



HM Fire Service Inspectorate

Managing Automatic Fire Signals



Integrity, Objectivity, and Fairness.

Acknowledgements

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The Inspection team members were:

Steven Torrie QFSM
Paul Considine
Graeme Fraser
Brian McKenzie

Kirsty Bosley, Principal Analyst, Justice Analytical Services, provided the team with analytical support and Tracey McKenzie, SFRS Control Manager, provided technical support to the team.

A Quality Assurance Panel helped us by challenging a draft of the report. The team was:

Peter Holland CBE, Chief Fire and Rescue Adviser for England
Des Tidbury QFSM, Chief Fire and Rescue Adviser to the Welsh Government
Mark McCabe, Audit Scotland

All the members of the inspection team contributed to the development of this report and the quality assurance panel 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.

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To Contact Us

Telephone +44 (0) 131 244 3275
Email HMFSI@gov.scot
Website www.gov.scot/fireinspectorate

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1 Introduction and background

In this report we discuss how the Scottish Fire and Rescue Service (SFRS) manages calls originating from automatic fire alarm (AFA) systems by, for example, working with companies and occupiers to reduce the number of actuations or calls made to the Service. These calls pose a particular challenge¹ as it is well-documented both in the UK and overseas that between 95 and 98% of such calls are false alarms – nearly 25,000, in buildings other than in dwellings, in Scotland in 2013-14. We also look at associated policies relating to the number of fire appliances sent to a call and whether or not they travel under ‘blue light’ conditions (which is sometimes referred to as the ‘speed and weight of response’).

We use the term ‘automatic fire signal’ to discuss our area of interest – recognising that a number of related or alternative terms are also used – and ‘unwanted fire alarm signal’ (UFAS) to refer to the 98% of such calls that are false alarms in Scotland.

The Scottish Fire and Rescue Service inherited a range of policies from its predecessor organisations relating to how automatic fire signals are managed and responded to. The variation in policy which the Service inherited was particularly large so, as a consequence, the Service has had a major challenge in introducing consistency and ensuring that an appropriate response is made to calls, particularly from high risk premises. To add to this challenge, we understand that the Service inherited specific response arrangements which did not obviously follow on from individual premises’ risk assessments.

In recognition of the scale of this work, we start by commending the Service for the progress it has made to this point and offer the following comments and recommendations as a contribution to the continuous improvement of policy and practice.

Comments and recommendations

1. We support the Service’s ambition to drive down the receipt of unwanted calls and note the pro-active steps promoted with the introduction of the SFRS Unwanted Fire Alarm Signals (UFAS) Incident Policy and Procedure. The aims and aspirations of the policy are laudable. However, we are not confident that the policy, as it is currently set out and is being implemented, will deliver any significant reduction in calls received or responded to, or ‘blue light’ journeys made, within a reasonable timescale.
2. We have studied the policy and procedure documents and although the intent is clear, we found it difficult to understand the detail. Our interviews with staff in a number of locations suggests that different interpretations have been, and are, taking place. **We think that the suite of policy and procedure documents is unnecessarily complex and recommend a significant simplification in the next iteration.** Within this report, we offer some suggestions as to how policy and procedures might be simplified whilst still achieving the intended aims.

¹ The nature and scale of the challenge was highlighted most recently by the Auditor General for Scotland in her May 2015 report *The Scottish Fire and Rescue Service* http://www.audit-scotland.gov.uk/docs/central/2015/nr_150521_fire_rescue.pdf

3. The Scottish Fire and Rescue Service policy allows for a reduced attendance to AFA calls in some circumstances, but not where the call has been received through an alarm receiving centre. **We recommend that a consistent PDA² should be planned for calls originating from automatic fire signals where the cause of actuation is unknown, regardless of how that call is transmitted to the SFRS.**
4. We welcome the partnership research project which the Scottish Fire and Rescue Service announced in November 2014 and we welcome the Scottish Fire and Rescue Service undertaking an impact assessment of its policy changes in tandem with this work which should add greatly to learning from experience. The issue of unwanted fire alarm signals is not a problem that the Service can solve in isolation. The fact that the Service has engaged so widely with stakeholders is to be commended. We believe that the Fire Sector has a role to play in respect to finding technical solutions to this long standing issue.
5. AFA systems offer potential benefits providing an early alarm of fire, but this needs to be balanced against the low probability that an AFA call is an actual emergency incident, and the risks and costs associated with responding. These risks have been weighed up in published research sponsored by the UK Department for Communities and Local Government (DCLG), and an internal report to the SFRS by Mott MacDonald. Both of those documents suggest that, for many premises, risk is optimally balanced against benefit by a single vehicle response to AFA calls, with two vehicles being dispatched to calls involving a sleeping risk. **We recommend that the SFRS reflects on these reports and the risk/benefit balance suggested in them; and, if it intends to continue to take a different approach, it should explain why.**
6. To support ongoing improvements in the management of automatic fire signals, and allow for the success of the UFAS policy and procedures to be measured, **we recommend that the Board and Strategic Leadership Team of the Scottish Fire and Rescue Service consider numerical targets for a reduction in calls responded to which have been received from automatic systems, and the number of 'blue light' journeys made by fire appliances to automatic fire signals.**

² PDA = pre-determined attendance: SFRS computerised control systems automatically nominate how many fire appliances are sent when a fire call is received, based on Service policy on the nature of the call and the nature of the premises involved.

