



UNWANTED FIRE ALARM SIGNALS (UFAS)

Stocktake Review

March 2020

A Review of the Scottish Fire and Rescue Services Work to Reduce and Manage the Impact of UFAS

Conducted by the UFAS Review Working Group

Safety. Teamwork. Respect. Innovation.

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1 INTRODUCTION AND BACKGROUND

- 1.1 Automatic Fire Detection (AFD) systems are designed to provide an early warning of fire and give as much time as possible for people to escape from a building prior to a fire taking hold. Within the workplace they form a vital part of any fire safety strategy and remain one of the most effective ways to keep businesses, staff and customers safe from the effects of fire. However, the vast majority of signals from these systems are not actually activated by fires – they are false alarms, and if transmitted to the fire and rescue service, will generate an unwanted fire alarm signal (UFAS) which subsequently lead to fire crews being called out unnecessarily.
- 1.2 The SFRS attends on average 28,000 UFAS incidents per year accounting for 31% of all SFRS incident activity¹. This level of demand places an unnecessary burden on our resources and often causes significant interruption to businesses, health establishments and educational institutions across Scotland.
- 1.3 The unnecessary mobilisation of fire appliances to UFAS also has the potential to impact on the safety of both firefighters and communities as vehicles respond to incidents under blue light conditions. Reducing such unnecessary activity means our firefighters can focus on building and maintaining their skills to meet the new demands and risks Scotland's people and communities face.
- 1.4 The SFRS's UFAS Policy and Supporting Procedures were introduced on 01 December 2014². Collectively, these provide the basis of a national framework for targeting UFAS demand reduction activities across Scotland.
- 1.5 Since the introduction of this national framework, several factors have placed the reduction of UFAS demand into sharper focus:
 - The recommendations arising from HMFSI's Report – Managing Automatic Fire Signals (2015)³, which examined the effectiveness of the SFRS's Policies and Procedures for managing automatic fire signals.
 - The findings of the 2015 BRE multi-stakeholder project, which analysed the causes of false fire alarms in Glasgow City⁴.
 - The publication of The Fire and Rescue Framework for Scotland 2016⁵ ('the Framework'), which introduced reducing UFAS as one of the Scottish Ministers' priorities for the SFRS to progress.
 - Implementation of the UFAS PDA Reduction Matrix Procedures⁶, which was phased-in between mid-2016 and early 2018.
 - The SFRS Board setting a national target of reducing UFAS by 15 percent between 2017/18 and 2019/20⁷.
 - Continuing high levels of UFAS demand.
- 1.6 Therefore, given this context and the fact that the new SFRS Strategic Plan (2019-22)⁸ maintains a commitment to reducing UFAS, the time was considered right to take stock and review the effectiveness of the SFRS's work to reduce UFAS demand.
- 1.7 The review was conducted by the UFAS Working Group – a cross-directorate group established in December 2019 to take forward the P&P Functions key UFAS priorities: of mainstreaming good practice UFAS initiatives across the country, and consolidating the SFRS' overall approach to managing UFAS.
- 1.8 This report brings together the outcomes of that review. It covers an evaluation of the effectiveness of the SFRS's overall arrangements for reducing and managing UFAS demand and reports on the findings and recommendations for improvement.

1.9 The report covers the following themes:

- Overall progress made against the national target for reducing UFAS.
- An evaluation of the UFAS policy and supporting procedures, including systems for monitoring and reporting.
- The effectiveness of partnership working.
- Learning from key research projects.
- A summary of alternative approaches employed by other fire and rescue services to tackle the issue.

2 THE NATIONAL TARGET FOR REDUCING UFAS

2.1 The SFRS Performance Management Framework (PMF) was approved by the SFRS Board on 22 February 2018. Within the PMF, the SFRS committed to reducing UFAS by 15 percent between April 2017 and March 2020⁹. This was regarded by the SFRS as an ambitious target to meet.

2.2 Findings: Setting the National Target

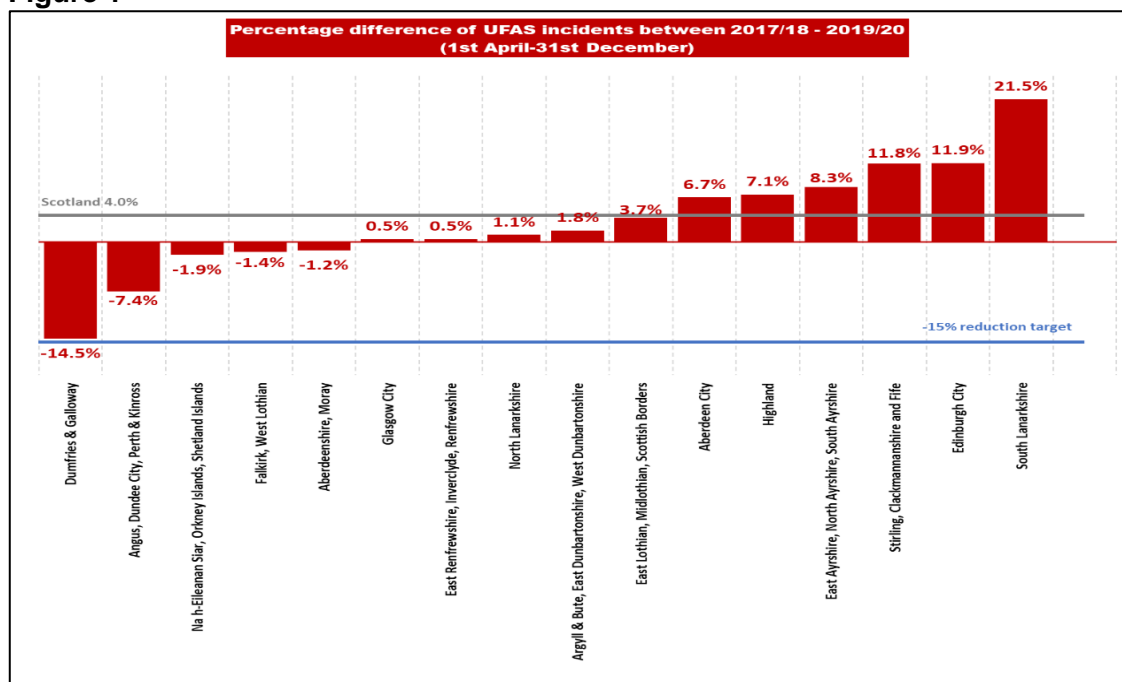
2.3 The current PMF defines a rigorous process involving analysis and forecasting techniques to set the SFRS's national targets. This process gives confidence that the targets set are realistic and achievable, and have been applied with care and consideration. The 15 percent reduction target was set outside of the findings of this process, but was considered necessary at the time given the context of the Framework, which made UFAS reduction a strategic priority and required a stretch target to be set by the Service.

2.4 In evaluating the SFRS's commitment to achieving the 15 percent reduction target, there is clear evidence of priorities and objectives for reducing UFAS being set within the Strategic Plan, Directorate Plans and all 32 Local Fire and Rescue Plans. Furthermore, performance reports at national and local level provide evidence of the monitoring of UFAS performance information.

2.5 Findings: Progress Against the Target

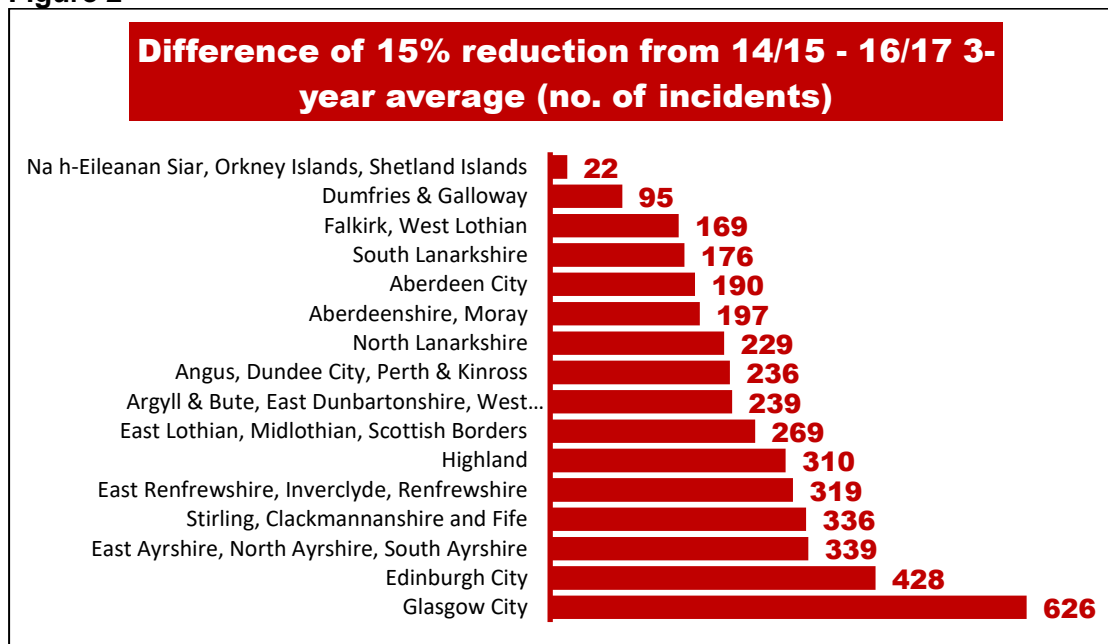
2.6 Taking the percentage difference of the number of UFAS attendances between 2017/18 and 2019/20, **Figure 1** illustrates that from April 2017 up to 31 December 2019, UFAS incidents have increased by 4 percent in Scotland. Based on this increase and the target deadline of 31 March 2020, the 15 per cent national reduction target will not be achieved by a considerable margin. Broken down by LSO area, **Figure 1** shows that the percentage differences when compared to the target are quite varied, with few examples of overall reductions in LSO areas being achieved.

Figure 1



- 2.7 **Figure 2** helps to contextualise the 15 per cent reduction target in each LSO area, by setting-out the required UFAS reductions by 31 December 2019 to meet the target. The required reductions in Glasgow and Edinburgh City LSO areas, collectively constitute 25 per cent (1054) of the overall target (4186). Whilst at the other end of the scale, the required reductions in Dumfries & Galloway and WIOS LSO areas, collectively constitute 3 per cent (117) of the overall target (4186).
- 2.8 It's foreseeable that the biggest proportion of UFAS calls will always occur in the LSO areas covering the largest cities and urban areas. It's therefore realistic that plans for reducing UFAS in the City of Glasgow and City of Edinburgh should be well developed and well resourced. There is an opportunity to work on this, given that reviews of Local Fire and Rescue Plans are underway, or being planned.

Figure 2



- 2.9 In considering external factors impacting on the SFRS's ability to meet the target, there is a view that number of AFD systems increasing in new builds, together with advances in fire detection and alarm system technology are increasing the likelihood of UFAS occurring. Ageing alarm systems within some public service estates is also a factor being considered. It could therefore be argued that although the target has not been achieved, the SFRS's interventions are having the effect of stabilising UFAS occurrences. To quantify that view, research will need to be undertaken, to examine the relationship between these factors and the frequency of UFAS occurring.

2.10 Key Findings

- The national target of reducing UFAS by 15 percent between April 2017 and March 2020, will not be met by some margin. Information gathered during the review suggests the target was set without full consideration and understanding of all internal and external factors. As of 31 December 2019, UFAS incidents had increased by four percent. This growth in UFAS will not be reversed and as it stands, the target will be missed by 19 percent.
- From what is known about the background to setting the target, the strategic context at the time appeared to be the overriding deciding factor. The rigorous process of forecasting is

conducted, to ensure that targets within the PMF are applied with due care and consideration. It would appear the 15 percent reduction target was set outside of the findings of this due diligence piece of work, in pursuance of a target that needed to be ambitious, to deliver the ministerial priority for reducing UFAS.

- The review identified other factors that could have been considered when setting the target, and in the planning to deliver the target at local level. These include having regard to the impact of a 15 percent reduction target on certain LSO areas by considering appropriate resource allocation, and considering the external factors influencing the SFRS's ability to meet the target.
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3 EFFECTIVENESS OF UFAS POLICY AND PROCEDURES

- 3.1 The current UFAS Policy and Supporting Procedures outline the SFRS's national approach and response to UFAS incidents. Collectively, they aim to establish a common national framework for tackling UFAS demand, by adopting the broad principles of:
- engaging with duty holders to help them reduce the number of false alarms in their premises, and therefore reduce the number of UFAS generated, and
 - modifying the Pre-Determined Attendance (PDA) to UFAS incidents, to reduce the number of blue light journey's and mitigate their impact.
- 3.2 The policy and procedures went live on 01 December 2014, following a review to harmonise the UFAS arrangements inherited from the legacy services. Since then, they have developed further in response to the P&P Functions ongoing policy review process and other factors such as having regard to HMFSI's report recommendations on Managing Automatic Fire Signals (2015).

