the current model lacks focus on learning and underlying decision-making, focusing too much on structure. Officers feel that it is an embarrassment to fail the assessment which is understandable, but ultimately, a wrong outlook. The SFRS has started to address this by stressing that training is a safe space to learn and make mistakes, as mentioned at the FDO command seminar. TED are looking to build in more problem solving and emphasising the decision-making process around incident command, to promote a better approach to training and learning.

The SFRS is planning to progress incident command learning and assessment digital platforms and is looking to go into partnership with Police Scotland. Police Scotland has introduced a cloud based system which can be accessed remotely to improve the learners' experience. We have previously endorsed a more cohesive approach to all aspects of emergency service working and commend this partnership approach.

A number of the Commanders we spoke to, believe that initial and refresher electronic assessments can be pre-learned and are more a test of recall and therefore not a true reflection of ability, with the same type of virtual incidents, incorporating different injects. Commanders also spoke against an assessment of competence being based on a single virtual incident, with no cognisance taken of actual ongoing operational performance. They commented that some officers learning styles aren't suited to the current format, with no cognisance taken of individual needs. They would prefer a blended approach with the addition of an active monitoring model, incorporating during incident OA performance, as an ongoing operational assessment of competence.

TED accept that OA can capture some parts of the incident command training and as a result, take some workload off the incident command training team. As mentioned above they are currently working with the OA department, looking at what aspects of the assessment criteria can be mapped across onto the during incident OA review form. The OA department have also requested to work closer with TED on incident command training courses to promote mutual goals. As a result of these developments, TED are also looking to introduce a reflective journal for Commanders. Fulfilling compliance criteria, could allow incident command accreditation to stretch beyond the current three year re-assessment window, again reducing the workload of the incident command training team.

Speaking to Commanders at all levels across Scotland, it is apparent that there is limited scope for practical training particularly at levels ICL2-4. All the Commanders we spoke to would like practical training, rather than simulation, introduced to IC training and assessment. TED are keen to introduce this aspect but the main barrier to its development is that it is resource intensive, and therefore difficult to sustain in a consistent and structured way. An idea proposed to achieve this is to bring FDO command groups into a training site on duty weekends, for practical training. However, emergency response cover would still have to be maintained and call outs would be disruptive to training. This may also be difficult, as at the time of our fieldwork, TED instructors were reportedly already working at capacity. As legacy terms and conditions are still in place for training staff, there are also differing working hours arrangements for trainers dependant on area, which may impact weekend working.

In addition to the incident command technical training packages already available on LCMS, FDOs now have a training for operational competence (TfOC) programme, to complete on a yearly basis. This enhances an individual's overall command and control training with the benefit of a clear, balanced maintenance phase programme. This training is mandatory, however at the time of inspection it is not audited and so no benchmark of its effectiveness is available.

As mentioned above, ICL1 training is not well attended by RDS and Volunteer Commanders. In our report *The Training of the Scottish Fire and Rescue Service's Retained Duty System Personnel*²⁴ we referenced a local area in which 49% of its RDS and Volunteer Commanders had not attended this course. Addressing this training deficiency was a recommendation of the report and also part of a recommendation in our report *Risk-based operational decision-making in the Scottish Fire and Rescue Service*²⁵ in 2014 – “The SFRS should continue to develop a national training needs analysis and national systems to allocate training and skills maintenance, with specific emphasis on training all front-line incident commanders to level 1, and identifying how skills maintenance will be provided to incident commanders at all levels.” It is disappointing to find that the issue is still problematic.

24 OP cit page 27

25 Op cit page 03

The SFRS is alternatively filling this gap by delivering an Incident Command Assessment (ICA). This is an electronic simulation assessment, held locally, carried out over the duration of a day, but containing no practical element. This is followed up by a two yearly, half day refresher. Commanders state that ICA input is good but for those RDS and Volunteer staff in fire stations which are not busy, a lot more development is required than the training on offer. The format needs to be improved, incorporating more in-depth input and a better mix of practical and technical training. There needs to be more local accountability, where a local area can run its own ICL1 courses dependant on local needs, whilst ensuring compliance with national standards. This would involve minimal investment for maximum gain.