2 About the inspection

Her Majesty's Fire Service Inspectorate in Scotland is a body that operates within, but independently of, the Scottish Government. Inspectors have the scrutiny powers specified in section 43B of the 2005 Act. These include inquiring into the state and efficiency of SFRS, its compliance with Best Value, and the manner in which it is carrying out its functions.

The purpose of this inspection is:

To consider in detail the policies and procedures which the Scottish Fire and Rescue Service is using to manage and respond to calls generated by automatic systems and, in particular:

- *To examine how the SFRS is working with building owners, occupiers, and alarm receiving centre operators to reduce false alarm calls;*
- *To assess the extent to which the SFRS is balancing the risks and benefits of how it attends calls generated by automatic systems;*
- *To examine how the SFRS determines the speed and weight of response to automatic fire calls and how, and to what extent, the Service varies pre-determined attendance as a result of experience, time of day, or any other relevant factor.*

An inquiry by the Inspectorate can be self-directed or can be subject to direction by Scottish Ministers. This inquiry into the Scottish Fire and Rescue Service is self-directed by the Chief Inspector. The decision to carry out this inspection was intelligence-led, influenced by the significant proportion of SFRS workload that automatic calls represent, and our interest in the risks associated with this area.

Methodology

This inspection has largely been carried out on the basis of a desk top data review, complemented by a number of face-to-face interviews with SFRS staff who are responsible for the development of the new policy and its implementation.

We also met with members of the SFRS Board to better understand their involvement with the introduction of the new policy, and with service delivery staff responsible for putting it into practice, and made contact with members of the SFRS Business Engagement Forum to seek comment and feedback.

3 Discussion

Many of the fire warning systems fitted in buildings incorporate automatic fire detection. A fire warning system with automatic fire detection can provide an early warning of fire and enhance the safety of building occupants. There is also benefit for property owners in that automatically detected fires tend to be discovered early, and for the fire and rescue service they generally require less effort to extinguish.

However, the large majority of automatic fire alarm calls received by the Service are false alarms. There are so many false alarm calls from AFA systems that responding to them is a major draw on SFRS resources (albeit that, overall, operational response is a reducing part of fire and rescue service work and for wholtime staff in particular it draws on a low percentage of their capacity). These calls represent a cost to both the public and private purse, have an impact on the environment, divert SFRS resources away from attending actual incidents and from undertaking other work, and introduce risks to firefighters and the general public due to increased fire appliance journeys. 'Blue light' fire appliance journeys can and do lead to vehicle accidents and the injury and death of firefighters and members of the public.

Research, analysis and policies which are designed to reduce calls received and adjust the speed and weight of response to these calls are not new. Amongst the range of guidance available is the Communities and Local Government publication *Costs and benefits of alternative responses to Automatic Fire Alarms*, published in 2008³; a January 2015 report⁴ by the Welsh Government encouraging action, and 2014 guidance produced by the Chief Fire Officers' Association⁵ which, amongst other things, draws attention to changes to the law in England and Wales which allow for charges to be levied, under certain circumstances, where false alarm calls have been received as a result of automatic equipment actuating.

The scale of the problem

An analysis of Scottish incident data over the last five years has shown that only around 2 per cent of calls initiated by Automatic Fire Alarms are to an actual fire related event. These figures are consistent with experience across the UK and Australasia.

Provisional figures for 2013-14⁶ indicate that SFRS responded to 47,187 fire related false alarms and three quarters of these false alarms were 'due to apparatus'⁷ calls. The majority of these, 24,527, occurred in premises classed as 'other buildings', i.e. not dwellings. This represents a slight reduction on the previous year's figure of 24,641. In total, false alarms account for 56 per cent of all incidents attended by the Service.

³ *Costs and benefits of alternative responses to Automatic Fire Alarms: Fire Research Series 2/2008*, CLG ISBN: 978-1-8511-2922-5

⁴ <http://gov.wales/topics/people-and-communities/communities/safety/fire/?lang=en>

⁵ *CFOA Guidance for the Reduction of False Alarms & Unwanted Fire Signals*, 2014. <http://www.cfoa.org.uk/10863>

⁶ *Fire and Rescue Statistics, Scotland, 2013-14*, Scottish Government

⁷ Due to Apparatus – is the category used in the Scottish Government statistical bulletin for calls initiated by fire alarm and fire fighting equipment operating (including accidental initiation by a person)

Figure 1 illustrates the trend of number of incidents over recent years which, amongst other things, shows the level of false alarms remaining reasonably constant whilst other levels of FRS operational activity have been reducing significantly.