3.3 Findings: Engagement with Duty Holders

3.4 The Multi-Stage Action Plan

- 3.5 The SFRS UFAS Incident Procedures set-out the management process for local monitoring of UFAS and application of interventions, to reduce demand. The process is based on the principal of frontline crews and other Service Delivery staff engaging and working closely with the duty holders and occupiers of premises through the application of a multi-stage action plan that triggers the following actions:
- At every UFAS the incident commander investigates the possible causes of the alarm actuation and advises on actions which may be taken to prevent a future actuation.
 - For premises where 5 or more UFAS have occurred within a three-month period, 'stage 2' is triggered by way of a letter being sent to the duty holder. The letter provides details of the premises UFAS activity and offers advice and support to assist the duty holder in tackling the problem. The letter also highlights possible staging of the emergency response should the problem persist.
 - For premises where 10 or more UFAS have occurred within a six-month period, 'stage 3' is triggered. An SFRS Prevention & Protection manager will conduct a thorough investigation of the circumstances and may direct a fire safety audit to be carried out by a fire safety enforcement officer. The findings inform any further fire safety interventions or enforcement activity for addressing the issue.
 - For premises which exceed a threshold of 20 or more UFAS within a nine-month period, 'stage 4' is triggered, which may lead to the premises being subjected to a staged PDA, involving the initial dispatch of one pumping appliance at normal road speed.
- 3.6 As a means of evaluating the effectiveness of the multi-stage action plan in reducing UFAS incidents, a sample of stage 2, 3 & 4 actions was gathered and cross-referenced with UFAS incident data. General feedback on implementing the process within LSO areas was also provided through the UFAS Working Group's Service Delivery representatives.
- 3.7 However, it was not possible to conduct any meaningful evaluation of the effectiveness of the multi-stage action plan. It was found that there is no standardised approach for recording and monitoring the implementation of the multi-stage action plan. The nature

of the address information supplied and the level of information being recorded vary widely across the LSO areas, and are not in a format that is conducive to analysing by Performance Data Services (PDS) using IRS. This resulted in PDS not being able to confidently cross-reference premises with incident data, analyse and then draw meaningful insights.

- 3.8 Based on records contained within Operations Control (OC) systems, there are no premises subject to a Stage 4 PDA reduction, and the evaluation couldn't find evidence of any premises being subject to this action since the procedures were introduced. Non-implementation of this action is likely to be influenced by factors such as sleeping risk premises being excluded from Stage 4 actions, the introduction of the PDA Reduction Matrix Procedures in 2016, and UFAS being managed before the premises ever reaches the Stage 4 trigger point.
- 3.9 Feedback indicates that LSO areas are investing a lot of staff time administering the multi-stage action plan process. The amount of staff time invested in administering this process therefore needs to be reviewed, given the findings highlighted at Section 3.7 of the report.
- 3.10 Engaging and building a good working relationship with the people who have the greatest influence over making changes to the premises overall fire strategy and investing in solutions for addressing UFAS, is the overriding success factor. **Appendix 1** provides an example of a good working relationship in action, and delivering UFAS reductions.
- 3.11 Frontline crews are the first line of defence in preventing further UFAS calls at premises they attend. Feedback indicates that they should be equipped with the knowledge and understanding to be able to engage effectively and advise on actions to prevent further actuations. The development of a training module to support frontline crews to engage effectively with duty holders, has been planned since the recommendations of the UFAS policy review in November 2015¹⁰.
- 3.12 There is a view that the letters sent-out to duty holders are counter-productive to enabling effective engagement and therefore building good working relationships. Research into failure demand within the public service¹¹, shows that using letters and other types of communication methods, can be effective at changing behaviour, when their design is informed through behavioural insight.
- 3.13 The SFRS's Communications and Engagement Strategy sets out the key principles for enabling effective communications and engagement with stakeholders and staff. These principles therefore provide a useful framework for reviewing the communication and engagement methods adopted within the UFAS Policy and Procedures, as a way of identifying any areas for improvement.
- 3.14 **Use of Staff Alarms**
- 3.15 The UFAS Policy and Supporting Procedures emphasises engaging with businesses in promoting the use of staff alarms/investigation periods as the principal method for reducing UFAS, except for premises categorised as residential care homes. Through a review of ongoing UFAS reduction initiatives, there are limited examples of this method being facilitated by some LSO areas (**Appendix 2**). Sharing examples of staff alarms working in action locally, will help to promote this method and support the P&P Function priority of mainstreaming good practice.
- 3.16 It should be noted that there are other effective methods for reducing UFAS, which could be promoted in the policy and supporting procedures. These methods have been proven through extensive research (**Section 6.3**) and good practice (**Appendix 3**) to

work effectively as a single solution, or in combination with others as part of an overall strategy.

3.17 Going forward, NHS Scotland's (NHSS) recent UFAS Position Statement (**Appendix 4**), could be a barrier to promoting the use of staff alarms as the principal method of reducing UFAS. Hospitals and medical care are the top premises for UFAS incidents, and in recognition of NHSS's policy decision, the P&P Function have been actively engaging with them through the NHS Fire Safety Advisory Group (**Section 5.12**). This level of engagement is invaluable and as an example, has led to the planning of a joint seminar, covering UFAS and other fire safety related matters.

3.18 **Good Practice**

3.19 Building an understanding of the UFAS initiatives, that have delivered good performance, creates knowledge which in turn can be shared and applied to areas where challenges exist.

3.20 'Take 5' (**Appendix 5**) is an example of good practice that was promoted as an effective campaign, and rolled out nationally. 'Be Aware' (**Appendix 6**) is a more recent example of good practice, with plans to roll-out this initiative as a national campaign during March 2020, and then implement locally from April 2020 onwards.

3.21 There is some evidence of national campaigns being implemented within LSO areas. However, further work is still required to enable mainstreaming of these across Scotland. For example, implementation guidance, access to campaign materials and methods for evaluating impact were cited as challenges to implementing the 'Take 5' campaign locally.

3.22 The P&P Function recognises there are further opportunities for sharing good practice nationally. Examples of local good practice are being gathered and evaluated through an exercise that aims to ensure all LSO areas have access to the most effective methods of reducing UFAS. There are plans to enable this through developing the UFAS iHub and future meetings of the UFAS Champions National Forum.

3.23 **The Role of the UFAS Champion**

3.24 During 2016, the role of the local UFAS Champion was implemented nationally, following it being recommended as an area of good practice in some LSO areas. By installing dedicated 'champions' in all LSO areas to monitor trends and deliver reduction strategies, there was an expectation that their work would enable LSO's to reduce UFAS demand.

3.25 By reviewing the good practice currently being gathered and evaluated, there are some examples of UFAS Champions meeting the above expectations. Out-with these examples, the role being undertaken by UFAS Champions appears to vary. The role of the UFAS Champion, and how they should operate within the context of national and local UFAS priorities, does not feature within the existing policy and procedures. This factor may have contributed to the number of variations of this role across the Service. The Lessons Learned section of **Appendix 1** provides an example of a UFAS Champions structure. This example operates within an LSO area that has been delivering overall UFAS reductions.

3.26 Since their introduction in 2016, ongoing training and development for UFAS Champions has been limited. During 2016, training events were delivered to ensure UFAS Champions could utilise the Services UFAS Recording System. Further training events were undertaken, to explain staff alarms and associated good practice.

3.27 Until very recently, national direction and coordination of this role has also been limited. A UFAS Champions National Forum was established in June 2019, to coordinate UFAS reduction activity and drive forward good practice nationally. It has met once and further meetings are planned, pending a review of its terms of reference by the UFAS Working Group. This review is being treated as an early priority of the UFAS Working Group. Its aim is to clarify and strengthen the role of the UFAS Champion, re-focus the purpose of the National Forum on mainstreaming good practice, and enable the UFAS Champions to perform their role effectively.

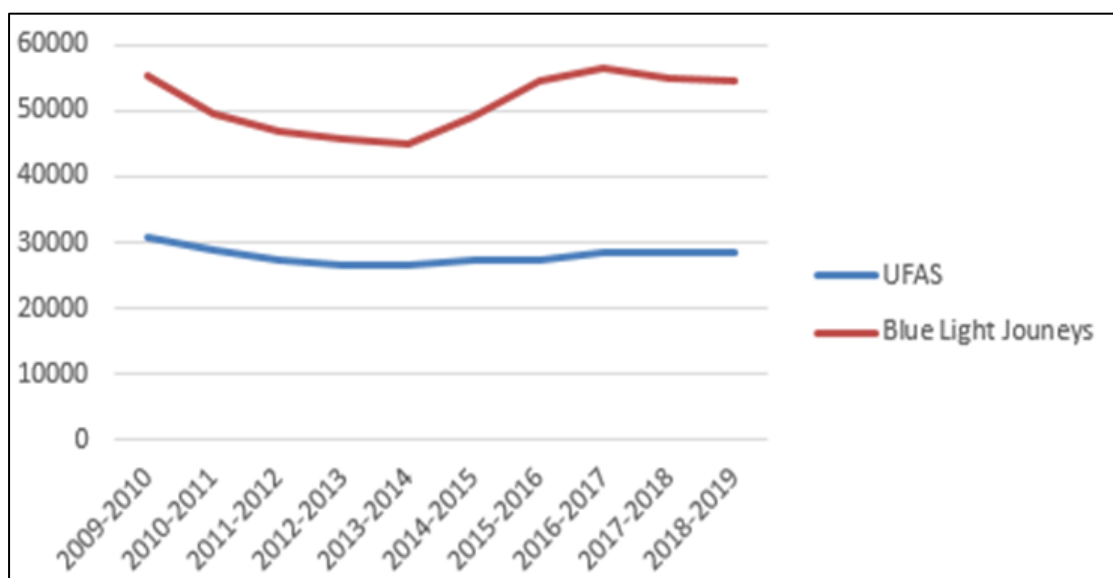
3.28 Findings: PDA Reduction

3.29 The SFRS's current model for managing PDA's, and therefore reducing blue light journey's to UFAS incidents, is delivered through a combination of applying call filtering processes by OC, and implementing the SFRS's PDA Reduction Matrix Procedures. It is underpinned by a policy that ensures premises designated as sleeping risks will always attract a minimum response of two fire appliances.

3.30 The challenges of producing statistics on blue light journeys, makes it difficult to conduct an accurate and reliable evaluation of the overall impact of the SFRS's arrangements for reducing blue light journeys. These challenges are covered in more detail at **Section 4.8** of the report; however, it is possible to extrapolate blue light journeys, using incident data drawn from IRS.

3.31 Looking at **Figure 3**, it's estimated that blue light journeys have been on a slight downward trajectory since 2016, while UFAS incidents remain relatively static. The start of this downward trend coincides with the introduction of the PDA Reduction Matrix Procedures and is covered further at **Section 3.40** of the report. The sharp increase shown in 2013/14 relates to the introduction of a standardised risk based approach to mobilisation and implementation of a single national UFAS policy in December 2014. The SFRS inherited specific response arrangements from its predecessor organisations and some had reduced attendances to AFA calls. The introduction of a single policy ensured that all sleeping risk premises and other similar types of high risk premises would always attract a minimum response of two fire appliances and provided a suitable baseline to start operating its risk based approach to mobilisation.

Figure 3



3.32 Call Filtering

3.33 The current arrangements for call filtering by OC have been in place since the introduction of the SFRS UFAS Policy and Procedures in December 2014. It enables the SFRS to dispatch the appropriate level of PDA, based on the application of a flow chart that prompts OC Staff to ask simple questions. The OC call filtering process is underpinned by the following policy decisions:

- Mobilisation of a minimum of one appliance.
- Premises designated as sleeping risks will always attract a minimum mobilisation of two appliances.
- Calls generated by Alarm Receiving Centres (ARC) will always attract a Full Fire PDA. (with exemptions to premises subject to a Stage 4 Intervention (**Section 3.5**).