OC staff do not have any incident command training. During discussions with staff, they felt that their understanding of operational requirements on the incident ground would be enhanced if they had access to bespoke incident command training. A UK model for this is currently being looked at by the NFCC incorporating a formal qualification.

3.5.1_Quality Assurance (QA) of Training

The system for incident command training is quality assured, to International Organization for Standardization (ISO) standard 9001²⁶, and relevant vocational qualifications attained are accredited by the Scottish Qualifications Authority²⁷. This external accreditation looks more at the process structure around training delivery, and the results to be achieved, than the quality of the training being delivered.

ICL1-4 training is delivered predominantly at the SFRS's national training centre, however it is planned to expand this to other sites. With this planned expansion, the requirement for a robust QA system for training delivery becomes more pressing. ICA training is delivered locally in every LSO area. There is an incident command practitioners' group which used to meet regularly but over the last two to three years has lost impetus. Likewise, incident command assessor updates which used to be published on a regular basis are now not apparent.

All training delivery whether national or local needs to be quality assured. With the size and diversity of Scotland, the SFRS needs to look at developing a system based on peer review and ensure an effective cross pollination of instructors, to promote consistency of delivery across all sites. At present it is an aspirational goal to train incident command instructors up to ICL3 level, in order for them to instruct on courses up to ICL3 and to assess on ICL1 courses when required. If this model continues, it should be spread across all sites for standardisation and resilience.

TED are reported to be developing a new QA strategy, which will concentrate more on training delivery. They are said to be developing an internal QA team to ensure adherence to National Operational Guidance (NOG) and national training standards. QA of training does not stand in isolation, the debrief and OA processes both need to feed into it, as well as the mentoring and monitoring programme, with outcomes collated and fed directly into national learning.

²⁶ <https://www.iso.org/iso-9001-quality-management.html>

²⁷ <https://www.sqa.org.uk/sqa/70972.html>

Ultimately, incident command as well as other aspects of training, subjects such as trauma management, marauding terror attacks (MTA), and public order, needs to evolve and be delivered, at least in part, jointly to benefit all three emergency services. A good example of this is the JOSIC course which combines training for all three blue light services. The success of this collaboration needs to be replicated and built upon. Critical decision-making, and gathering and analysing data need to be a lot more cohesive, for the delivery of risk critical information suitable for the practical use of all three emergency services. In support of this the SFRS currently has two embed officers within Scottish Multi-Agency Resilience, Training & Exercising Unit (SMARTEU) to assist in the collaboration of emergency services training and exercising.

Recommendations

- The SFRS should review its incident command training and assessment criteria to:
 - Introduce a practical training aspect, incorporating problem solving and critical decision-making under pressure.
 - Develop and conclude its work in mapping across elements of the incident command assessment with the incident ground operational assurance process.
 - Utilise a reflective journal template for ICs to provide evidence of incident command competence, with a view to extending re-accreditation timescales.
- The SFRS should train all its RDS and Volunteer Commanders to the level of ICL1 or develop an achievable alternative, incorporating practical training which safely meets training aims and requirements.
- The SFRS should develop a process of quality assurance to assess the effectiveness of its training delivery.
- The SFRS should pursue further opportunities for the collaboration of training with emergency service partners.

