

RESPONSE & RESILIENCE

REVIEW OF SPECIALIST EQUIPMENT

FINAL REPORT



SCOTTISH
FIRE AND RESCUE SERVICE

Working together for a safer Scotland

Draft

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1. Executive Summary

The Scottish Fire and Rescue Service inherited a wide array of specialist equipment from the eight legacy fire and rescue services in Scotland. As the demands on services progressively increased over the years, the deployment of additional equipment was undertaken on a local basis, using existing geographical boundaries without any real attempts at mutual aid or cross-border cooperation. A clear imperative to review this position has resulted in the publication of this report, which recommends a range of changes designed to enhance service delivery from a more strategic viewpoint.

From an initial mandate of improving equity of access to fire and rescue resources and delivering efficiencies, this review makes a number of recommendations which will ensure a more balanced disposition of specialist resources across Scotland, based on risk and activity. These improvements will see some resources increased in number where gaps have been identified; or decreased in number where clear overlap and unnecessary over-provision exists.

It is worthy of note that the existing position overstates the actual capabilities across Scotland. Many examples have been identified where the resources do not meet the desired or necessary standard, either in terms of equipment or skills training. A key objective of this review is to produce a standardised approach to each specialist attribute, ensuring that the declared ability is in fact accurate and reliable; and more importantly, safe and effective.

In the vital areas of water rescue and line rescue, additional teams will be created to provide the necessary balance and geographical spread of these resources. Equally important as the simple increase in numbers, a standard delivery model for each resource will see great improvements in training, standard of equipment, stowage of equipment and deployment of resources.

Some current practices, such as the stowage of rescue boats deflated and carried on a range of vehicles not specifically designed for the purpose, will cease. The loss of vital minutes in a rescue environment to inflate and equip boats is unacceptable and must be stopped as quickly as possible.

In areas where some rationalisation is recommended such as Urban Search and Rescue, Mass Decontamination or Command and Control vehicles, reassurances are given that, not only is this a safe and efficient way forward, but that it will result in an improved service with dedicated resources being delivered competently and by better trained and better prepared crews. These recommendations have been made following close consultation with appropriate stakeholders such as the Scottish Government, local authorities and representative bodies. Our ability to declare assets available for UK-wide support at major incidents will actually be enhanced by these measures, as many of our existing resources do not currently meet the required standard.

Unnecessary overburdening of some stations will be removed, with an improved standard of training delivered in all instances. This welcome approach will reduce risk to communities and firefighters alike, by allowing crews to concentrate on a manageable range of equipment and procedures, ensuring confidence and competence in the use of complex equipment.

Acceptance and implementation of these recommendations is key to delivering an efficient and effective model of specialist rescue resources across Scotland; identifying and addressing the substantial risks which exist, and providing an appropriate level of cover for each of our major cities where the perceived risk is greatest. This forms a fundamental step in the creation of a single fire and rescue service for Scotland, the safety of communities being addressed without historical boundaries restricting service delivery.



KEEP BACK
10 METRES

HEAVY
RESCUE

Draft

Emergency one

JACK HERE

2. Introduction

The Scottish Fire and Rescue Service (SFRS) delivers an emergency service within a complex framework of law, regulation and operational guidance. As the role of the fire service has extended over the years beyond firefighting, the range of activities undertaken has continued to expand and widen. Correspondingly, the range of equipment and skills training required has increased greatly.

Prior to the creation of the single national service, all 8 legacy Scottish fire and rescue services had deployed a range of specialist resources based on their individual assessment of risk as described within their Integrated Risk Management Plans. This historical deployment requires to be reviewed to ensure it conforms to the needs of community and firefighter safety across Scotland now that the historical geographical boundaries have been removed.