3.34 An evaluation of the impact of call filtering on reducing blue light journeys was limited to UFAS data drawn from the Johnstone OC mobilising system. This was because the migration of legacy OC's in the north and east, and subsequent archiving of their data, made it very difficult to guarantee the accuracy and reliability of historical UFAS call filtering data within the Dundee and Edinburgh OC's. However, general feedback on the application of call filtering, was provided by staff across the three OC's.

3.35 The information in **Table 1** quantifies the impact of Johnston OC's call filtering on reducing blue light journeys in the West SDA. This is based on the proportion of UFAS calls that OC staff tagged on the system as responding with a reduced PDA following call filtering. The figures show that the proportion of UFAS calls receiving a reduced PDA through call filtering are relatively low, with a gradual year on year increase being evident over the four-year period.

3.36 An assumption can be drawn that similar levels of call filtering are being delivered by Dundee and Edinburgh OC's.

Table 1

Johnston OC Data	2016/17	2017/18	2018/19	2019/20 (up to 31 Dec 2019)
UFAS attended in the West SDA	13049	13463	13221	10603
Numbers tagged with reduced PDA through call filtering	1133	2200	2829	2375
Proportion (%) with reduced PDA through call filtering	10%	16%	21%	24%

3.37 The application of call filtering is based on a few simple questions by OC staff and has always been a cautious one that simply asks if the caller can confirm a fire, or if the caller knows the cause of the activation. Inevitably, this cautious approach can lead to a Full Fire PDA being mobilised to a UFAS call, and for calls generated by an ARC, this will almost always be the case.

3.38 Feedback regarding the usability of the call filtering flowcharts was mixed. Some OC staff felt that the flowcharts were easy to follow, whilst feedback from others suggest some challenges applying them. For example, local guidance has been developed by OC to simplify the flowcharts and make it easier for OC staff to apply them.

3.39 The above feedback indicates inconsistencies in the application of the call filtering process. It should be noted that the UFAS policy review conducted in 2015, identified similar issues and recommended further training for OC staff. This led to the development of UFAS training material for OC staff, which is available via the LCMS and part of OC's 3-year Maintenance Phase Development Plan.

3.40 UFAS PDA Reduction Matrix Procedures

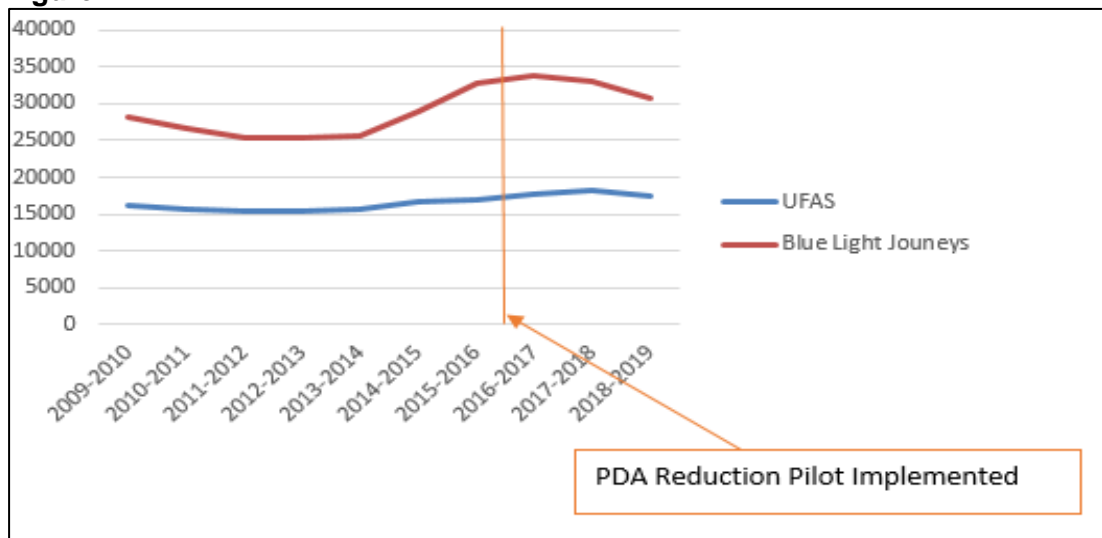
3.41 The UFAS PDA Reduction Matrix Procedures was phased in between mid-2016 and early 2018, to manage the reduction of PDA's to non-sleeping/low risk premises responsible for high levels of UFAS activity, and therefore reduce the number of blue light journeys. These procedures are based on:

- Applying a balanced and risk based process for reducing PDA's.
- Standardising the reduced PDA to one appliance under blue light conditions.
- Applying the process to the top 15 UFAS offenders per local authority area on a quarterly basis.

3.42 Evaluating the impact of these procedures covered extrapolating blue light journeys for non-sleeping/low risk premises using IRS data, and quantifying the number of PDA's reduced to one appliance. Feedback on the application of the procedures was also gathered through the Working Group's Service Delivery representatives.

3.43 **Figure 4** illustrates a downward trajectory in blue light journeys for non-sleeping/low risk premises, since the introduction of the PDA Reduction Matrix Procedures. Using records kept by OC and LSO areas, it was estimated that 4000 PDA's have been reduced to one appliance up to the end of 2018/19 – a figure that meets the overall expectations of the procedures (**Section 3.41**). Based on this figure, and what is shown in **Figure 4**, it's estimated that a similar timescale (approximately 3 -years) will be required to bring blue light journey's down to 2013/14 levels.

Figure 4



3.44 The PDA reduction information was drawn from records kept by OC's and LSO areas. This information is held in various formats, which made it very difficult to obtain an accurate account of the current situation.

3.45 There is a requirement to invest a lot of staff time applying the procedures. The procedures cover an 8-stage process and involves a lot of administration, to apply to the top 15 UFAS offenders per local authority area on a quarterly basis.

- 3.46 The continuous process of identifying the top 15 UFAS offenders per local authority area is not sustainable in some LSO areas due to limits on identifying further premises that meet the requirements. In response to this, some LSO areas have adopted a thematic approach to applying the procedures (e.g. applying it to all primary and secondary schools).
- 3.47 The procedures do not apply to sleeping risk premises. As the top premises for UFAS calls, this policy decision limits opportunities for making further PDA reductions, and reducing blue light journeys.
- 3.48 The implementation of a time and risk based PDA response model (**Section 6.14**), would free-up the resources spent on administering the existing procedures, for conducting the more value adding work of engaging with duty holders and investing time in solutions for reducing UFAS.

3.49 Key Findings

- LSO areas spend a disproportionate amount of time administering the UFAS policy and procedures, rather than tackling the issue of reducing UFAS. The time spent recording information and administering letters for the multi-stage action plan is a potential barrier to some LSO areas implementing it effectively. Likewise, administering the PDA Reduction Matrix Procedures is a time intensive task, requiring the application of various stages, to identify premises, assess and reduce PDA's to UFAS.

- In connection with the above, there is no standardised approach for recording and monitoring the implementation of the UFAS multi-stage action plan within LSO areas. They were not in a format appropriate for analysing using IRS statistics, which made drawing any conclusions on the impact of multi-stage action plans very hard to reach.

- The principle of engaging and building close working relationships with duty holders is key for delivering success, but applying this through the application of a multi-stage action plan may be stifling effective communication and engagement. The methodical approach adopted, and the associated methods of engagement and communication would now benefit from being reviewed.

- As the principal method for reducing UFAS, there is limited evidence of staff alarms being facilitated by LSO areas. It was noted that there are other effective methods for reducing UFAS, and these methods are absent from the current policy and procedures. The NHSS's policy decision around staff alarms is a challenge going forward, but there is clear evidence of the SFRS and NHSS working together, to seek solutions.

- There has been limited sharing of UFAS good practice between LSO areas, which suggests that LSO areas understanding of what works in reducing UFAS lacks precision. This has not been helped by the absence of a means of capturing good practice, and methods for evaluating their impact. It was noted that plans for mainstreaming UFAS national campaigns and sharing good practice are now being prioritised with some good examples beginning to emerge.

- Without improved support and direction for key staff, their ability to engage effectively and implement solutions for reducing UFAS could hinder future progress. There is a lack of focus on the overall support mechanisms for key staff, frontline operational crews and UFAS Champions. This includes arrangements for their training and development, local delivery structures and national direction and coordination. It was noted that a review is now underway, to strengthen the role of UFAS Champion, and therefore clarify the overall support required for undertaking this role.

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- Blue light journeys are gradually reducing through the application of the SFRS's current arrangements for reducing PDA's. Whilst this is seen as a success, the review indicates challenges and limitations associated with OC's call filtering processes and the PDA Reduction Matrix Procedures. For example, the current procedures do not apply to sleeping risk premises and therefore limits opportunities for making further blue light reductions.
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- Continuing with PDA Reduction arrangements is expected to continue to bring down blue light journeys gradually. However, if the SFRS has ambitions to achieve significant reductions within reasonable timescales, the effectiveness of the current arrangements needs to be improved, or policy changes (e.g. extending the PDA Reduction Procedures to sleeping risks) and alternative approaches need to be considered (e.g. moving to a time and risk based PDA response model).
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4 THE UFAS RECORDING SYSTEM (URS)

- 4.1 The URS is the Services national performance management system for recording and analysing all UFAS activity, and reporting changes in blue light journeys resulting from the current UFAS procedure and call filtering protocols. It went live in February 2018, and was developed following a recommendation arising from the UFAS policy review in November 2015.
- 4.2 The URS was introduced in phases during 2018. The initial phase allowed for the recording of UFAS incident details and reporting blue light journey's. Phase Two would then provide the ability to upload correspondence in relation to UFAS reduction measures applied to premises (e.g. Stage Two letters, completed PDA Reduction Decision Matrices etc), and run relevant reports.

4.3 Findings: Current Status of the URS

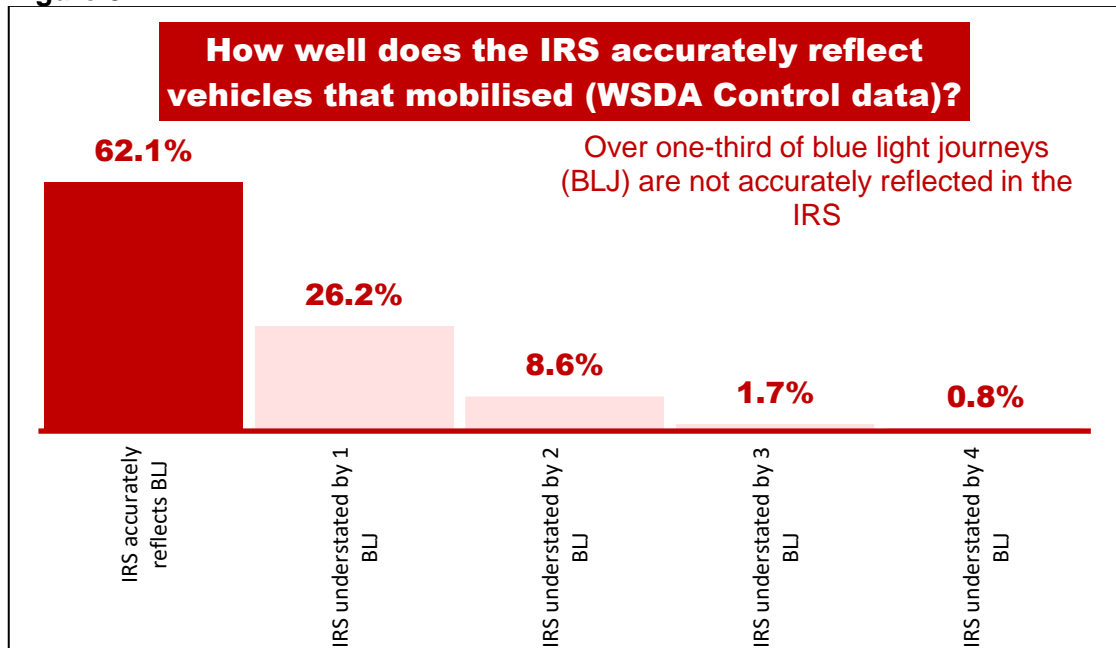
- 4.4 Phase One of the URS requires development, to improve its usability. This is being worked on by ICT. Phase Two has not been introduced yet. This was planned for release by the end of 2018, and awaits action by ICT.
- 4.5 Of the 76,000 UFAS incidents on the URS, approximately 33,000 (43%) are shown as incomplete records (e.g. requiring details of action taken by the incident commander). Although some of the reasons for incomplete records are due to system issues, it still leaves a large proportion of incomplete incidents not being actioned by LSO areas.
- 4.6 The system being down for considerable periods of time, is cited by users of the URS as a key cause of the incomplete records highlighted at **Section 4.5** above.
- 4.7 The above factors are having a significant impact on the ability of the URS to achieve its intended purpose. The incomplete UFAS records are compromising the accuracy and reliability of any reports or analysis run on the URS.