4 Conclusions

<p>4.1 IC policy and supporting information</p>	<p>It is good practice that the SFRS is continually modernising its operational guidance (albeit on occasion behind schedule), drawing on information to support change from many areas. In incident command specifically, it is positive that the Service will go ahead with the review of the policy and we will look on with interest at the outcomes generated, when we re-visit. It is important that the practical application of the policy is usable and inclusive so that all stakeholders invest in the process.</p> <p>The SFRS has invested a lot of time and resources in the generation and upkeep of its SOPs. They are very detailed and therefore, not necessarily user friendly, we support the proposed review.</p> <p>The SFRS has fulfilled our recommendation from the report Risk-Based Operational Decision-making in the Scottish Fire and Rescue Service²⁸ (November 2014) by creating an Operational Discretion policy. However, more work is required for its successful use. Organisational learning and procedural change also needs to result from its appropriate use. Consideration also needs to be given to policy impacts on OC staff or whether they require a bespoke solution.</p>
<p>4.2 Inter and intra operability, supporting the incident ground</p>	<p>It is very apparent that the SFRS has worked hard to gain the status of a trusted partner in working with resilience, industrial and wider community stakeholders. Relationships are well established, particularly in the central belt of Scotland where access is less problematic and we encountered good information sharing, training and exercising regimes. This is less apparent in remote rural locations where site operators would welcome more exposure from local SFRS resources. These types of activities should be uniform in approach and application and not predicated on geographical location.</p> <p>It is positive that the SCAF document provides a robust structure for pre-planned and response arrangements. However, it would be enhanced by a review, in consultation with wider resilience partners to develop a more integrated working document.</p> <p>Resilience is a key outward facing role in the SFRS, it is a complex function which requires sensitivity and continuity. There is a reputational risk for the organisation if not carried out appropriately. Governance and role sizing of this key area is paramount in order to support officers performing the role and the SFRS's partners.</p> <p>The JOSIC course highlights good practice, with good interaction between all emergency services. It is encouraging that the principles of JESIP are being embedded in both the FDO cadre and OC staff. Further learning needs to be focused on watch based Commanders, with some already believing that professional trust has been, to an extent, eroded from their role.</p> <p>The SFRS has taken a leading role in hosting and developing the CAR, however the CAR is described by partners as being in a precarious position, with very little forward momentum. This good work is in danger of being undone as the continuity of the project has stalled.</p> <p>The SFRS tac-ad is an evolving role at present. It is acknowledged as a skills gap by senior managers. Some aspects are fully implemented however many are not. Some FDOs find difficulty maintaining multiple specialist skills, where others have none, despite repeated requests for development.</p>

28 Op cit page 03

4.3 Incident command system

It is good practice that the three OCs, although having different operating systems are working closely to find common, best practice 'ways of working' to harmonise staff and processes further.

The introduction of the new command and control mobilising system will truly merge the three OCs into a national operations control, with shared best practice and improved resilience. However, the journey to get there has been complex, with five project managers in six years and challenging procurement and design specifications, resulting in delayed milestones. We are concerned that current operating systems, at the end of their lifespans are not operating efficiently. This coupled with competing demands from the supplier and little evidence of contingencies should significant systemic failures be encountered, could put the Service in a compromising position.

The SFRS is investing in technology to upgrade CSUs and where possible, standardise layouts and operating procedures. This shows good progress but a bespoke course and training requirements for operators has been slow to materialise affecting consistency of use. Staff would benefit from reciprocal training with the incident command training team. The staffing and operation of CSUs should be standardised.

OC staff are in favour of supporting the incident ground, by attending on-scene where possible, at larger protracted incidents. This option would enhance understanding between control operators and operational crews and improve the standard of messages passed on the incident ground, promoting good practice.

The SFRS is addressing the weakness identified in incident ground communications, through a commitment to procure new digital fireground radios. It should ensure a thorough design specification, evaluation and testing of concept is carried out, covering as wide a geographic sampling area as possible. SD end users should be fully integrated shareholders in the process. The Service should also ensure, in consultation with industrial partners, an adequate provision of intrinsically safe radios.

The difficulties encountered with the new call-sign system are reported from all areas. The Service should seek to improve understanding of the current system or design, in consultation, a more user friendly version to improve clarity.

Command support is important from the outset of every emergency incident. It is not a desirable position that command support packs are not standardised and their usage not consistent. The mixture of legacy and SFRS documentation will affect version control and could lead to important information or procedures being missed or incomplete. This is an organisational risk; standardised equipment should be introduced along with procedural guidance.