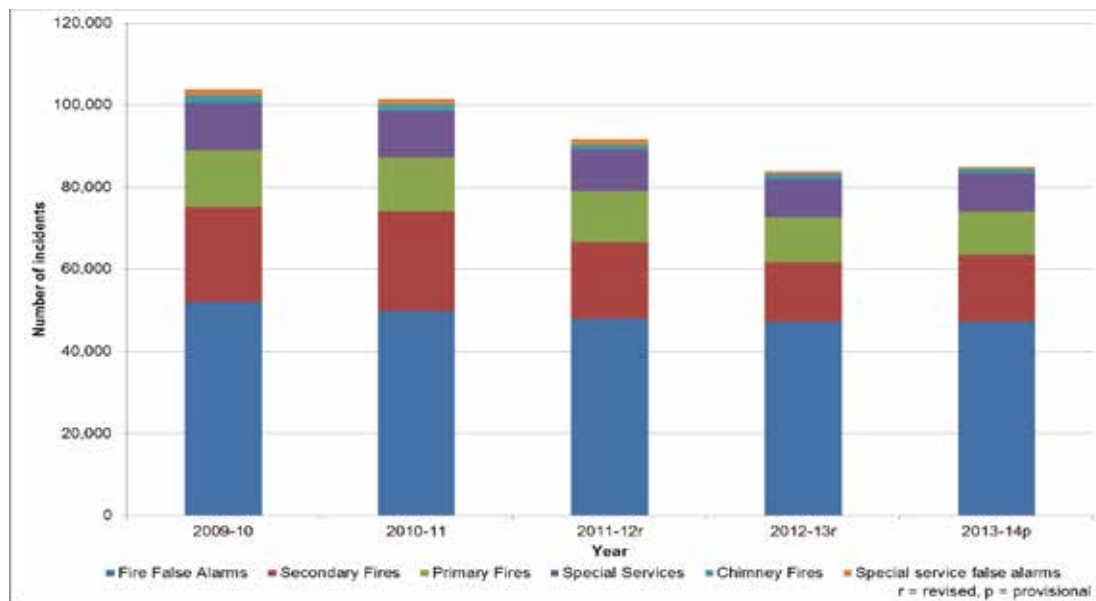


Figure 1 Breakdown of incidents attended by Scottish Fire and Rescue Services, 2009-10 to 2013-14

The role of Alarm Receiving Centres

Fire warning systems are often connected to an Alarm Receiving Centre (ARC). An ARC is a commercially operated centre which monitors the receipt of alarm signals so that a subsequent call is then made by the ARC to the fire and rescue service on system actuation.

An alternative, less common system is for the automatic fire alarm to make a 999 call by the use of an auto-dialler, which plays a recorded message when the call is answered advising of an alarm actuation at the location in question.

The use of a direct link or an ARC connection is a standard for new hospitals and certain residential care buildings to comply with building regulations. Scottish Government fire safety guidance⁸ identifies the benefit of an ARC connection for existing care homes with high or medium dependency residents.

In non-domestic premises where there is no link to an ARC, the fire routine for the premises normally relies on someone making a 999 phone call from the premises involved.

The quality of the information available to fire service Operations Control staff is clearly very important in determining an appropriate response, and that quality can vary whether the call comes from someone on the premises or via an ARC or auto-dialler. Although logic dictates that someone within the premises is more likely to have knowledge of the circumstances of the alarm actuation, there is not an absolute distinction between the two methods. Given this, we believe that there is a conflict of logic between two elements of the Scottish Fire and Rescue Service policy which respectively say:

⁸ Practical Fire Safety Guidance for Care Homes, Scottish Government, 2014 <http://www.gov.scot/Publications/2014/03/1383>

- An automatic fire alarm call received via an ARC (or auto-dialler) attracts a 'full fire PDA'; and
- A call received via a person calling from the premises where an automatic alarm has actuated who cannot confirm whether or not there is actually a fire results in the PDA less one fire appliance being mobilised.

We recommend that the Scottish Fire and Rescue Service addresses this conflict as part of its routine review of policy.

Later in this section of the report, we suggest a simpler way of categorising automatic fire signal calls for the purpose of determining an appropriate level of response.

Action to reduce the problem of unwanted fire alarm signals

Broadly speaking, there are two areas where action can be taken by the fire and rescue service to address the burden and manage the risk imposed by unwanted calls:

- by engaging with building occupiers and owners to help and encourage them to reduce the number of false actuations in their premises
- by modifying the resources that SFRS sends in response to a call originating from an automatic system.

The eight predecessor services in Scotland took varying approaches, particularly to the question of what resources should be sent to a call resulting from the actuation of an AFA. For example, Fife Fire and Rescue Service sent a single appliance, at normal road speeds, to such a call where there was no information to confirm the presence of a fire and there was no sleeping risk. Lothian and Borders Fire and Rescue Service also sent a single appliance, but under 'blue light' conditions. By contrast, Central Scotland Fire and Rescue responded to AFA calls in the same way as though an actual fire had been reported. Similar variations exist more broadly across the UK. One example of an innovative approach to modifying attendance which we highlight here is West Midlands Fire Service's recent introduction of three dedicated business support vehicles⁹.

The SFRS introduced a single, national policy in December 2014, which addresses both engagement with building occupiers, and the resources that are sent to a call. As stated above, if a call is received from a premises where an alarm is sounding, but the caller cannot say if there is a fire or not, one appliance is deducted from the response that would have been sent to a confirmed fire, but with a minimum response of two appliances to a premises with a sleeping risk and one to all other types of premises. If a call to an AFA actuating is received through an ARC, the SFRS responds in the same way as though there was a confirmed fire.

We think that the SFRS policy is unnecessarily complex and could be simplified. We also believe that there should be more discussion on the risks and benefits of various levels of response, noting that the new policy involves a greater number of appliances being sent to a call originating from an AFA in those areas where there had previously been a reduced attendance. Both of these things are discussed later in this report.