4.8 Findings: Reporting Blue Light Journeys

- 4.9 The HMFSI's Inspection Report - Managing Automatic Fire Signals (2015), recommended that the SFRS Board and SLT consider a numerical target for the number of 'blue light' journeys made by fire appliances to UFAS. Since the publication of this report, the P&P Function have been exploring ways to report accurately on blue light journey reductions, but challenges are being encountered.
- 4.10 The URS has a blue light reporting function which can produce statistics on blue light journeys. However, using these statistics as an accurate account of blue light journeys presents issues, because:
- They rely on incident commanders recording the correct Full Fire PDA and actual PDA that responded under blue lights to each UFAS incident.
 - The current number of incomplete UFAS records compromises the accuracy and reliability of the statistics.
- 4.11 PDS have been exploring the practicalities of using Incident Recording System (IRS) data, to extract statistics on UFAS blue light journeys. As a way of testing this, PDS compared IRS UFAS data recorded within the West SDA against UFAS mobilisations recorded in the Johnstone OC mobilising system. By doing this, PDS have calculated the margin of error in considering IRS data for producing statistics on UFAS blue light journeys. The findings are presented in **Figure 3**, and in summary conclude that over

one third of UFAS blue light journeys are not accurately reflected in the West SDA IRS data. An assumption can therefore be drawn, that similar inaccuracies will exist within the IRS UFAS data recorded in the East and North SDA's.

Figure 3



4.12 A solution capable of accommodating the statistical requirements for reporting UFAS blue light journeys has been specified within the Systel Command and Control Mobilising System, which aims to be live by quarter one 2021. In the meantime, the accurate reporting of UFAS blue light journeys will continue to be a challenge and therefore should be considered, if such statistics are to be used by the Service and published in the future.

4.13 Key Findings

- There are a range of factors having a substantial impact on the ability of the URS to achieve its intended purpose. A significant amount of resources need to be invested in the URS, to bring it up to a level where it's operating effectively.
- Reliance on the capabilities of IRS statistics, to review blue light journeys, risks understating blue light journeys by over one third. A Systel solution is estimated to be at least one year away. The margin of error therefore needs to be considered by the Service, if it wishes to continue using IRS statistics for this purpose, pending implementation of a Systel solution.

5 PARTNERSHIP WORKING

- 5.1 Working in partnership is key to successful delivery against the SFRS's priorities and aims. This common principle cuts across all functional and local areas of the Service, and is embedded within the core values of the SFRS.
- 5.2 Within the UFAS Policy, there is recognition that there is no single organisation responsible for investigating false alarms from AFD systems. Therefore, to have the right conditions for identifying the underlying causes of false alarms and preventing UFAS occurring, there must be effective working relationships with partners at both national and local levels.
- 5.3 At local level, this is primarily focussed on SFRS's ability to engage effectively and work closely with duty holders on solutions for reducing UFAS, and was covered at **Section 3.4** of the report. This section therefore focuses on the partnership landscape at national level, where the emphasis is on the extent to which the SFRS has built-on and developed relationships with stakeholders from the business and public sector, and fire industry, in pursuance of reducing UFAS.

5.4 Findings: Partnership Landscape at National Level

5.5 Scottish Government

- 5.6 The SFRS helps the Scottish Government to deliver on its vision for Scotland, and it does this through meeting the expectations set-out in the Fire and Rescue Framework for Scotland 2016. Reducing UFAS is a Ministerial priority within the Framework, and work is ongoing with the Scottish Government to demonstrate the efforts that are being made by the SFRS, to reduce the number of UFAS calls.
- 5.7 The recent SFRS mid-year performance review demonstrated to the Scottish Government its commitment to reducing UFAS, by outlining priorities for mainstreaming UFAS good practice, and consolidating and strengthening policies and procedures. The findings of the stocktake review will help to inform the future strategic direction of how UFAS will be managed by the SFRS, and therefore provides the basis for constructive engagement with Scottish Government on how this challenging area will be tackled going forward.

5.8 The Business Engagement Forum (BEF)

- 5.9 The BEF provides an effective means of communication between SFRS and Scotland's business community at a strategic level. Assisting SFRS to engage with businesses ensures that their needs are considered in the development of SFRS policies and procedures. Furthermore, the BEF provides a forum to work in partnership with the wider fire industry to share information and educate business and commerce.
- 5.10 The BEF has long established links into the fire industry and has been key in the revision of the British Standard for fire alarm systems. In 2014, funding was given by the group to commission a Building Research Establishment (BRE) study into live investigations of false alarms which has directed SFRS procedures in tackling UFAS at source (**Section 6.9**). In addition, the group have sought to secure funding for an initiative to install Manual Call Point covers in premises with false activations. This project is ongoing and expected to be delivered in the summer of 2020.
- 5.11 Given the BEF's key role in assisting the SFRS to engage with businesses, going forward this presents opportunities to 'road test' and refine any UFAS policy proposals

before they are finalised or implemented. Furthermore, the BEF's good working relationship with associations such as the Fire Protection Association, Fire Industry Association, and Association of British Insurers, will ensure that the SFRS can contribute fully and inform debate across the wider UK fire detection and alarm industry.

5.12 **NHS Fire Safety Advisory Group (FSAG)**

5.13 The NHS FSAG consists of fire officers from NHS Boards across Scotland who work together to address common issues within the healthcare environment. The SFRS are represented on this group, and identify and share good practice to reduce the instances of UFAS within hospitals and other health premises. The contextual factors highlighted at **Section 3.17** of the report strengthens the value of working closely with this group, to address the challenges of reducing UFAS demand within the healthcare environment.

5.14 **Scottish Business Resilience Centre (SBRC)**

5.15 The SFRS currently have a seconded officer within the SBRC. This officer drives a collaborative effort between SBRC and SFRS to reduce UFAS within commercial and business premises by engaging with them through a network of trusted partners, external stakeholders and members of SBRC. Through this approach, the SBRC are able to provide guidance, advice and intelligence to assist in the reduction of UFAS within the business sector.

5.16 The seconded officer has assisted & progressed the development of the 'BE AWARE' initiative (**Appendix 6**). UFAS reduction has the potential to be highlighted through various SBRC work streams including retail & tourism via the SBRC Scottish Business Resilience Award (**Appendix 8**). In planning for COP26 coming to Glasgow, the SBRC has started to engage nationally with the hospitality sector and hotel industry, in support of them becoming more prepared and resilient for this major event.

5.17 Through training delivery, online articles and social media platforms, the SFRS seconded officer has engaged with approximately 150 Small to Medium Enterprises (SME), licensed venues as well as larger organisations on UFAS reduction. The development of a 'UFAS Toolkit' by the seconded officer, to be made available to these premises, is planned for launch during 2020.

5.18 **New Partnership Opportunities**

5.19 SFRS have built strong working relationships with many of our key partners and engage on a regular basis to ensure that they are fully aware of the disruption which UFAS causes to both SFRS and their own business. This partnership approach to reducing UFAS is vital within premises such as residential care homes, which are currently our second highest offender, averaging around 2000 UFAS calls per year.

5.20 Current SFRS UFAS policies and procedures restrict the type of action that can be taken within residential care homes due to the vulnerability of the residents and other avenues to reduce UFAS need to be explored.

5.21 SFRS have recently engaged with the Care Inspectorate (CI), to explain the impacts of UFAS, with a focus on the effects these calls may have on the health and wellbeing of residents within care.

5.22 Through this engagement, the SFRS and CI have agreed to work together on a project, that will challenge care facilities that cause unacceptable levels of UFAS calls. The

initial proposal is to co-develop bespoke guidance for care facilities, including a podcast on the CI's information hub, and agree an information sharing protocol, that will enable the CI to challenge care facilities on their performance based on UFAS information supplied by the SFRS.

- 5.23 Although this project is in its infancy, if successful at reducing UFAS it could act as a blueprint for other strategic partnership initiatives.

5.24 Key Findings

- The partnership landscape at national level is a key strength of the existing UFAS arrangements. Any future UFAS policy developments, should seek to further strengthen the current partnership arrangements at this level, with a view to these partnerships and any potential new ones co-designing strategies and solutions for addressing the future challenges of tackling UFAS.
-

6 LEARNING FROM KEY RESEARCH

6.1 Research undertaken to look at ways to reduce UFAS and modify the PDA response to these calls are not new. The most recent and relevant research studies, and the extent to which the SFRS has considered or learned from their findings in order to inform UFAS policy are summarised below. An overview of research into managing demand within the public sector also provides useful insights into using demand management approaches as a strategy for transforming services.

6.2 Findings: Learning

6.3 Causes of False Fire Alarms in Buildings (2014)

6.4 Conducted by BRE¹², a research project was conducted, to collate information about the causes of false alarms observed in buildings and to identify approaches that could be developed and used to reduce their occurrence and subsequent UFAS call-outs.

6.5 Whilst the false alarm data used for the research was limited to two contributors - Kings College London and Buckinghamshire & Milton Keynes Fire Authority, the findings provided very useful insights into the most effective interventions for reducing false alarms and subsequent UFAS call-outs.

6.6 Following a thorough review of the data supplied by the contributors, six physical interventions were identified to address all the valid false alarms reported. These are presented in **Table 2**, and in summary conclude that the replacement of existing detectors with intelligent multi-sensor detectors (that detect more than one fire phenomena) was the solution that could reduce false alarms by the greatest amount (69%).

Table 2

Solution	Proposed intervention action	Number of potential causes resolved
1	Replace detector with multi-sensor	69.2%
2	Use of appropriate approved detector/s located correctly	43.5%
3	Use of protective covers over approved MCPs with adequate signage and CCTV where required	16.7%
4	Use of EN 54-2 approved analogue addressable panel	10.2%
5	Better control of contractors	9.7%
6	More rigorous maintenance of the system	6.0%

6.7 The ongoing exercise of gathering UFAS good practice and evaluating their effectiveness, shows evidence of solutions 1, 2 & 3 being facilitated by some LSO areas. Promoting these solutions nationally, along with examples of where they have worked in action locally, would underpin the P&P Functions priority of mainstreaming good practice.

6.8 Through Buckinghamshire and Milton Keynes Fire Authority's contributions, the research project also found that the use of a technical and experienced individual dedicated to investigating false alarms and engaging directly with regular offenders is a very effective means for fire and rescue services (FRS) to reduce false alarms. This approach is covered further at **Section 7.6** of the report.

6.9 Live Investigations of False Fire Alarms (2015)

6.10 In December 2014, the SFRS teamed up with stakeholders from across the fire industry, to undertake a research project into the causes of false fire alarms, which aimed to reduce the number of UFAS across the UK.

6.11 The in-depth research was carried out by SFRS officers working alongside a fire detection specialist, to investigate false alarms as they occurred in the field in the Glasgow LSO area. Following a comprehensive investigation of each false alarm, a detailed online report was then completed by the investigator. During the four months that the project was running, 65 false alarm reports were completed, and these were analysed by the BRE and reviewed by the stakeholder group.

6.12 In 2015, the BRE and stakeholder group published the findings and 35 recommendations, that if implemented by the responsible organisations, could significantly reduce false alarm occurrences and subsequent UFAS call-outs occurring.

6.13 Of the 10 recommendations relevant to FRS's, SFRS have made progress in all with varying degrees of success (**Appendix 9**). In summary, three recommendations have been actioned and completed and three have either not been applied, or are awaiting changes from other organisations. The remaining four recommendations are in progress, or require ongoing monitoring/training.

6.14 Mott MacDonald - Managing Response to Unwanted Fire Alarm Signals (2008)

6.15 A comprehensive research study was undertaken by Mott MacDonald in 2008¹³ for the Communities and Local Government department and provides an in-depth analysis, focussing on the costs and benefits, for a range of alternative PDA response models for UFAS call-outs in England. It concluded that the best option was both time and risk based.

6.16 Her Majesty's Fire Service Inspectorate report into 'Managing Automatic Fire Alarms' recommended that SFRS take cognisance of the report findings and move to a consistent PDA response model for UFAS calls.

6.17 In 2018, the SFRS undertook work to assess the fit and viability of adopting the time and risk based PDA response model. Recommendations to move towards this model were approved by the Strategic Leadership Team (SLT) on 12 March 2018, and updates on plans for implementation were noted by the Service Delivery Committee at its meeting on 04 December 2018.