Decision logs are very important at all levels of incident response. It is good practice that the SFRS has implemented them through all layers of incident command. It is also positive that an agreed tri-service log is in use, with loggist courses available. Access to this course would benefit CSU staff who have to carry out the function as part of their role.

Usage of the official SFRS notebook is poor, particularly with station based Commanders. Staff need to be educated on the importance of logging decisions made on the incident ground and a clear rationale supporting that decision. This can be carried out post incident whilst reflecting on performance. Compliance with the GIN should be encouraged and effectively monitored.

Sectorisation and use of cordons are well established in the Service and in most cases, used effectively. Consideration needs to be given to larger incident cordon control and specifically multi-agency gateway control. This aspect requires a greater level of control, to accurately account for personnel in the hazard area and better highlight a joint understanding of risk, prior to entry. Smaller incident cordons can be on occasion notional and poorly marshalled. This would benefit from closer scrutiny, especially in remote rural areas.

4.4 Organisational learning

The SFRS is an organisation committed to continuous learning, with good systems in place to support this. The Service is now promoting an ethos of a safe space for learning, rather than combing over incidents to identify what went wrong. It needs to get to a position, where staff are comfortable discussing perceived poor decision-making, made at difficult times, under difficult circumstances.

The OA culture is improving, with robust scrutiny of larger operational incidents resulting in action plans for improvement. There is room for improvement in actual incident ground OA, which we find is not culturally embedded at present. The OA 21 process is an area of good practice and the department's work with TED to map across elements of the incident command assessment to the OA template should pay dividends in the future, aiding capacity.

Debriefs are now culturally embedded in the SFRS and carried out at the majority of incidents attended. Firefighters are exposed to this process at the beginning of their careers endorsing the principle from day one. We scrutinised evidence of structured debriefs from both operational incident grounds and the OC environment and our findings are predominantly positive. There is good evidence of shared learning and action plans to promote improvement. However, there are areas which could be improved upon:

- The process of feedback from significant incidents, takes too long to inform future practice.
- Very little shared learning from smaller incidents which could identify developing trends.
- Having collated all available learning, a more accessible repository needs to be found, so staff can easily access, locate and utilise information for training.

FDO duty group meetings are an example of good practice, said to reinforce a good communication protocol and instil confidence in the support networks available to officers. This good practice should be formalised, to ensure it is carried out across all areas, supporting all officers. Also, command seminars promote shared learning, we would advocate the continuation of this type of training. However, there would be a great benefit from opening up attendance to Watch Commanders, promoting a more inclusive learning environment.

4.5 Incident command training

Incident Command training is standardised across all areas of the SFRS. The current model is said to lack focus on underlying decision-making, focusing too much on structure. It lacks a practical element to the training which would add value to the operational role and improve decision-making under stress. The current model requires modernisation and we welcome the SFRS plan to explore enhanced digital platforms in partnership with Police Scotland. This is a positive step but does not address the practical training aspect which still requires development.

We look on with interest at the work TED are carrying out with OA, mapping across aspects of the incident command assessment criteria onto the incident ground OA form, reducing duplication of work. This coupled with the utilisation of a reflective journal for Commanders could pay dividends in safely extending incident command accreditation. We also support the implementation and development of Strategic Commander training and view the recent course as a positive step.

It is of concern that a recommendation from our report in 2014, to train all frontline ICs to ICL1 is still proving to be problematic. The SFRS needs to assess whether this is an attainable outcome and if not, develop an achievable alternative delivery model, which safely meets the training standard. Any alternative should incorporate practical and technical training with the ability to be delivered locally.

The SFRS has no QA of training delivery, although it is reported that TED are developing a QA team. Training delivery, especially over such a large area, needs assurance to provide comfort as to the consistency and quality of the delivery of the training standard. As the Service expands its training establishment footprint, it should consider a QA system incorporating peer review and ensure an effective cross pollination of instructors promoting consistency of delivery across all of its sites.