⁹ <https://www.wmfs.net/content/vehicles-alarming-success>

Engagement with building occupiers

Consistent with good fire safety management, fire warning systems require a suitable system of regular checks and periodic servicing in order to maintain performance. Installed systems and equipment are the subject of a British Standard which contains recommendations in respect of maintenance and testing of systems. Persons who are responsible for the operation of buildings and facilities should be ensuring that the number of false alarm actuations are minimised, thereby avoiding unnecessary costs through lost production or disruption to business functions. There is also a significant role for the fire protection industry in ensuring that fire warning systems provide good and reliable warning of fire.

The false alarm rate for any particular premises will be influenced by a number of factors, including the building size and the number of detectors or call points associated with the system and the activities carried out within the premises. To assist in determining what may be considered a reasonable level of false alarms, British Standard 5839 Part 1:2013 *Fire detection and fire alarm systems for buildings* provides recommended thresholds for acceptable false alarm rates in non-domestic situations.

Whilst it is recognised that the total elimination of false alarms is impossible, there will be premises where occupiers are either unable or are unwilling to tackle the problem with their alarm systems or might simply lack the knowledge to do anything. The SFRS recognises that it has a role where it can assist these persons by advising and motivating them to improve performance; with the potential of ultimately escalating to enforcement action in the worst cases.

Many fire alarm problems can be resolved by either improved management of the building, or the use of technology or adaptation of the system. The Fire Protection Association (FPA) estimates anecdotally that modern technology could reduce unwanted signals by 80%¹⁰ (detector heads can be re-sited, replaced or smoke detectors replaced by more discerning multi-sensor detectors).

One early SFRS-led initiative has been a decision by some business partners to supply covers for break-glass call points which have been deployed in premises where malicious or accidental actuation has been relatively common. To date, we have heard anecdotally that this change is having a positive effect but we have not yet seen any analysis of the impact of this initiative.

The SFRS UFAS policy describes the procedures for local monitoring of the number of UFAS calls from premises and contains stage thresholds, detailed below, which will trigger specific actions.

¹⁰ <http://tinyurl.com/qj5jgdf>

- At every alarm call attended by the SFRS the incident commander investigates the circumstances of the alarm actuation and leaves a form which contains advice for the premises occupier.
- If five or more attendances to a premises are made within a three month period, a follow up 'stage 2' letter is sent to the dutyholder. The letter provides details of the attendances made and offers sources of advice to assist the dutyholder in remedying the matter. The letter also informs the dutyholder of possible further action should the problem persist.
- If 10 or more attendances are made within a six month period then a 'stage 3' threshold is triggered. An SFRS Prevention & Protection manager will be directed to carry out a thorough investigation of the circumstances and a fire safety audit may be carried out by an SFRS enforcement officer. The results of this will inform any further fire safety enabling or enforcement activity to be taken.
- 'Stage 4' interventions are for premises which exceed a threshold of 20 or more UFAS within a nine month period. Premises within this category may then be subject to a staged PDA which would involve the initial dispatch of one pumping appliance at normal road speed.

Overall, it was unclear to us to what extent the policy of engagement with building occupiers was having an effect. Although we acknowledge that the sample of SFRS staff we spoke to was limited, we were not made aware of any positive outcomes which had come from a premises being subject to specific 'stage 2' or 'stage 3' interventions. And our understanding is that no premises has been subject to a 'stage 4' PDA reduction.

While we strongly support the notion of targeted intervention to reduce the numbers of UFAS at source, this relies on a consistent and rigorous application of the policy. We understand that the SFRS Prevention and Protection Directorate has commissioned a review of the policy implementation and we welcome that initiative. We suggest that the review should specifically involve a collation of information on all stage 2, 3 and 4 interventions that are taking place nationally, and cross-reference that with incident data from those premises to evidence whether UFAS, or 'blue light' journeys in response to them, are actually reducing.

The SFRS policy, as currently set out, poses an issue for larger complex multi-building premises such as hospitals. Some locations of this nature will have a number of different AFA systems: hospital sites are typically made up of a number of individual buildings or self-contained units, often with their own fire alarm system. The policy does not explain how this premises type will be treated, leaving open the possibility that calls from different systems would be aggregated for the purpose of the policy. We suggest that the policy should be explicit about how systems on multi-building sites will be treated and whether calls from them would be aggregated or not.

Modifying response

The concept of modifying response to an AFA call – that is, sending fewer appliances than to a confirmed fire, or sending some or all of those appliances without blue lights – is based on the idea that the risks and benefits of operational response need to be balanced. Many fire and rescue service staff can give examples of AFA calls that turned out to be fires – and where the AFA actuation led to a speedier intervention by the fire and rescue service. But equally, examples can be given of fire and rescue service staff, and members of the public, being injured or killed in the course of fire service response to AFA calls that turned out to be false alarms. We think that it is incumbent on the SFRS to take some steps to quantify the benefits that are gained from responding to AFAs, and also the risks involved in doing so.

This then provides a basis on which an informed judgement can be made about whether, given that nationally there is a 98% probability that an AFA call is a false alarm, fewer fire engines could be sent to an AFA call – or some of the appliances sent could travel at normal road speed – without unreasonably increasing the risk to occupiers of buildings with AFA systems.