6.18 Adoption of the time and risk-based model is dependent on the implementation of the Systel Command and Control Mobilising System, which can adapt to variable UFAS PDA's. With the go live of this new system now planned for quarter one 2021, implementation of the time and risk-based model has been put on hold. A review is therefore advisable, given the decision to adopt this model was made almost 2 years ago, and the revised Systel go live date of quarter one 2021.

6.19 Managing Demand: Building Future Public Services

6.20 Public services continue to experience rising levels of demand for many reasons and the challenges associated with this, are leading local authorities and other public-sector organisations to understand and manage this demand more effectively. The SFRS devotes high levels of resources to tackling UFAS – a type of failure demand, which could be avoided by earlier interventions.

- 6.21 In their recent research report: *Managing Demand - Building Future Public Services*,¹⁴ the RSA (Royal Society for the encouragement of Arts, Manufactures and Commerce) examined emerging evidence of demand management thinking and approaches in local government, with the aim of compiling strategic approaches for managing the demand for public services in the future.
- 6.22 The report sets out underlying principles, frameworks and processes for demand management. Whilst these building blocks focus on developing a whole organisation approach to demand management, they may help the Service to think about demand management within the context of developing future innovative strategies for tackling the root cause of UFAS and their negative outcomes.

6.23 Key Findings

- Some good progress has been made in implementing the recommendations arising from the City of Glasgow Live Investigation into False Fire Alarms. The extent to which they are now operating and having impact, is something that has not yet been considered.
- The time and risk based PDA response model is an example of good practice for managing the impact of UFAS calls and resultant blue light journey's. The SFRS's plans to implement this model were put on hold approximately two years ago, pending implementation of the Systel Command and Control Mobilising System. Similar to the point raised regarding a Systel solution for accommodating the statistics required for reporting UFAS blue light journeys (**Section 4.12**), adoption of the time and risk based PDA response model is also dependant on the implementation of a Systel solution.
- The review identified other areas of research, that provide opportunities for further learning and future development of the UFAS Policy. *The Causes of Fire Alarms in Buildings and Managing Demand: Building Future Public Services*, offer up useful approaches and solutions that could guide future policy decisions for managing UFAS demand.

7 ALTERNATIVE APPROACHES EMPLOYED BY OTHER FIRE & RESCUE SERVICES

7.1 Reducing and managing UFAS incidents are clearly a challenge for FRS's across the UK, and other services have taken different approaches to tackling them with some success. An evaluation of these various approaches against the SFRS's would require appropriate appraisal criteria to be employed, and is therefore out-with the scope of this report. This section therefore provides a snap-shot of some of the alternatives being employed by other UK FRS's.

7.2 Findings: Reducing the Number of False Alarms and Subsequent UFAS

7.3 In England and Wales, an amendment to the Fire and Rescue Services Act 2004 allows for charges to be levied, under certain circumstances, where false fire alarm calls have been received.

7.4 In Scotland, the Scottish Government opened a consultation of the Fire Charging (Scotland) order 2005 and during their response to that consultation, excluded the idea of including charging for UFAS as part of that legislation.

7.5 London Fire Brigade, West Yorkshire and Northumberland FRS's have either implemented, or are in the process of implementing a charging scheme for UFAS call-outs. The charges applied and thresholds for implementing them vary across the services.

7.6 Buckinghamshire FRS employs a dedicated UFAS Auditing Officer, to monitor and investigate all UFAS activity. The officer applies appropriate UFAS interventions, ranging from immediate follow-up phone calls after crews have attended, to working with duty holders, on solutions that address UFAS over the medium to long term. This officer forms part of Buckinghamshire FRS's wider UFAS strategy which is recognised as good practice for reducing and managing UFAS demand (**Section 6.7**).

7.7 Findings: Reducing the Number of Appliances Attending UFAS Incidents

7.8 West Midlands FRS have introduced business support vehicles. Crewed by Fire Safety Enforcement Officers, these are utilised instead of the unnecessary mobilisation of operational crews during peak hours for UFAS call-outs. They will investigate the cause of the false alarm, engage with duty holders and offer on the spot advice, to prevent further activations.

7.9 South Wales FRS mobilise a single appliance during the day and a full PDA between the hours of 1800 to 08:00hrs.

7.10 Northumberland FRS do not mobilise to certain premises during the day and a full PDA between the hours of 1800 to 08:00hrs.

7.11 Essex FRS do not mobilise to certain premises and separate arrangements apply for attendances out-with normal business hours

7.12 Merseyside FRS do not mobilise regardless of time of day (with specific exemptions in place).

7.13 Key Findings

- Currently, there is no legislative basis for charges to be levied where false alarms lead to UFAS calls in Scotland. A considerable amount of time has lapsed since this option to levy in Scotland was consulted upon. During this period, various external factors (**Section 1.5**) have placed reducing UFAS demand into sharper focus.

- The dedicated UFAS Auditing Officer employed by Buckinghamshire FRS, to tackle the root causes of false alarms and reduce UFAS, is an example of good practice that could be considered by the SFRS. Employing such specialist officers was identified as a recommendation for addressing the issues around identifying the complex causes of false alarms in the Live Investigation of False Fire Alarms (**Section 6.9**).

- Some UK FRS's currently employ the time and risk-based PDA response model for managing their response to UFAS calls, or a variant of this model.

- Some UK FRS's do not mobilise to confirmed UFAS incidents, with various exemptions in place that reflect the outcome of individual FRS IRMP's.

8 CONCLUSIONS

- 8.1 The overall aim of the stocktake review was to help inform the evidence base for future UFAS policy direction. This report therefore brings together the outcomes of that review. It covers an evaluation of the effectiveness of the SFRS's overall arrangements for reducing and managing UFAS demand and reports on the findings and recommendations for improvement.
- 8.2 The review encountered a range of data limitations. These were addressed wherever possible through the support of PDS, and by obtaining further information and feedback from LSO areas, OC and staff within the P&P Function. Despite this support and assistance, information gaps remain, and in some areas of the review assumptions had to be drawn.

8.3 Summary of Key Findings

- 8.4 The national target of reducing UFAS by 15 percent between April 2017 and March 2020, will not be met by some margin. Information gathered during the review suggests the target was set without due consideration and understanding of all internal and external factors, including how the target would be delivered at local level (e.g. ensuring appropriate resource allocation).
- 8.5 The principle of engaging and building close working relationships with duty holders is a sound one but applying this principle through the application of a multi-stage action plan may be stifling effective communication and engagement, and needs reviewed.
- 8.6 Without improved support and better training and development for key staff, their ability to engage effectively and implement solutions for reducing UFAS could hinder future progress.
- 8.7 There has been limited sharing of UFAS good practice between LSO areas. Plans for mainstreaming UFAS national campaigns and sharing good practice are now being prioritised with some good examples emerging.
- 8.8 Current UFAS procedures are causing LSO areas, to spend a disproportionate amount of time administering the UFAS policy and procedures, rather than tackling the issue of reducing UFAS.
- 8.9 Blue light journeys are reducing through the application of the SFRS's current arrangements for reducing PDA's. Whilst this is viewed as a success, the review indicates challenges and limitations associated with the current arrangements covering OC call filtering processes and the PDA Reduction Matrix Procedures. If the SFRS desires greater reductions and improved outcomes, alternative models or policy changes need to be considered.
- 8.10 Overall arrangements for monitoring, recording and reporting UFAS are inadequate. At present, they are not achieving their intended purpose and compromised the ability to conduct a meaningful review in some areas.
- 8.11 There are a range of factors having a substantial impact on the ability of the URS to record and analyse UFAS activity and blue light journeys. Significant resources need to be invested in the URS, to enable it to operate effectively.

- 8.12 The partnership landscape at national level is a key strength of the existing UFAS arrangements and should be exploited when developing future policy arrangements for reducing and managing UFAS demand.
- 8.13 Delays in implementing the System Mobilising System, risks undermining the development of future UFAS arrangements (e.g. time and risk based response model).
- 8.14 The SFRS is learning from key research, and there are opportunities for more learning. For example, Managing Demand: Building Future Public Services, offers up useful approaches and solutions that could guide future policy decisions for reducing and managing UFAS demand.
- 8.15 The various UFAS approaches employed by other FRS's, provide useful insights into what may work within the SFRS, and could act as a starting point for considering alternative approaches going forward.

9 RECOMMENDATIONS

- 9.1 Based on the findings of this Stocktake Review, a total of 20 recommendations are being proposed by the UFAS Working Group, and are subdivided into the following three categories for consideration.
- 9.2 **Recommendations for Improvement.** These 13 recommendations are limited to improving the SFRS's existing UFAS approaches, using the current resource allocation and partnership working relationships. If implemented, the recommendations are intended to lead to improved support, and working in a more integrated and coordinated manner, but are unlikely to address the longer-term challenges of tackling UFAS demand.
- 9.3 **Recommendations for Change.** These five recommendations are proposals for transforming the SFRS's UFAS approaches. Rather than trying to fix what we currently have (**Section 9.2**), the recommendations propose exploring innovative solutions, evaluating policy changes and resource allocation, and identifying opportunities for strengthening our partnerships. If implemented, the aim is to tackle rising levels of UFAS by understanding UFAS demand more effectively, and targeting resources more effectively.
- 9.4 **Recommendations for Implementing Change.** These two recommendations require considering should the recommendations for change be implemented. If implemented, the recommendations are intended to ensure any change is well managed.

9.5 Recommendations for Improvement

- 9.6 Working with PDS, ensure that in setting the UFAS target within the next iteration of the PMF there is due consideration of the full range of internal and external factors, and that this is underpinned by robust forecasting techniques.
- 9.7 Working with the Service Delivery Areas, ensure through the process of reviewing current Local Fire and Rescue Plans there is sufficient focus placed on reducing UFAS at local level. In particular, within Glasgow City and City of Edinburgh where the biggest proportion of UFAS exists.
- 9.8 Expedite plans to review the role of the UFAS Champion and re-focus the purpose of the UFAS Champions National Forum on mainstreaming good practice and enabling UFAS Champions to perform their role effectively. UFAS Champions and the National Forum are key enablers to driving down UFAS demand and delivering successful change going forward.
- 9.9 Working with Service Delivery and training colleagues, develop a training module to support frontline crews to engage effectively with duty holders. This has been planned since November 2015 and needs to be prioritised in support of enabling front line staff, to perform their important role as the first line of defence in preventing further UFAS calls.
- 9.10 Ensure that LSO areas are sufficiently briefed and supported before and during the roll-out of the BE AWARE campaign, scheduled to run nationally during March 2020, then implemented locally from April 2020 onwards. This should be coordinated through the UFAS Champions National Forum, and local implementation monitored by the Forum thereafter.

- 9.11 Working with OC, identify and address inconsistencies in the application of the current UFAS call filtering process across the three OC's, through further training and awareness. Also, explore opportunities to increase the effectiveness of filtering (e.g. reviewing the questioning of AFA callers).
- 9.12 Revise the current UFAS PDA Reduction Matrix Procedures, so that LSO areas have the flexibility to adopt a thematic approach to identifying low risk premises and consider extending the procedures to certain sleeping risk premises. In the short term, this will give LSO areas the flexibility to apply the procedures to more premises.
- 9.13 Ensure that representation on the NHS FSAG is sufficient and consistent, and that working together on addressing UFAS demand in healthcare premises is a key priority of the group going forward. Whilst the NHHS's position statement on staff alarms is viewed as a barrier to reducing UFAS, it should also be considered as an opportunity to review and strengthen the groups approach to reducing UFAS demand.
- 9.14 Use the UFAS iHub and UFAS Champions National Forum, to promote the use of staff alarms and the six most effective physical interventions for reducing false alarms and subsequent UFAS.
- 9.15 Ensure recommendations from the Glasgow Live Investigation have been implemented or fully considered, and review their impact taking into account the findings of the Stocktake Review Report.
- 9.16 Identify 'quick wins' for simplifying administrative processes and standardising methods of recording, so UFAS procedures can be delivered more efficiently, reducing the burden placed on LSO areas.
- 9.17 Working with ICT, and PDS, estimate the time and level of resources required to bring URS up to a level where it's operating effectively, and assess the impact of withdrawing the system from use.
- 9.18 Working with R&R, confirm timescales for implementing the Systel Mobilising System and clarify the Systel solutions for accommodating UFAS mobilising and statistical reporting requirements. It's important to know this as soon as possible, for informing decisions around how UFAS is managed going forward.