Training collaboration between all three emergency services is in its early stages. The JOSIC course is an area of good practice that will benefit integrated incident command and control for all three services and should be commended. The success of this partnership approach should be the foundation on which to build further training collaboration. This will further promote cohesive critical decision-making across all three emergency services.

5 Recommendations

5.1 IC policy and supporting information

1. The SFRS should, as part of the incident command policy review, reinvigorate fully inclusive governance structures for monitoring the practical application of the policy, to ensure stakeholder investment in the process.
2. A strategic direction of travel for SOPs should be agreed and a programme of modernisation implemented, addressing the concerns of users and stakeholders such as HS&W, to ensure appropriate coverage of subjects and ease of use.
3. Confidence in the use of the Operational Discretion Policy should continue to be promoted during incident command training and culturally through operational assurance and improved attitudes to its use.

5.2 Inter and intra operability, supporting the incident ground

4. The SFRS should review its resilience governance, including the SCAF document, in co-operation with wider resilience partners to enhance and promote, fully integrated partnership working.
5. The SFRS should reinvigorate strategic focus on the CAR and implement a fully representative working group to progress issues that are disenfranchising partners.
6. The phased implementation of the tac-ad role should be progressed covering all identified specialisms, ensuring an equitable spread of advisors across all duty groups and representative of risk in geographical areas.

5.3 Incident command system

7. The SFRS should ensure that the scrutiny of the management of the Command and Control Futures project, involves consideration of contingency planning for systemic failures in current control systems.
8. The SFRS should further develop a formal, bespoke course and training requirements, for CSU operators. The layout, staffing and operation of these units should be consistent.
9. Consideration should be given to OC staff supporting CSU staff, on location, at larger protracted incidents when availability or opportunity allows.
10. The UIG for the procurement of new digital fireground radios should include Scotland wide collaboration with SD end users ensuring representation from urban, rural and remote rural station groups. Adequate provision of intrinsically safe sets should be incorporated into the project.
11. The SFRS should evaluate the understanding and ease of use of the current call-sign format and if required devise, in consultation with end users, revised call-signs.

12. A standardised SFRS incident command pack should be introduced as soon as possible along with a comprehensive training package in its use, with particular additional support provided to remote rural areas on its introduction.
13. The SFRS should monitor compliance with the GIN Official Notebook, potentially through the station audit process, and take remedial action when deficiencies are found.

5.4 Organisational learning

14. The SFRS should establish and promote a culture of carrying out incident ground operational assurance.
15. The SFRS should review its debriefing process to:
 - Encourage the generation of shared learning from smaller incidents.
 - Allow a more efficient method of significant findings informing future practice.
 - Improve the storage and access of debrief documents.
16. The SFRS should continue the good practice of FDO command seminars, but consider opening up access to Watch Commanders.
17. The SFRS should consider implementing a more formal process of FDO duty group meetings, to support all officers.

5.5 Incident command training

18. The SFRS should review its incident command training and assessment criteria to:
 - Introduce a practical training aspect, incorporating problem solving and critical decision-making under pressure.
 - Develop and conclude its work in mapping across elements of the incident command assessment with the incident ground operational assurance process.
 - Utilise a reflective journal template for ICs to provide evidence of incident command competence, with a view to extending re-accreditation timescales.
19. The SFRS should train all its RDS and Volunteer Commanders to the level of ICL1 or develop an achievable alternative, incorporating practical training which safely meets training aims and requirements.
20. The SFRS should develop a process of quality assurance to assess the effectiveness of its training delivery.
21. The SFRS should pursue further opportunities for the collaboration of training with emergency service partners.