This review commenced in May 2013, with the aims of delivering on the SFRS' key objectives of delivering operational services efficiently and equitably across the communities of Scotland. Recognising the wide range of specialist resources involved, this review was divided into 16 separate strands, namely:

- Water Rescue
- Offshore Firefighting and Support
- Line Rescue
- High Reach
- Rescue Pump
- Heavy Rescue
- Urban Search and Rescue (USAR)
- High Volume Pump (HVP)
- Mass Decontamination (MD)
- Detection, Identification and Monitoring (DIM)
- Hazardous Materials
- Prime Mover Strategy
- Command and Control
- 4x4 Vehicle
- Wildfire
- Incident Logistical Support

All individual reports were collated at the end of 2013, with a 2 day workshop involving staff from the Response and Resilience Directorate of SFRS and the Fire Brigades Union. This final report presents the outcome of this work, and sets the strategy for implementation of the final delivery of specialist fire and rescue equipment and resources across Scotland. Final timelines for delivery of this project are discussed in a later section, based on a range of limitations including the requirement to procure and deploy equipment, and train staff accordingly.

A number of key principles were acknowledged in the development of the review, notably:

- The underlying expectation was of delivering improved outcomes for Scotland's communities, with greater equity of access to a standardised range of resources
- This review, however, is limited only to the Scottish mainland. Requirements for the range of inhabited islands will be reviewed independently.
- Recognition of the fact that 'Resilience' assets (USAR, HVP, MD, DIM) are not devolved matters to Scottish Government, therefore cognisance taken of our contribution to UK security. Ongoing national reviews of Resilience assets are acknowledged and considered in this report where changes are known
- An imperative to assure competency in our crews by reducing the present overburdening of certain stations. In this regard, wherever possible only wholetime crews will be utilised due to the availability of sufficient training time
- In addition to the restrictions encountered through training requirements, stations will be selected based on their strategic locations and the surrounding risk profile
- Where services can be delivered by partner agencies, this is reflected in the future approach recommended. SFRS is developing a register of such assets which will greatly assist in mitigating risk
- Cost, whilst considered within the individual resource reviews, cannot be fully developed within this report as the full implications of training and crewing arrangements will become apparent as the project to implement these changes progresses. Capital costs for appliance and equipment replacement will be factors in the final delivery timeline of these changes

3. Objectives

This review will assist in achieving the ultimate aims and objectives of the SFRS. Ultimately these aims are to work towards the Scottish Government's Performance Management Framework and principally those National Outcomes to which we are most closely aligned.

The Fire and Rescue Framework 2013 outlines more clearly how we as a service should address these ultimate goals, by setting out 58 priorities under the headings of partnership working, prevention, protection and response. This report aims to address a number of the priorities set against our response service.

In reviewing the disposition and deployment of specialist resources, SFRS recognises a statutory duty to reduce the risks to our communities whilst delivering Best Value; making certain that the communities we serve receive the best possible service, and at the same time providing the greatest possible value for money. The risk management approach to ensuring this, under the heading of Integrated Risk Management Planning, requires us to identify the risks to the community, undertake a process to prioritise these risks, and ensure an appropriate blend and distribution of capabilities to address them.



A specific priority in this regard is set out in Chapter 3 of the Fire and Rescue Framework, which requires more equal access to specialist resources and national capacity. Within this requirement, we have been given a mandate to clarify and communicate the parameters of our operational functions with local community partners, whilst explicitly recognising the need to adapt and improvise in unusual and difficult to define circumstances. A clear expectation is stated that areas with similar risk profiles should normally have similar provision, and that SFRS should develop a leading role in specialist rescue, engaging with the other emergency services and relevant voluntary groups to understand and manage the risk across Scotland.

In attempting to achieve all of these objectives, the twin principles of ensuring both community and firefighter safety will also be at the forefront of our concerns. Improving equality of access has a clear impact on community safety, whilst also affecting firefighter safety. Existing arrangements see specialist resources deployed on historical legacy service grounds. These were predicated on a positive desire to ensure all services were available to all areas, but restricted by geographical boundaries. This had the result of some stations across Scotland requiring to be resourced with several specialist functions simultaneously, potentially compromising the ability of crews to devote the necessary training time to be entirely competent in the necessary procedures and use of the full range of equipment associated with these disciplines. Removal of these boundaries and ensuring a better distribution of these resources will enhance the safety of the firefighters undertaking these specialist rescues, and the communities who require them.