9.19 **Recommendations for Change**

- 9.20 Working with the BEF, consolidate existing research and, if necessary conduct further research into the external factors and behaviours contributing to rising UFAS numbers. The findings of this research will help to better understand areas and causes of UFAS growth, and identify solutions.
- 9.21 Working with key internal and external stakeholders, develop a UFAS Demand Management Framework that integrates key strategies, including:
- Resource allocation.
 - partnership working.
 - Communication and engagement.

Based on a better understanding of what UFAS demand looks like from research, the framework will give clarity and cohesiveness to what the SFRS and partners need to do, to tackle the longer-term challenges of tackling UFAS demand, and how they will organise themselves accordingly.

- 9.22 In developing an effective resource allocation strategy, work with R&R to evaluate the following policy changes:
- Employing dedicated UFAS investigation Officers, to work in LSO areas where the greatest demand for UFAS exists.
 - Implementing a time and risk based PDA response model.
 - Mobilising one appliance (instead of two appliances) to confirmed UFAS calls at sleeping risk premises, or exploring the option of mobilising no appliances to confirmed UFAS calls (with certain exemptions).
 - Implementing all, or a combination of the above options.
- 9.23 In developing an effective partnership working strategy, use this as an opportunity to:
- Future proof the current partnership profile at national level, with a view to ensuring it's the best fit for meeting intended outcomes going forward.
 - Secure a commitment to reducing UFAS, from the bodies that have oversight of the organisations with the worst records for UFAS call-outs (e.g. NHS Scotland – Hospitals, Care Inspectorate – Residential Care Homes, Education Scotland – Schools).
 - Work with Scottish Government, to evaluate the impact of call charging in England and the practicalities of re-opening a consultation on amending legislation, to allow for charges to be levied for UFAS calls in Scotland.
- 9.24 In developing an effective communication and engagement strategy, work with the SFRS Communications and Engagement Team to explore the most effective methods for engaging and communicating with duty holders and other people who have the greatest influence over making changes to a premises, or organisations overall fire strategy.

9.25 **Recommendations for Implementing Change**

- 9.26 Managing the change from current UFAS approaches to what's being proposed at Section 9.19, will require careful planning and coordination. A transition plan detailing the incremental changes and agreed timeframes should therefore be developed and project managed accordingly.
- 9.27 Given the level of change being proposed and timescales for completion, consideration should be given to forming a UFAS Review Project Board. The purpose of this Board would be to provide leadership focus, overview and drive in support of implementing the recommendations. The Board would have a focus on prioritisation, management of interdependencies, risk and identifying lessons learned.

APPENDICES

- Appendix 1: Example of a Good Working Relationship in Action, and UFAS Champions LSO Structure
- Appendix 2: Example of Staff Alarm Good Practice
- Appendix 3: Example of Multi-Criteria Detection Good Practice
- Appendix 4: NHS Scotland Position Statement on Staff Alarms
- Appendix 5: Take 5 National Campaign
- Appendix 6: Be Aware National Campaign
- Appendix 7: SBRC Scottish Business Resilience Awards
- Appendix 8: SFRS Position Statement on BRE Study – Live Investigation of False Fire Alarms (2015)

END NOTES

- ¹ UFAS Facts and Figures for Businesses, SFRS Website, 2019
- ² SFRS, P&P, Fire Safety Enforcement, UFAS Incident Policy, and UFAS Incident Procedures November 2012
- ³ Managing Automatic Fire Signals 2015, SFRS, HM Fire Service Inspectorate
- ⁴ Live Investigation of False Fire Alarms, British Research Establishment (BRE), April 2015
- ⁵ Fire and Rescue Framework for Scotland 2016, Scottish Government, 01 September 2016
- ⁶ SFRS, P&P, Fire Safety Enforcement, UFAS PDA Risk Reduction Matrix, April 2016
- ⁷ Performance management framework 2018, report to the board of the SFRS, February 2018
- ⁸ SFRS Strategic Plan 2019-2022, October 2019
- ⁹ Performance management framework 2018, report to the board of the SFRS, February 2018
- ¹⁰ SLT Report, UFAS Policy and Procedure Implementation Review, 23 November 2015
- ¹¹ Managing Demand: Building Future Public Services, RSA
- ¹² The Causes of False Fire Alarm in Buildings, British Research Institute (BRE), 2014
- ¹³ Costs and benefits of alternative responses to Automatic Fire Alarms, DCLG, 2008
- ¹⁴ Managing Demand: Building Future Public Services, RSA

UNWANTED FIRE ALARM SIGNALS

EVALUATION OF GOOD PRACTICE



SCOTTISH
FIRE AND RESCUE SERVICE
Working together for a safer Scotland

Please use this template to structure all UFAS Good Practice Evaluations, providing as much relevant information as possible.

Name and Timescales

Perth & Kinross, Angus and Dundee LSO Area UFAS Reduction Initiative –

This initiative has been ongoing since March 2018:

- March 2018 – Research and evidence gathering
- From April 2018 to January 2019 – Engagement with management of premises
- January 2019 to January 2020 – 1 Year monitoring period
- April 2020 – Review (ongoing)

The initiative has now entered the review period following one full year operating under new procedures.

Summary

The initiative was set up due to the large amount of UFAS calls the SFRS was receiving across three separate premises within the City of Dundee.

The premises are owned by Transform which is an organisation that provides temporary accommodation and care to the homeless and those individuals who have not had their needs met by other organisations. Most individuals are classed as vulnerable and have challenging behavioural and underlying health issues.

It is worth noting the three premises offer different accommodation to meet the needs of the resident which can be summarised as follows:

- Soapwork Lane – HMO premises for homeless people. (short term)
- Brewery Lane – Self-catering for persons with drug/alcohol addiction. (1/2 way house)
- Sugarhouse Wynd – HMO premises providing long term limited supervision for persons with mental health issues.

UFAS calls between these three premises was having a considerable impact on UFAS activity within the City of Dundee - approximately 10% of all calls received within the city across a fiscal year.

We engaged with the local Managers and provided information to reduce UFAS calls, but due to the client profile and local managers not deviating from their policy which was to automatically call the fire service with no investigation protocol, this was having very little effect on the amount of calls being received and the subsequent demand placed upon SFRS.

Therefore, it was necessary to seek engagement with a higher level of management when we fully explained the consequences of UFAS calls not only upon their own service provision but the significance SFRS. Senior managers consequently changed their own departmental plans to include the implementation of an investigation procedure by local staff prior to calling the SFRS.

Description of Initiative

Dundee City is served by three wholetime and one wholetime/retained station. All three of the *Transform* premises are located within the vicinity of Blackness Fire Station and the demand placed on this one fire station by UFAS calls is considerable and places a considerable impact on training and resources.

The *Transform* policy was for staff to dial 999 immediately and not to investigate any cause of the activation. SFRS had attempted to engage with local managers over a long period of time to reduce the activations, however, this engagement proved unsuccessful and staff were reluctant to investigate as they felt they were being put at risk by a potential fire situation. Moreover, the vulnerable nature of residents brought an additional element of concern to staff.

It was therefore proposed that the introduction of an investigation period would prevent the mobilisation of SFRS resources but that this would have to be reinforced with the education of staff supported by SFRS.

A series of meetings was arranged between FSEOs, Station Commander and Senior Managers from *Transform* and a change in policy was recommended. Staff were reluctant to amend this locally and further meetings were held with the Operations Manager and Area manager from *Transform* to promote this change. A summary of the options that were put to Senior Managers to prevent UFAS activations are summarised as follows:

- Creation of a plan to investigate the cause of activation (Investigation period)
- Regular cleaning of cooking facilities in all premises.
- Cooking facilities are turned off during evening hours.
- Banning of smoking within premises and provision of outside shelter
- Installation of multi criteria AFD and addressable fire panels (dependant on budgetary constraints).
- Education of passive fire protection within all three premises.

As analyses of the UFAs activations over a period of years highlighted that human factors were the cause of a large percentage of the calls received, senior management were supportive to all the above recommendations and regular support meetings arranged between FSEOs and the local Station Commander.

It was also extremely important to highlight to those senior managers the impact that UFAs activations were having not only on SFRS but to their own organisation, therefore, SFRS personnel supplied incident data which showed the demand placed on services over several years. As Senior Managers had been unaware of this impact, this information was instrumental in a better reporting mechanism being put in place locally.

Aims and Objectives

Scottish Fire and Rescue Service Strategic Plan 2019-2022

Objective 1.4 – We will respond appropriately to unwanted fire alarm signals and work with our partners to reduce and manage their impact on businesses, communities and our service.

The reduction of Unwanted Fire Alarm Signals has been designated as Priority 8 within the Strategic Plan 2019-2022.

Local Fire and Rescue Plan for Dundee City 2017 - Priority 4 – Reduce Unwanted Fire Alarms Signals.

We will seek to reduce the instances of Unwanted Fire Alarm Signals by:

- *Investigate the cause of every UFAS event and engage with the premises owner/occupier, to agree measures for preventing reoccurrence.*
- *Identify the premises that have persistent call outs due to UFAS, and work with the owner/occupiers to develop, implement and monitor UFAS demand reduction plans.*

Progress will be monitored by:

- *Reviewing the number of UFAS and the type of premises generating them across Dundee.*
- *Evaluating the outcomes of occupiers' demand reduction plans to review progress and identify and share good practice.*
- *Monitoring attendances at UFAS to ensure our attendances are based on an assessment of risk and demand.*

By achieving a reduction in Unwanted Fire Alarm Signals, we will:

- *Minimise the disruption to business and service continuity across the city of Dundee*
- *Increase the capacity of SFRS to carry out other activities.*
- *Reduce the risk to firefighters and public whilst responding to UFAS incidents.*

As a statutory partner of the Dundee Partnership, we will fully contribute towards improving the local outcomes described in the City Plan for Dundee 2017-2026, and help take forward the priorities contained within our Locality Plans. Our work towards supporting this, sits within the context of the Dundee Local Fire and Rescue Plan 2017.

Partner organisations plans and strategies that will have an influence on our work include SFRS Delivery Properties – Priority 7, Reduction of Unwanted Fire Alarm Signals.

Environmental

Support the ambitions of the *Scottish Fire and Rescue Service Change Response Plan 2045* (currently in draft form).

Work towards the objectives contained within *Scottish Fire and Rescue Service Carbon Management Plan 2020-2025* (publish 2020).

Other outcomes will include:

- Improved partnership working
- Influencing policy within another organisation
- Better understanding of each other's services

Delivery

Following several discussions with Senior Managers at *Transform* they agreed to adopt an investigation period:

- Alarm systems within premises would still activate with no change to evacuation procedures already adopted, therefore no risk to persons within premises.
- Staff given training on new procedures. Requires staff to manually call SFRS where fire is confirmed during occupation.

Training and information was provided on the new procedure to all staff during the forming and implementation period. This was carried out by the Operations Manager, it was important that SFRS supported this initiative. Regular support meetings and audits were carried out to provide reassurance that the change in policy did not increase the risk to residents.

Resources

The were no fiscal implications for the SFRS the only impact was time spent engaging with staff from the Transform organisation.

Evaluation and Outcomes

Following the implementation of the investigation period and the education of staff (January 2019) this has had a positive impact, there has been a significant reduction in calls received. The table below highlights the significant impact this initiative has had on UFAs calls received to all three premises.

Fiscal Year	Soapwork Lane	Brewery Lane	Sugarhouse Wynd
2015-16	57	50	14
2016-17	59	43	13
2017-18	76	63	23
2018-19	38	21	26
2019-20	2	0	0

Analysis of the two UFAS incidents attended by SFRS at Soapwork Lane, were caused by cooking and smoking.

The reduction in UFAS incidents at Transforms premises:

- Reduced the number of blue light journeys.
- Reduced risk to attending crews and other road users.
- Reduced the disruption to residents and staff attributed to the investigation process.
- Reduced carbon footprint from emissions.
- Reduces the potential of complacency with staff.