6 Glossary and abbreviations

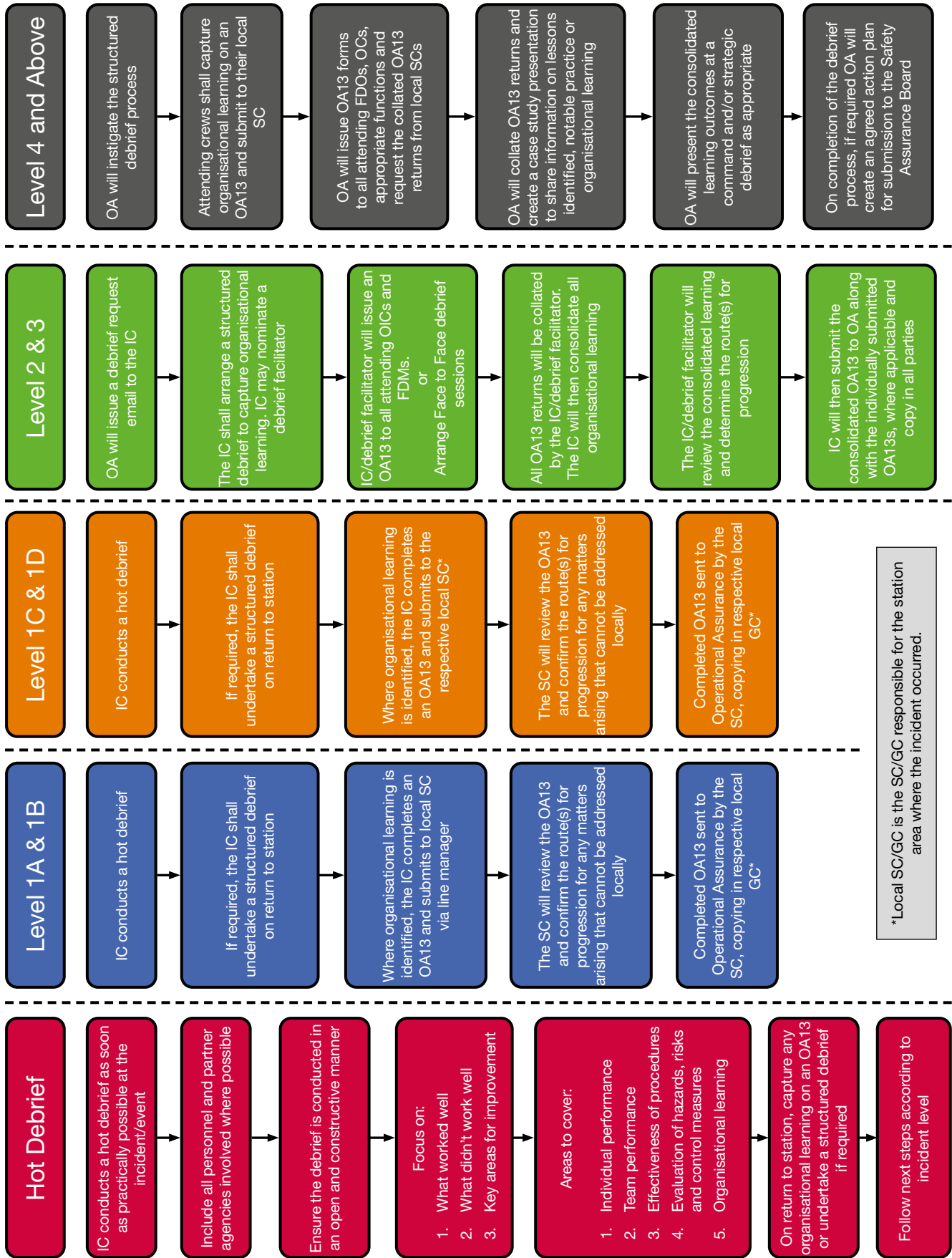
An explanation of abbreviations used can be found in the table below.

(During this thematic review the SFRS changed the nomenclature of its operational command roles, moving from manager to commander e.g. Area Manager became Area Commander. The glossary below depicts the up-to-date role names).