4. Special Rescue Activity in Scotland

Scotland has a land mass of approximately 31,510 square miles, and a population of more than 5.2 million people. Our population is as diverse in its distribution as it is in its culture, with the Central Belt of Scotland being very densely populated, whilst some Highland communities are amongst the most remote in Europe. There are 96 inhabited islands, 34,000 miles of road network, 1520 miles of railway, 3 major international airports and an incalculable number of lochs and other inland waterways.

This varied profile means that the fire and rescue service must prepare for and respond to a significant number of different types of emergency. Recent changes to legislation have given the SFRS additional statutory duties to deal with certain types of emergency other than those that are fire related.

Any incident that is not specifically fire related is known as a 'special service', and these include water rescue, line rescue and confined space rescue, as well as all types of transport incidents, responding to terrorist threats and many more specialist rescue types of incident. In a typical year, the SFRS will attend more than 90,000 incidents in total, with at least 10% of these incidents being recorded as special services. Ensuring equitable access to specialist rescue resources for the communities of Scotland is challenging, and this review of specialist equipment seeks to achieve this goal as far as possible.

Partner Agencies

In making recommendations regarding changes to the scale or distribution of resources in Scotland, cognisance is taken of partner agencies and voluntary organisations that also provide some rescue capability.

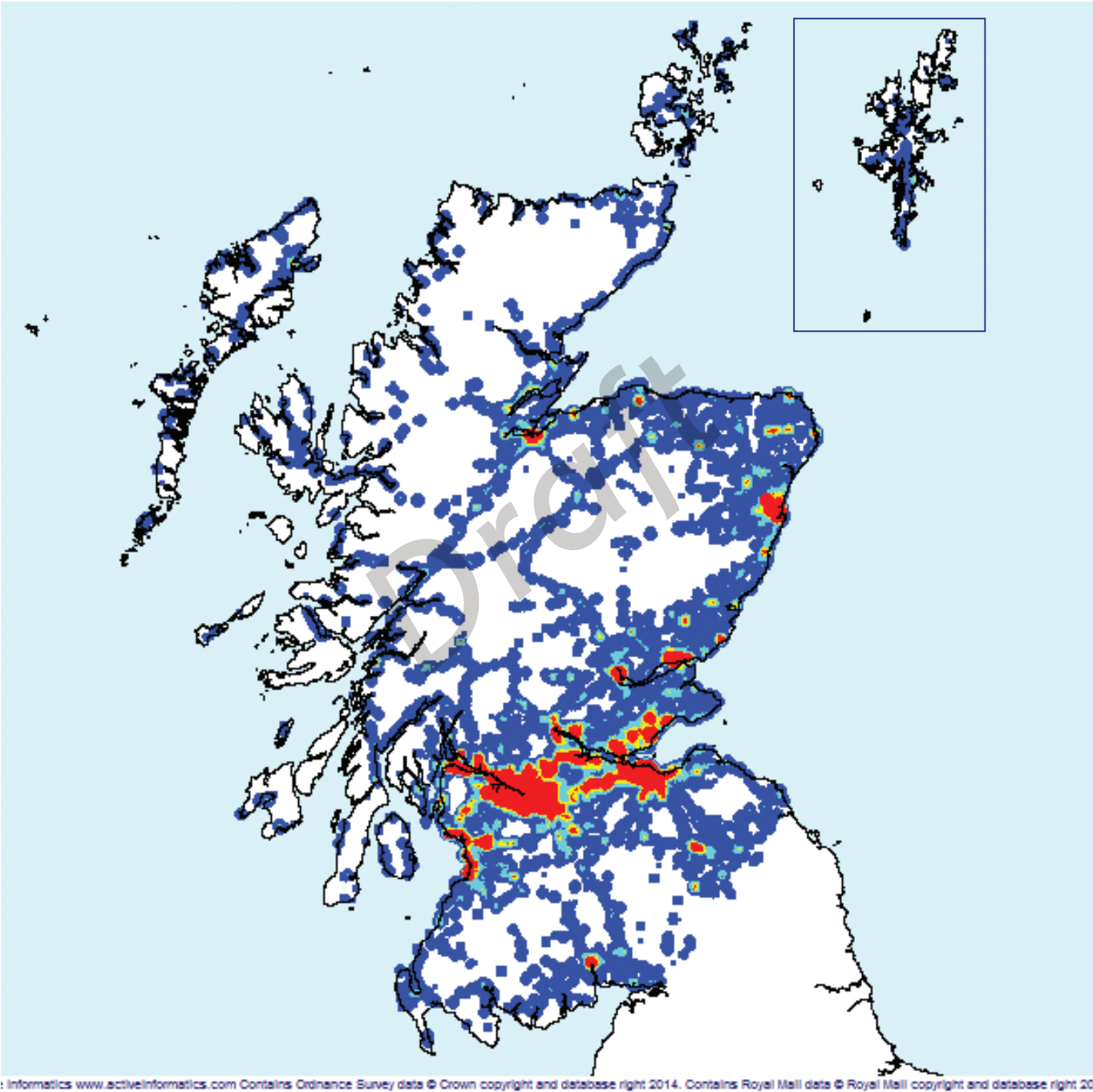
Legacy arrangements demonstrate a wide range of partnership working between SFRS and major partner agencies such as Police Scotland, the Scottish Ambulance Service, the Maritime and Coastguard Agency and Local Authorities Emergency Planning. A number of formal agreements and arrangements are already in place to share premises such as at Greenock and Kinloch Rannoch, and work is currently ongoing elsewhere across the SFRS