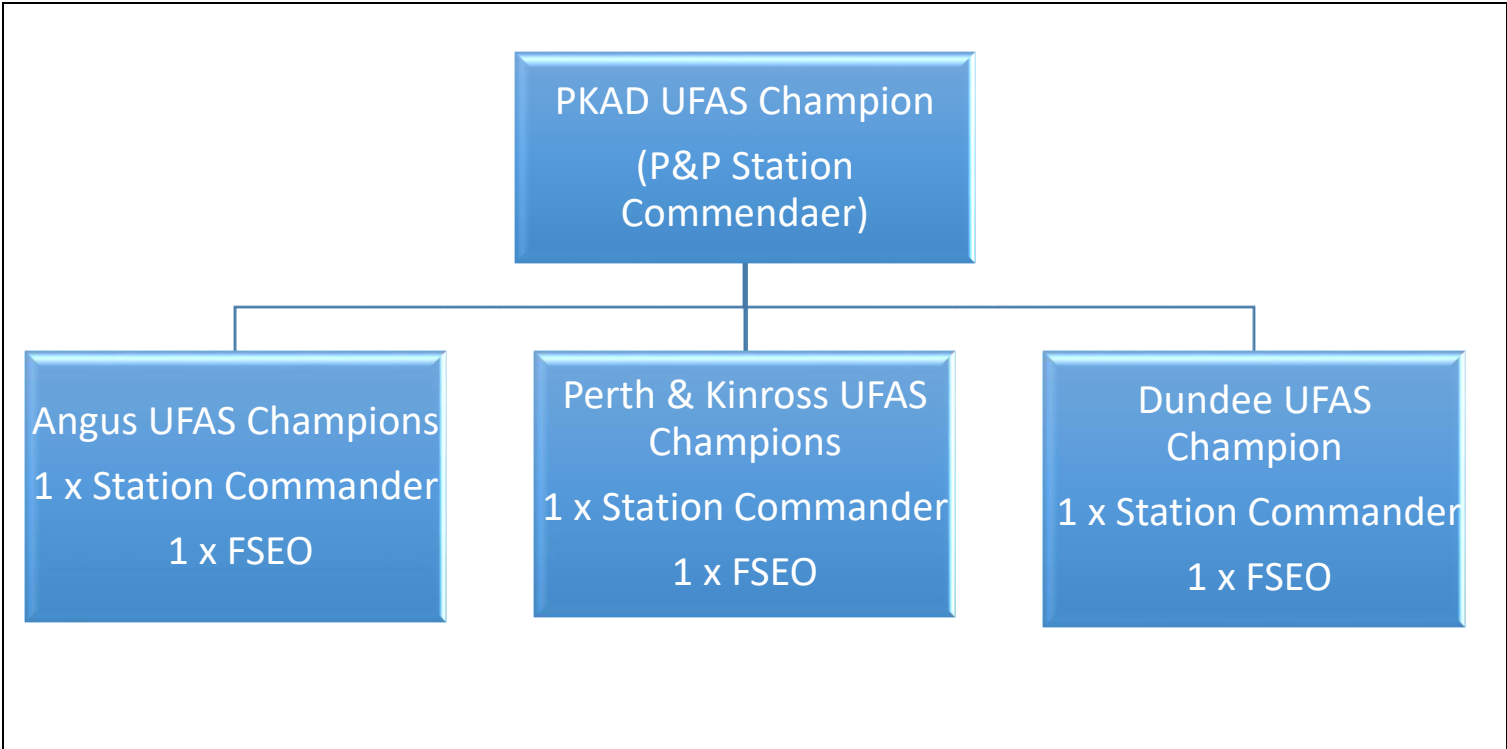
Although UFAS has been considerably reduced, the emphasis has always been on reducing the number of alarm activations on site and providing support and guidance to *Transform* management. Work continues with the recent fitting of a new fire alarm system within Sugarhouse Wynd premises which incorporates multi-criteria detectors. Staff have embraced the new policy which requires them to carry out an initial investigation prior to dialling 999 despite initial reservations from some members of staff. The management are still resisting the banning of smoking within the premises and have not provided smoking shelters. There is hope that the FSEO can convince them otherwise.

Lessons Learned

A strategy should be formed for dealing with repeat offenders of UFAS, this initially should be formed within the LSO structure with existing resources. The structure shown below has been formed within the PKAD LSO area which allocates specific resources within each Locality. A UFAS forum meets on a quarterly basis to discuss UFAS activity across the service delivery area, where required an **action plan** is produced to track duty holder engagement/progress and monitor activity, an example of this is attached in a separate document (**Appendix A**).

All UFAS engagement activity that we carry out is also logged on a separate spreadsheet.

The forum is chaired by the PKAD UFAS champion who has nominated a UFAS champion for each Local Authority area. The UFAS champion monitors all activity within their respective areas and where applicable, challenges UFAS activity with the duty holders. To support this engagement each UFAS champion has been allocated a FSEO to offer technical advice to ensure that the appropriate technical advice is given to the respective duty holders.



Additional Information

Building relationship with stakeholders is key to achieving success. We have formed a number of partnerships with key offenders of UFAS and have a series of action plans and regular meetings with Managers across several organisations, some of which are given further support by FSEOs who have carried out audits which support duty holders in their quest to introduce some of our initiatives, but also alleviates any fear that the duty holders may have by introducing new initiatives to reduce UFASs

SFRS will continue to engage with duty holders of all high UFAS reporting premises regardless of premises type to reduce the demand placed upon SFRS and other businesses

<i>Name of Author:</i> Station Commander Steve Low	<i>Date submitted:</i> 6 January 2020
<i>Date Initiative was Reviewed:</i> January 2020	<i>Date Submitted Following Review:</i>

This evaluation report will be made available on the UFAS Good Practice iHub Section, in order that successful initiatives can be shared across the service. Please review and update this evaluation report on a regular basis.

UNWANTED FIRE ALARM SIGNALS

EVALUATION OF GOOD PRACTICE



SCOTTISH
FIRE AND RESCUE SERVICE
Working together for a safer Scotland

Please use this template to structure all UFAS Good Practice Evaluations, providing as much relevant information as possible.

Name and Timescales

Dumfries & Galloway Education Premises UFAS Reduction Initiative

This initiative is ongoing and comprises 4 specific time periods:

- April 2017 – March 2018 – Research and evidence gathering
- April 2018 to November 2018 – Forming and Implementation
- December 2018 to November 2019 – 1 Year monitoring period
- December 2019 to March 2020 - Review

This initiative has now entered the Review period following 1 full year operating under new procedures.

Summary

This is a joint initiative between Dumfries and Galloway Council – Education Department and Scottish Fire and Rescue Service and focusses on reducing UFAS incidents within the 115 Local Authority Schools.

Staff alarms could not be implemented within the 21 school premises linked to the alarm receiving centre due to technical constraints, therefore, an alternative procedure was employed that still mirrored a staff alarm but ensured occupant safety during operating hours and property safety at all other times was maintained.

Description of Initiative

It became apparent within Dumfries and Galloway LSO area that UFAS in education premises was very high and was still increasing every year. During 2017-18, of the 540 UFAS recorded there were 91 UFAS incidents in primary and secondary schools. Education type premises was by far the largest premises type reporter within the area.

Of the 115 school premises only 21 were directly linked to an alarm receiving centre and it was noted that all UFAS was attributed to at least one of these 21 schools. Of the 21 linked schools, 12 are owned by the Local Authority and 9 are PFI type schools. *This initiative only covers the 12 Local Authority owned schools.*

It was established that staff alarms were not possible due to operating and technical constraints within the alarm receiving centre. This service is provided by 'Care Call', an in-house service provided by D&G Council. Any solution to the UFAS issue had to be sought through other avenues.

Upon further investigation of 2017-18 statistics it was evident that the majority of UFAS occurred during operating hours and from Monday to Friday during term time (see fig.1). When investigating 'alarm type', 41 of the 91 incidents recorded were attributed to human interaction and, most of the remaining 50

UFAS may have been prevented had human interaction been instigated i.e. manage situation and investigate if the chance had been given.

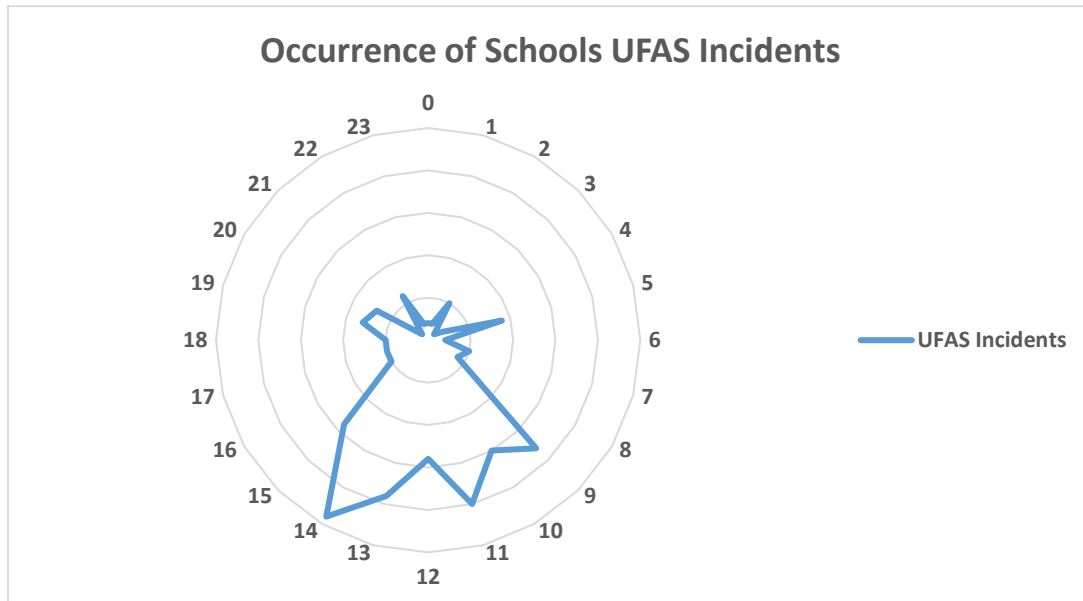


Figure 1- UFAS time trends at education premises in Dumfries and Galloway 2017-18

With this information, the Director for Education in D&G and SFRS entered discussions to address the very high and still rising number of UFAS. A working group was formed which met frequently between April 2018 and November 2018.

Aims and Objectives

Outcomes of this initiative will meet the following:

Scottish Fire and Rescue Service Strategic Plan 2019-2022

Objective 1.4 – We will respond appropriately to unwanted fire alarm signals and work with our partners to reduce and manage their impact on businesses, communities and our service.

The reduction of Unwanted Fire Alarm Signals has been designated as Priority 8 within the Strategic Plan 2019-2022.

Local Fire and Rescue Plan for Dumfries and Galloway 2017

Priority 5 – Unwanted Fire Alarms

We will seek to reduce the instances of Unwanted Fire Alarm Signals by:

- *Investigating every cause of alarm and engaging with those responsible for fire warning systems following an operational attendance at a UFAS incident.*
- *Analysing our UFAS attendances at those premises that give cause to frequent generation of false alarms to identify trends and support occupiers to develop demand reduction plans.*
- *Instigating where required, formal fire safety enforcement measures to ensure appropriate demand reduction action is taken by those responsible for premises generating unacceptable levels of false alarms.*

We will monitor the effectiveness of mobilising to Unwanted Fire Alarm Signals by:

- *Reviewing the number of attendances at non-domestic premises and the type of premises generating unwanted false alarm signals across Dumfries and Galloway.*
- *Evaluating the outcomes of occupier's demand reduction plans to review progress and identify and share good practice.*
- *Reviewing our attendances at UFAS incidents to ensure our attendances are based on an assessment of risk and demand.*

By achieving a reduction in Unwanted Fire Alarm Signals, we will:

- *Minimise the disruption to business and service continuity across Dumfries and Galloway.*
- *Increase the capacity of the fire and rescue service to carry out other activities.*
- *Reduce the risk to firefighters and public whilst responding to UFAS incidents.*

Dumfries and Galloway Local Outcomes Improvement Plan 2017-2027

Priority 6 – People are Safe and Feel Well.

Partner organisations plans and strategies that will have an influence on our work include SFRS Delivery Properties – Priority 7, Reduction of Unwanted Fire Alarm Signals.

Environmental

Support the ambitions of the *Scottish Fire and Rescue Service Change Response Plan 2045* (currently in draft form)

Work towards the objectives contained within *Scottish Fire and Rescue Service Carbon Management Plan 2020-2025* (publish 2020)

Delivery

Following discussions, Education stated that they would adopt a variation of the staff alarm. Instead of the receiving centre contacting SFRS after a set period of time, the larger local authority owned (not PFI) schools would be isolated from the alarm receiving centre during hours of occupation.