It is clear to us that the introduction of a single, national policy has resulted in significant increases in ‘blue light’ journeys across the country.

Using data supplied to us by SFRS, we have extrapolated that over the course of the first 12 months of the new policy (assuming that nothing else changes) the Scottish Fire and Rescue Service will cause an increase of around 10,000 ‘blue light’ vehicle journeys across the country. We predict that the City of Edinburgh will experience over 5,000 extra journeys per year, which is equivalent to a 110% increase in journeys made in response to AFA calls in the capital city. This increase, arising from a standardisation of response policy across Scotland, has come about as a result of a conscious policy decision – and we cannot see at what point in the process the additional risk from these extra journeys has been weighed against the expected gain from them. Some illustrations of these changes are presented in an appendix to this report.

It is self-evident that changes on this scale will increase the likelihood of accidents and injuries and will have an impact across the range of consequences we have mentioned earlier.

We know that the introduction of the strategy was expected to produce an initial increase in vehicle journeys with subsequent decrease as the impact of the policy occurs. However we think that the complexity of managing and implementing the policy is such that a significant reduction in journeys is unlikely in any reasonable timescale.

The response part of the SFRS policy is complicated and in one respect the logic behind it is not clear. In respect of AFAs we can identify three scenarios:

1. a call is received where no-one can say if the actuation is a false alarm or not (this is the case whether the call is from an ARC, the call is from an auto-dialler, or the call is from someone at the premises who cannot say what the cause of actuation is);
2. someone at the premises has identified that it is definitely a false alarm and they know the cause of actuation, and passes this information to the SFRS;
3. someone has identified that there is smoke or fire at the premises and passes this information to the SFRS.

A consistent policy will take into account that in (1) there is an overall probability there is no fire¹¹, but there is need to make sure, in (2) it is established that there is no fire and in (3), that there is (probably) a fire. A reduced PDA might apply to (1), a limited or nil response to (2) and a full PDA to (3). The SFRS policy is more complex than that without any obvious justification for why that is so.

The response part of the policy does take risk into account, in providing that the PDA for sleeping risk should not be less than two appliances. As a stand-alone proposition that is not unreasonable. However we do not see any detailed discussion of the risk or justification of sending PDAs of more than two appliances to an alarm call (SFRS data shows more than 4000 calls where 3 or more appliances were mobilised to UFAS calls in 2014-15), or of sending the PDA (or part of it) under blue lights as opposed to normal road speed.

Research has been carried out to assess what the optimum response to an AFA call would be, bearing in mind a) the possibility that the call is a real fire b) the probability that it is not c) the cost of sending appliances to calls, in both money and lost opportunity to do other work. The UK Department for Communities and Local Government (DCLG) published a substantial report in 2008¹²; and the SFRS commissioned consulting firm Mott MacDonald to prepare a report¹³ for it on the same subject.

Both reports concluded that the risks and benefits of responding to AFA calls were best balanced by sending a single appliance, under blue lights, during the day, and sending two appliances under blue lights to sleeping risks (such as care homes, hotels, etc.) at night. *We understand that these conclusions involved an element of judgement and may not represent the only answer to the question.* But both reports, including the one commissioned for the SFRS, came to the same conclusion. It is unclear, on a reading of the SFRS policy and procedure documents, why those differ from the conclusions in the reports.

Taking account of the DCLG and Mott MacDonald reports, and all of the background information available to the SFRS, it seems to us that there is very good evidence which would support a reduced or single pump pre-determined attendance to many automatic fire signals, but with an acknowledgement of the risks posed by sleeping, care and other premises and with appropriate adjustments based on risk assessment for high risk premises. We encourage the Scottish Fire and Rescue Service to take this into consideration.

¹¹ Keeping in mind that for an individual premises with a very good record, actuation might indicate a probability that there is a fire – but that is still subject to confirmation

¹² See *Costs and benefits of alternative responses to Automatic Fire Alarms*, DCLG 2008

¹³ Unpublished

Examples from elsewhere

There is no single standard AFA policy across the fire services in other parts of the UK. The policies range from not attending at all, unless there is confirmation from the premises that there is a fire, to responses similar to those of SFRS. However, legislation¹⁴ has been introduced in England and Wales which allows the FRS to charge for attendance at AFA calls (an option not open to SFRS) under certain circumstances. There is no data as yet on whether the introduction of the ability to charge in England and Wales has had an impact on the scale of the problem. Alongside this, there are examples of parties working together to address problems as demonstrated in the case study below.

There has been good work done in call reduction strategies.

The Fifth London Safety Plan 2013 - 2016 demonstrates that appropriate interventions can dramatically cut false alarms in hospitals. The following is a quote from the Plan:

Through successful alarm management processes, some hospital sites have made impressive reductions in unwanted calls. An example of this is St Mary's Hospital (Westminster), which is part of the Imperial College Healthcare Trust, where AFA calls have reduced from more than 100 in 2009/10 and 2010/11 to only 2 in 2011/12. Other hospitals owned by the trust – which includes Charing Cross Hospital and Hammersmith Hospital – also have very low numbers of AFA calls.