AC	Area Commander
ARA	Analytical Risk Assessment
CAR	Community Asset Register
CCF	Command and Control Futures Project
CCO	Civil Contingency Officer
COMAH	Control of Major Accident Hazards
CSU	Command Support Unit
DACO	Deputy Assistant Chief Officer
DRA	Dynamic Risk Assessment
FBU	Fire Brigades Union
FDO	Flexi Duty Officer
FRS	Fire and Rescue Service
GC	Group Commander
HAZMAT	Hazardous Materials
HMFSI	Her Majesty's Fire Service Inspectorate
H&S	Health and Safety
HS&W	Health Safety and Wellbeing
IC	Incident Commander
ICA	Incident Command Assessment
ICS	Incident Command System
ICT	Information and Communication Technologies
IEM	Integrated Emergency Management

ISO	International Organization for Standardization
JESIP	Joint Emergency Services Interoperability Programme
JOSIC	Joint On Scene Incident Command
LCMS	Learning Content Management System
NFCC	National Fire Chiefs Council – is a professional body that drives collective improvement and development throughout the UK FRSs.
NRAT	National Resilience Assurance Team – supports the deployment of National Resilience assets in England and Wales
OA	Operational Assurance
OC	Operations Control
PDA	Pre-Determined Attendance
R&R	Response and Resilience: operational planning to ensure the right resources are available at the right time and in the right locations.
SC	Station Commander
ScoRDS	Scottish Resilience Development Service – exists to enhance knowledge, skills and behaviours amongst Civil Contingency Responders in Scotland in order to ensure effective resilience planning, response and recovery.
SD	Service Delivery
SDA	Service Delivery Area
SFRS	Scottish Fire and Rescue Service
SG	Scottish Government
SLT	Strategic Leadership Team
SMARTEU	Scottish Multi-Agency Resilience Training and Exercise Unit
SOP	Standard Operating Procedure
Tac-ad	Tactical advisor
TED	Training and Employee Development
TfOC	Training for Operational Competence
UIG	User Intelligence Group
WC	Watch Commander
2005 Act	The Fire (Scotland) Act 2005