to investigate opportunities to progress and extend these arrangements.

Complementing these arrangements, a number of formal agreements made under 'Memoranda of Understanding' or 'Service Level Agreements'; as well as a large number of less formal and local agreements currently exist to engage the services of voluntary or private sector partners where there are recognised attributes and abilities available to provide additional or specific expertise and support. Examples of these include arrangements with Lochaber Mountain Rescue, Trossachs Search and Rescue, the Salvation Army and Rescue Three (water rescue on the River Tay).

In order to secure a consistent and transparent approach to the provision of additional and expert support, the SFRS is creating a comprehensive register of accredited specialist services across Scotland. This register, once fully operational by early 2015, will give a central database of willing and suitable providers of specialist rescue, welfare, communications, transport and supporting services; detailing the organisations' names, locations, capabilities and limitations. The database will be designed to provide a searchable register of assets without creating an administrative burden which outweighs its benefits.

This register will assist us to deliver the best and most efficient rescue capability possible, utilising local knowledge and skills whilst helping to avoid unnecessary duplication. Given the significant challenges posed by the geographical diversity of the Scottish mainland and inhabited islands, this development will assist in meeting the objectives of the SFRS, the Scottish Government and Her Majesty's Inspectorate of Fire and Rescue; by ensuring the most equitable access possible to fire and rescue and specialist resources for all communities across Scotland.



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Key	Incidents per 1km square
Dark Blue	0 - 19.9
Light Blue	20 - 29.9
Yellow	40 - 59.9
Red	60 and over

This diagram details special service incident activity across Scotland over a period of three years (2010/11 – 2012/13) As can be seen from the key, the colour of the shaded areas are coded to represent the number of special service incidents per 1km square over the three year period.