And other major fire services worldwide have taken steps to modify the way in which they respond to automatic fire alarm calls:

FDNY modified response policy

Starting in 2010, the Fire Department of New York introduced a policy whereby not all appliances responding to certain lower-risk calls – including automatic fire alarms – would use lights and sirens.

Although the same number of appliances would attend as before – up to five in the case of large buildings – only two would use lights and sirens. The early results of this policy showed a 19% reduction in vehicle accidents in financial year 2012 (source: FDNY annual report, 2012).

The implication of this policy is that vehicle accidents can be reduced and public safety enhanced, if not all appliances responding to lower-risk calls use lights and sirens when doing so.

¹⁴ Localism Act 2011

Research

In November 2014 SFRS commenced a multi-agency partnership study within the City of Glasgow area into the causes and frequency of false alarms from fire alarm systems in buildings. The outcomes from the study are expected to result in proposed solutions, for a number of stakeholders, being developed to prevent recurrences in the future. The project is unique in involving two SFRS Enforcement Officers to work alongside a fire alarm industry expert to gather live intelligence on incidents. Early findings from the study indicate that duty holders implementing some simple solutions, such as fitting call point covers to protect manual 'break-glass' call points from accidental damage and using key switches to turn off alarm signaling during regular weekly system testing, can lead to a significant drop in false alarms. The full results of the study will be analysed by the Building Research Establishment and should provide a valuable source of information to enable SFRS to engage with duty holders and the fire protection industry to further tackle the problem of UFAS calls.

In commenting on a draft of this report, the SFRS shared its view that the results to date of the Glasgow City study provided evidence that collaborative engagement was the key to driving down UFAS, and the associated blue light journeys, over time. We have not been provided with detailed results of the Glasgow City study, but this feedback is consistent with the statistics we publish in the appendix. In principle, we agree that prevention should underpin any UFAS management strategy, and a concentrated focus of the sort being trialled in Glasgow City is a good approach to prevention. We observe, however, that the project has had two SFRS staff and a fire alarm industry expert assigned to it. If the SFRS intends to rely on the same approach to reduce UFAS country-wide, then it will need to provide similar resources to tackle the problem in locations outside Glasgow City. We have not been told what resources the SFRS intends to make available, and so we cannot be confident that good results in Glasgow will be replicated elsewhere.

Policy change – an operational or a strategic decision?

As part of this inspection, we have given some consideration to SFRS Board involvement with the development and monitoring of the relevant policy. In part, we were using this as a practical exercise to think about the distinction between operational matters (which in general would be for the Chief Officer and the Strategic Leadership Team (SLT) and strategic matters (which fall within the remit of the Board). To that end, we spoke to two Board members to explore their individual awareness of relevant policy. Drawing on that and our broader knowledge we make the following observations:

- It seems to us that the UFAS policy is a good example of something which straddles both operational and strategic issues. For example, detailed risk assessment of emergency response and practical engagement with building occupiers look like matters for the Chief Officer and Local Senior Officers. For the Board, the fact that receiving and attending AFA calls with the associated road risks, financial, environmental and opportunity costs represents a very significant proportion of SFRS work, means that the Board does have a legitimate interest in risk/benefit assessments and what account has been taken of any UK FRS learning.
- We are not suggesting that the weight and type of response to an AFA call, at a detailed, operational level, is a matter for the Board to determine. But in the context we have described here, we think that there are clear strategic elements to the policy and that this subject should continue to be of interest to the Board such that, for example, they might want to consider agreeing some targets for reduction of UFAS and 'blue light' journeys in response, with the SLT.

4 Conclusions and recommendations

Overall, we welcome and support the specific attention that the SFRS has given to the issue of AFAs and UFAS through the implementation of its policy.

We do not think that the Scottish Fire and Rescue Service policy, in its current form, sufficiently and explicitly takes into account the risks and benefits of attending calls generated by automatic systems.

We think that the Scottish Fire and Rescue Service has good engagement with the fire sector and business at a strategic level through its Business Engagement Forum – it is less clear that engagement with building occupiers at operational level has had any early effect.

We think that the procedures which allow for variation in speed and weight of response to AFA calls are unnecessarily complicated and do not take account of previous learning, experience and research. Partly because of the complexity of the policy and partly because its implementation requires a lot of time and effort, we do not think that the very significant increase in ‘blue light’ journeys which has occurred can be reversed, or improved on, in a reasonable timescale.

Arising out of this we make the following recommendations:

- 1. We think that the suite of policy and procedure documents is unnecessarily complex and recommend a significant simplification in the next iteration.**
- 2. We recommend that a consistent PDA should be planned for calls originating from automatic fire signals where the cause of actuation is unknown, regardless of how that call is transmitted to the SFRS.**
- 3. We recommend that the Scottish Fire and Rescue Service should reflect on the reports by Mott MacDonald and DCLG on speed and weight of response to AFA calls referenced in this report, and if it intends to continue to take a different approach, it should explain why.**
- 4. We recommend that the Board and Strategic Leadership Team of the Scottish Fire and Rescue Service consider numerical targets for a reduction in calls responded to which have been received from automatic systems, and the number of ‘blue light’ journeys made by fire appliances to automatic fire signals.**