Appendix 1

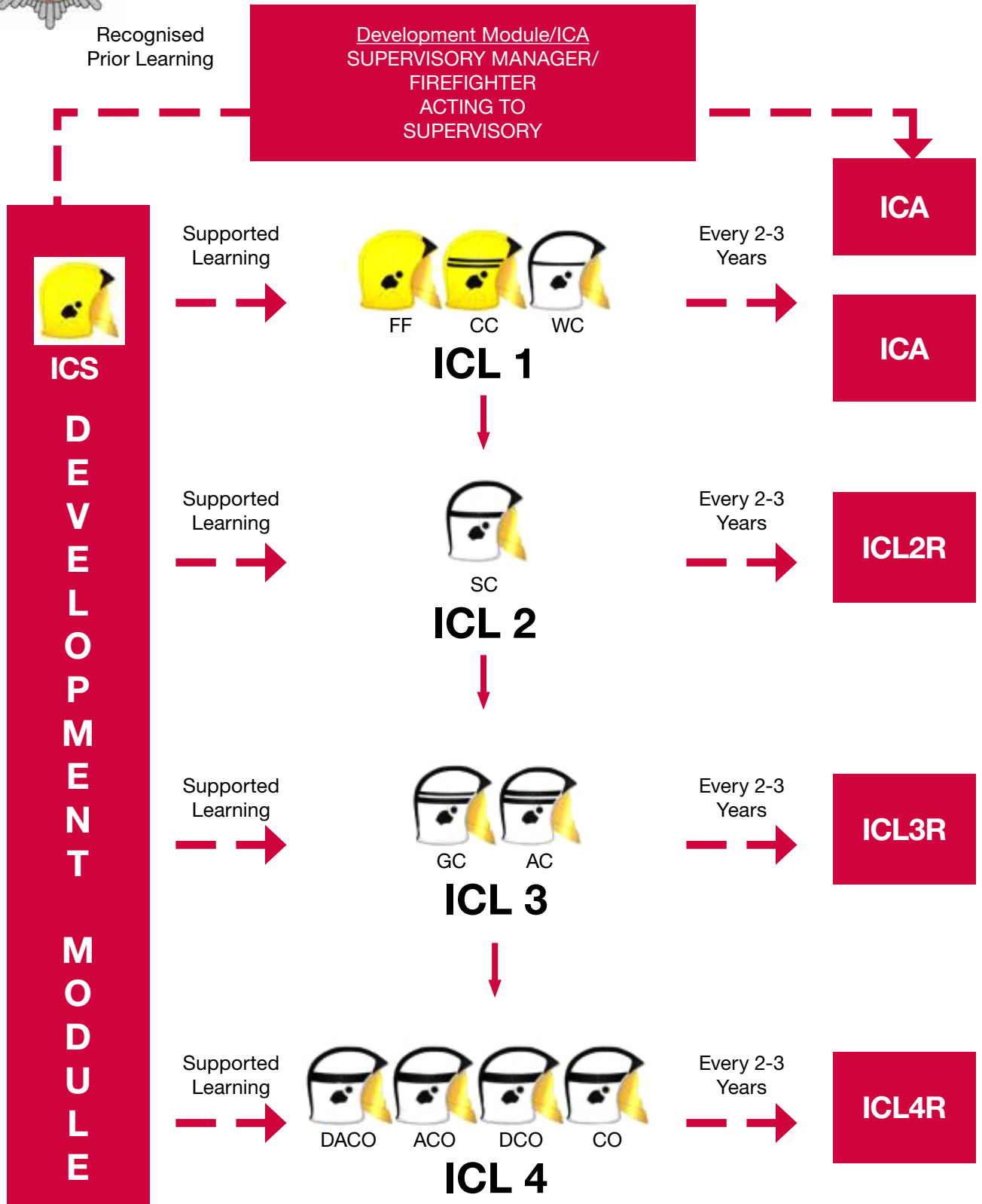


*Local SC/GC is the SC/GC responsible for the station area where the incident occurred.

Appendix 2



Incident Command Development Pathway



Appendix 3

About HM Fire Service Inspectorate

Her Majesty's Fire Service Inspectorate in Scotland (HMFSI) is a body that operates within, but independently of, the Scottish Government (SG). Inspectors have the scrutiny powers specified in section 43B of the Act. These include inquiring into the state and efficiency of the SFRS, its compliance with Best Value, and the manner in which it is carrying out its functions.

HMFSI Inspectors may, in carrying out inspections, assess whether the SFRS is complying with its duty to secure Best Value and continuous improvement. If necessary, Inspectors can be directed by Scottish Ministers to look into anything relating to the SFRS as they consider appropriate.

We also have an established role in providing professional advice and guidance on the emergency response, legislation and education in relation to the Fire and Rescue Service in Scotland.

Our powers give latitude to investigate areas we consider necessary or expedient for the purposes of, or in connection with, the carrying out of our functions:

- The SFRS must provide us with such assistance and co-operation as we may require to enable us to carry out our functions.
- When we publish a report, the SFRS must also have regard to what we have found and take such measures, if any, as it thinks fit.
- Where our report identifies that the SFRS is not efficient or effective (or Best Value not secured), or will, unless remedial measures are taken, cease to be efficient or effective, Scottish Ministers may direct the Scottish Fire and Rescue Service to take such measures as may be required. The SFRS must comply with any direction given.

We work with other inspectorates and agencies across the public sector and co-ordinate our activities to reduce the burden of inspection and avoid unnecessary duplication.

We aim to add value and strengthen public confidence in the SFRS and do this through independent scrutiny and evidence-led reporting about what we find. Where we make recommendations in a report, we will follow them up to assess the level of progress. We will aim to identify and promote good practice that can be applied across Scotland.

Our approach is to support the SFRS to deliver services that are high quality, continually improving, effective and responsive to local and national needs. The terms of reference for inspections are consulted upon and agreed with parties that the Chief Inspector deems relevant.



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