5. Existing Provision of Special Rescue Resources

The provision of special rescue resources in Scotland has evolved in an abstract manner over several decades. Up until the introduction of the Fire (Scotland) Act in 2005, there was not even a statutory duty for fire services to attend road traffic collisions, let alone perform water rescues or deal with chemical incidents or building collapses. Where there is no statutory requirement, there is no funding, and the initial introduction of rescue equipment was achieved from within existing fire service budgets and with minimal guidance available in terms of the standardisation of equipment or capabilities to be achieved.

In addition, prior to the launch of the Scottish Fire and Rescue Service (SFRS) in 2013, individual Chief Officers had a specific responsibility to address risk within their own areas of responsibility, and had understandable reluctance to rely on resources from neighbouring services to provide an emergency response that was not within their direct control.

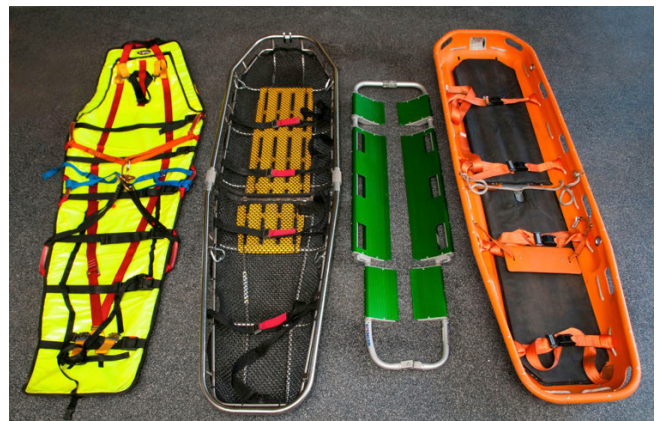
The result of these legacy arrangements is a collection of special resources across Scotland that differ greatly in terms of the type and standard of equipment provided, the crewing arrangements, training requirements and mobilising arrangements. The strategic location of these

resources is also flawed and inconsistent when looked at in a Scotland-wide context, with similar resources often located in relatively close proximity to one another, making other areas of Scotland appear under-resourced by comparison. The lack of standardisation also means that supposedly similar resources from different legacy services are often completely incompatible with one another if required to operate jointly at a single incident.

The desire for legacy fire services to be fully self-contained in terms of special rescue operations has placed a very heavy burden on certain stations, particularly those that are the only wholetime station within a legacy area. Inverness for instance, has water rescue, USAR, foam, mass decontamination, heavy rescue, hazardous materials and command & control resources as well as a high reach appliance within one station. With only a finite number of training hours available per person per year, it is impossible to maintain genuine competency in all of these areas. Put in perspective, there are approximately 300 dedicated training hours available per annum to a wholetime firefighter. It takes 222 hours of training to maintain basic competency in the role of a firefighter, and a further 80 hours just to maintain competence in water rescue, before going on to look at the other attributes that each firefighter must train for.



Line rescue equipment



Using the example of Inverness, it is impossible to maintain competency in such a wide range of skills, and any gaps in training or competency have potential serious implications for firefighter and community safety. There are additional challenges to maintaining a very high number of special resources within a single station. Inverness fire station has 16 different vehicles operating from this one central point, in an attempt to provide a complete fire and rescue response for the Highland region, an area of more than 11,000 square miles. In addition to the training burden associated with each resource, there is a significant testing and maintenance regime that accompanies each vehicle, each item of clothing and every item of equipment.

Another legacy issue associated with special resources is the great variety of equipment that has been procured by each of the legacy services. Budget limitations, and in some cases limited capacity for research and development, have resulted in some equipment being below an acceptable standard for a national fire and rescue service. One example of this is the various types of boat provided for water rescue, and indeed the methods used to mobilise and deploy such resources. In the legacy Dumfries and Galloway area, rigid inflatable boats are stored in a deflated state, and mobilised within plastic containers attached to a gantry system on top of a rescue pump. The outboard motor is located within a separate locker on the appliance, and this arrangement precludes carriage of a 13.5 metre ladder, a standard item of life saving equipment.