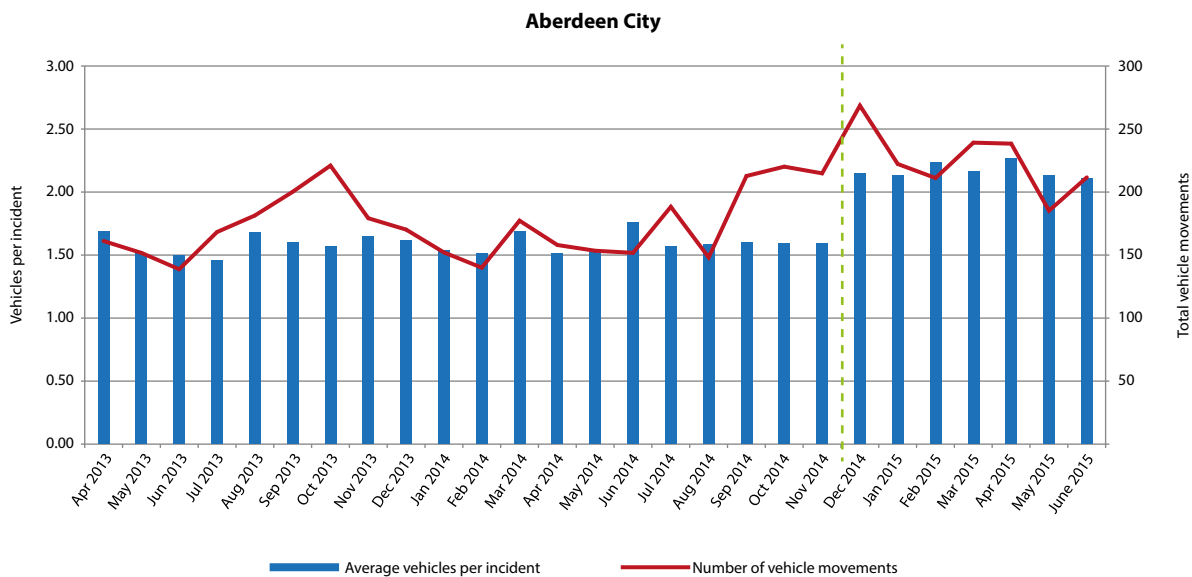
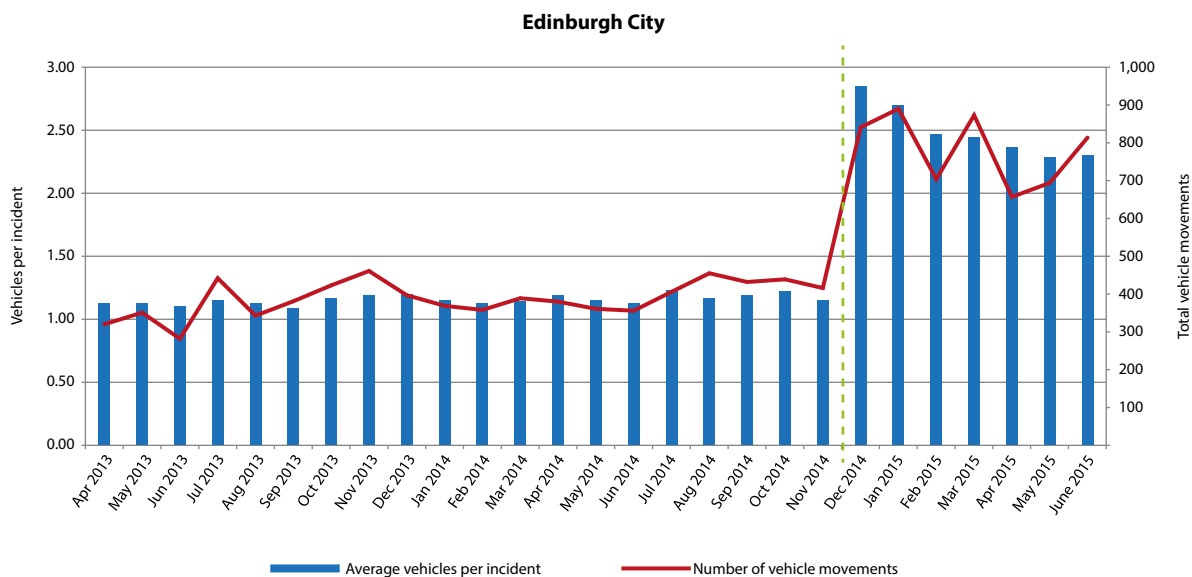
Glossary and abbreviations

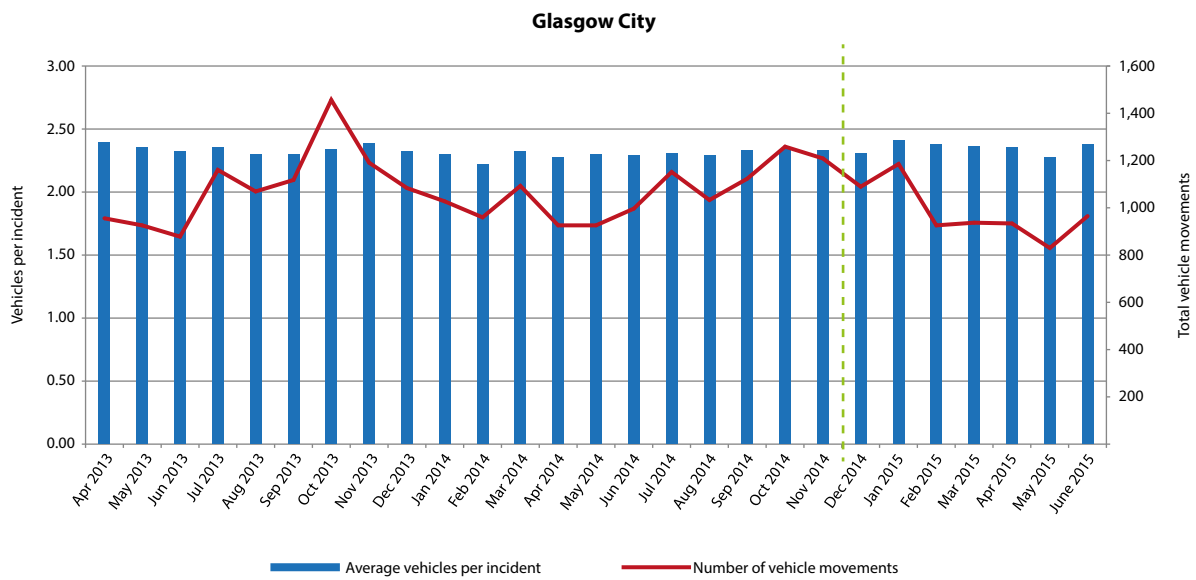
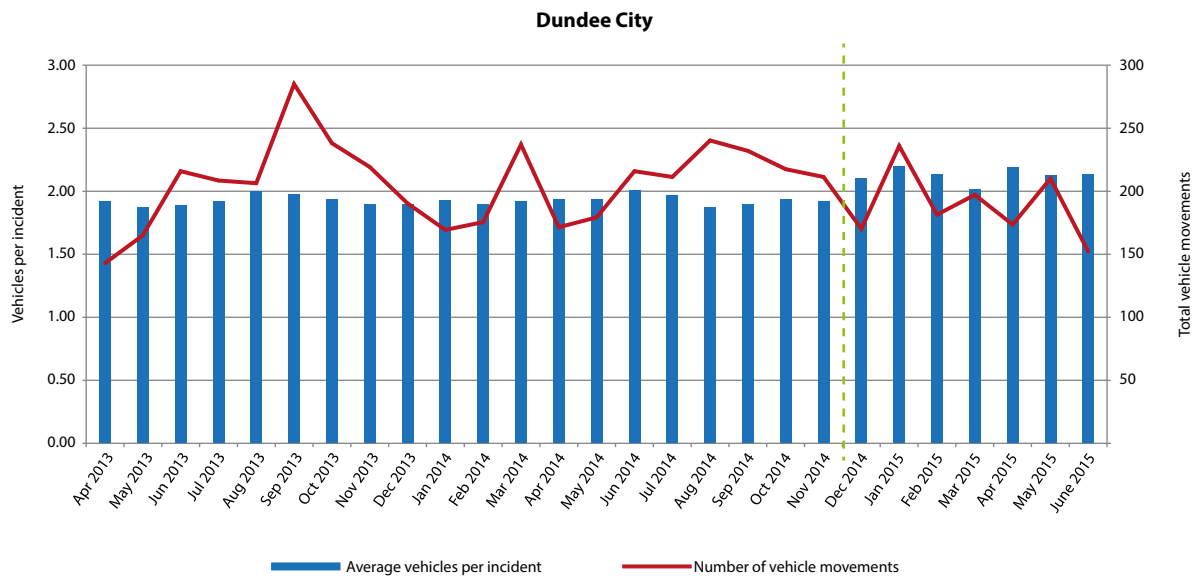
An explanation of abbreviations used in this report can be found in the table below.

AFA	Automatic Fire Alarm: a system which gives an alarm of fire without requiring human intervention. Can also refer to the alarm of fire itself when it has been given.
AFD	Automatic Fire Detection [equipment]
ARC	Alarm Receiving Centre: an organisation that receives signals from AFAs and then places a 999 call to the fire and rescue service.
BS	British Standard
(D)CLG	The Department for Communities and Local Government
FRS	Fire and rescue service
PDA	Pre-determined attendance: SFRS computerised control systems automatically nominate how many fire appliances are sent to a fire call, based on Service policy on the nature of the call and the nature of the premises involved.
Predecessor organisations	The 8 fire and rescue services in Scotland, and the Scottish Fire Services College, that were combined into SFRS.
Senior leadership	The term we use to describe the Board and Strategic Leadership Team acting together to provide governance and management of the Scottish Fire and Rescue Service.
SFRS	Scottish Fire and Rescue Service.
SLT	Strategic Leadership Team. The most senior operational leadership group within SFRS.
UFAS	Unwanted Fire Alarm Signal: an alarm of fire sent from AFA/AFD equipment which, on investigation, was not caused by an emergency situation.
2005 Act	The Fire (Scotland) Act 2005.

Appendix – some illustrations of changes to ‘blue light’ journeys made in response to AFA calls

Note: the new SFRS UFAS policy came into effect in December 2014







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HM Fire Service Inspectorate
St Andrew's House
Edinburgh
EH1 3DG

APS Group Scotland
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