- Alarm system isolated from alarm receiving centre between 08:00 and 16:00, Monday to Friday.
- The system would be connected to the alarm receiving centre from 16:00 to 08:00 on week nights, all weekend and during holidays and end of term to ensure full operation when not occupied or when occupancy within a building is reduced. This is done automatically to prevent human error.
- Alarm systems within premises would still activate with no change to evacuation procedures already adopted, therefore no risk to persons within premises.
- School staff given training on new procedures. Requires staff to manually call SFRS where fire is confirmed during occupation time. This is the only change to the previous process.

Training and information was given on the new procedure to school staff during the forming and implementation period. This was conducted by D&G Education Department.

Resources

Apart from the time taken during meetings, the creation of a new procedure, implementing this procedure and informing personnel at the 12 schools affected by the change in procedure, there were

no additional costs involved or resources required to implement this initiative. Personnel costs highlighted were absorbed into the everyday budget.

Evaluation and Outcomes

Following conclusion of the 1-year monitoring period (1st December 2018 to 30th November 2019) the total number of UFAS recorded at both primary and secondary schools within Dumfries and Galloway (Local Authority and PFI) was 37 for this period. **The total UFAS has reduced by 59% in all school premises compared to the 2017-18 figures that were the catalyst for this initiative** (see table 2).

Table 1- Monthly UFAS figures for schools in Dumfries and Galloway

	2016	2017	2018	2019
January	13	7	7	1
February	6	5	6	2
March	3	5	5	1
April	7	1	6	1
May	4	7	9	4
June	5	9	6	5
July	4	6	5	4
August	7	11	8	5
September	13	7	3	1
October	7	13	5	5
November	6	12	6	1
December	4	7	7	-

*Grey area shows statistics for 2017-18 financial year.
Green area shows statistics for implementation 1-year monitoring period.*

Analysis of the 37 UFAS incidents attended by SFRS at schools within D&G shows:

- 17 Premises attended were PFI operated schools and 20 were Local Authority.
- 12 UFAS were premises with single activations with remaining 25 UFAS attributed to 8 schools (Repeat Reporters).
- 25 of 37 UFAS were out of school operating hours.
- Of the 12 UFAS occurring during operating hours, 10 of those came from PFI operated schools with only 2 from Local Authority schools.
- From the 2 UFAS occurring at Local Authority schools during operating hours, one was attributed to a school not linked to a call receiving centre and the other attributed to a school linked to the call receiving centre but was called in manually as per the new procedure. The SFRS were notified on both occasions as a precautionary measure.
- Under the new procedure adopted there is a slight increase in UFAS during summer and October school holidays. This is expected as alarm systems are connected during holiday periods.

The reduction in UFAS incidents at schools has:

- Reduced the number of blue light journeys,
- Reduced risk to attending crews and other road users,
- Reduced the risk to pupils and staff attributed to fire appliances attending premises,
- Reduced carbon footprint from emissions,
- Reduced costs attributed to RDS mobilisations that could be used more effectively in other areas.

It is believed fewer UFAS may also improve retention of RDS personnel by reducing the impact to local businesses when staff are called out.

Teachers have advised that the impact to schools during an alarm activation has been reduced. Also, that schools are able to return to normal quicker than if fire service crews were attending. Further research is required to substantiate this claim. This will be conducted during the review phase of the initiative.

Lessons Learned

Research into historical data of UFAS in education premises allowed a more focused initiative to be formed, reducing unnecessary work whilst resulting in greater reduction impacts.

Following an effective review process, it is anticipated that this initiative can be adopted in other Dumfries and Galloway Council premises types (not sleeping risk).

Additional Information

Although PFI owned schools were not part of this initiative a 3-point plan was agreed between school owners/operators and the SFRS to work together further to continue to reduce UFAS in this area.

SFRS will continue to engage with duty holders of all high reporter premises regardless of premises type to reduce UFAS. This includes education premises within this initiative.

<i>Name of Author:</i> Station Commander Ian Anderson	<i>Date submitted:</i> 11 th December 2019
<i>Date Initiative was Reviewed:</i> December 2019	<i>Date Submitted Following Review:</i>

This evaluation report will be made available on the UFAS Good Practice iHub Section, in order that successful initiatives can be shared across the service. Please review and update this evaluation report on a regular basis.

UNWANTED FIRE ALARM SIGNALS

GOOD PRACTICE



Please use this template to structure all UFAS Good Practice Evaluations, providing as much relevant information as possible, this will assist other areas to replicate results of the initiative.

The current wording in each box is for guidance, areas are expected to fill the boxes in with narrative.

Summary

Perth & Kinross, Angus and Dundee LSO Area UFAS Reduction Initiative –

This initiative has been ongoing since January 2016:

- January 2016 – Initial meetings to discuss impact of UFAS
- March 2016 Ongoing engagement with onsite Managers
- October 2016 – October 2017 – 1 Year monitoring period
- April 2020 – Review (ongoing)

Working in partnership with Sanctuary Management, which is an organisation that manages student accommodation on behalf of Dundee University and Dundee City Council, this **Sleeping Accommodation** initiative has now entered the review period following one full year operating under new procedures.

UFAS was having a considerable impact upon the students, site security staff, management and SFRS. **Multi-criteria detection** was used as the main method for reducing UFAS calls.

Background to the Initiative

Dundee has the largest proportional student population in Scotland. Over the years, the Universities along with Dundee City Council have constructed a large amount of student accommodation blocks, namely halls of residences, which have historically had a large proportion of UFAS calls across the city.

UFAS calls to student halls of residences account for approximately 14% of all calls within the Dundee City ward boundary.

- Dundee City average annual UFAS calls = 1289
- Student Halls of Residence UFAS calls = 173 = 14%

The initiative was set up to enable us to combat the issue by building relationships with key members of staff who have the responsibility to implement plans that we recommend.

Specific aims and objectives

Local Fire and Rescue Plan for Dundee City 2017 - Priority 4 – Reduce Unwanted Fire Alarms Signals.

We will seek to reduce the instances of UFAS by:

- Investigating the cause of every UFAS event and engage with the premises owner/occupier, to agree measures for preventing reoccurrence.

- Identifying the premises that have persistent call outs due to UFAS, and work with the owner/occupiers to develop, implement and monitor UFAS demand reduction plans.

Progress will be monitored by:

- Reviewing the number of UFAS and the type of premises generating them across Dundee.
- Evaluating the outcomes of occupiers' demand reduction plans to review progress and identify and share good practice.
- Monitoring attendances at UFAS to ensure our attendances are based on an assessment of risk and demand.

By achieving a reduction in Unwanted Fire Alarm Signals, we will:

- Minimise the disruption to business and service continuity across the city of Dundee
- Increase the capacity of SFRS to carry out other activities.
- Reduce the risk to firefighters and public whilst responding to UFAS incidents.

Details of the Initiative

A series of meetings was arranged between the P&P manager and the local Managers from Sanctuary Housing, where we provided information to reduce UFAs calls. This included the LALO team engaging with students during the fresher's week, which included sharing and implementing the TAKE5 initiative and more recently the BE AWARE initiative. This information is shared within the students welcome pack and notice boards.

SFRS FSEO's re-iterated the replacement of the current smoke detection system with **multi-criteria detectors**. This was identified by SFRS, as the most effective method for reducing false alarms and subsequent UFAS calls.

It's worth noting that most rooms within the student's halls of residences are relatively small - causing UFAS activations was relatively easy to do whilst the residents were going around their daily business, most of the calls were preventable and not malicious.

An analysis of the UFAS activations over a period of years highlighted that human factors were the cause of a large percentage of the calls received, Sanctuary Housing were supportive of all the above recommendations, and regular support meetings were arranged between FSEOs and the P&P manager. Sanctuary Housing had applied to the University to secure funding to upgrade the AFD system which was agreed in principal.

It was also extremely important to highlight to Sanctuary Housing managers the impact of UFAS activations on the SFRS and their own staff. Therefore, SFRS personnel supplied incident data which showed the demand placed on services over several years.

Evaluation, Outcomes

Following the upgrade of the AFD system (October 2016) there has been a significant reduction in UFAS calls. The table below highlights the impact this initiative has had on UFAS calls.

Fiscal Year	No of UFAS Calls
2014/15	51
2015/16	39
2016/17	16
2017/18	13
2018/19	9

It can clearly be seen from the table above that the installation of **multi-criteria detectors** has made a significant impact upon UFAS activations across the student's halls of residences at Belmont Tower, the row highlighted, indicates the period when the AFD system was upgraded to **multi-criteria detectors**.

The reduction in UFAS incidents at Belmont Tower premises:

- Reduced the number of blue light journeys.
- Reduced risk to attending crews and other road users.
- Reduced the disruption to residents and staff attributed to the investigation process.
- Reduced carbon footprint from emissions.
- Reduces the potential of complacency with staff.

Lessons Learned

Building relationships with key stakeholders is key to achieving success. Fully supporting them along the journey also gives them confidence, whilst recognising success.

Additional Information

Due to the success of the initiative the University have a programme of works scheduled over the next four years, to renew all AFD systems and phase-in **multi-criteria detection** within their halls of residence's.

Author and Contact Details

<i>Name of Author:</i> Station Commander Steve Low	<i>Date Submitted:</i> 04 February 2020
<i>Date Initiative was Reviewed:</i> January 2020	<i>Date Submitted Following Review:</i>

Unwanted Fire Alarm Signals

Position statement



Unwanted Fire Alarm Signals

NHSScotland (NHSS) recognise the disruptive effect of Unwanted Fire Alarm Signals (UFAS) on service delivery and are fully committed to reducing their occurrence as far as is reasonably practicable.

NHSS Boards continue to actively engage with the Scottish Fire and Rescue Service (SFRS) and have acted on their guidance in an attempt to reduce UFAS; however we recognise that the instance of recorded UFAS has not significantly reduced over the last five years.

SFRS are actively seeking a reduction of UFAS in healthcare premises and in some cases are advocating a pre investigation system whereby the alarm signal to the fire service is delayed whilst an investigation takes place into the cause of the alarm activation.

In line with guidance in 'Firecode', Building Standards and British Standards, NHSS is of the opinion that such a delay is not appropriate for hospitals and other premises with in-patient facilities due to the vulnerability of the occupants, therefore Health Facilities Scotland (HFS) and the Fire Safety Advisory Group (FSAG) advise NHSS Boards that they should not subscribe to such a scheme.

Boards may wish to consider a delayed call to the fire service, particularly in small health centres or in buildings that do not provide healthcare facilities such as office premises. There are a number of considerations that must be taken into account prior to making a decision including, size and occupancy of premises, fire alarm system compatibility, medical procedures that are undertaken, staff training required and societal importance of the facility.

SFPN 11; Reducing Unwanted Fire Signals in Healthcare Premises: provides specific guidance on the actions to take if a call delay to the Fire and Rescue Service is implemented.

HFS and the FSAG have been investigating methods to reduce UFAS and the recently issued national fire safety awareness e-learning training programme has a specific focus on this area, (available via the national learn pro catalogue).

In addition to this work the 3i fire risk manager recording system is being amended and will include an easily accessible and 'user friendly' UFAS reporting portal that will assist Boards to identify trends relating to UFAS and therefore assist in deciding actions that should be taken relating to this matter.

A significant reduction in UFAS can be achieved by replacing smoke detectors with multi criteria detectors where the occurrence is related to aerosols, steam, smoking or vaping fumes and where the number of UFAS is high this could be considered, balanced with practical considerations and cost affordability.

Other methods of UFAS reduction should be discussed with Boards fire safety advisors and further information is available in SHTM 83 Pt 2: Fire Safety Training and SFPN 11: Reducing Unwanted Fire Signals in Healthcare Premises.

Any queries should be sent to;

National Fire Safety Advisor

Health Facilities Scotland

Meridian Court

5 Cadogan St.

Glasgow

G2 6QE

phone: 0141 207 1600

e mail: nss.hfsenquiries@nhs.net

TAKE 5



to reduce the number of FALSE ALARM SIGNALS



98% of all automated fire alarm calls are unwanted fire alarm signal (UFAS) incidents. YOU CAN PREVENT THIS.



Toast - Is there a smoke detector nearby that could be accidentally set off?

- Don't leave cooking unattended
- Close doors in food prep areas
- Keep area well ventilated



Aerosols - Is there a detector nearby that could be accidentally set off?

- Use aerosol sparingly
- Keep area well ventilated
- Is there an aerosol substitute available?



Cleaning (Cleaning) - Is there a detector nearby that could be accidentally set off?

- Avoid steam cleaning - is there an alternative method?
- Is cleaning process likely to produce fumes to set off a detector
- Can areas of Fire Alarm system be isolated by engineer?



Equipment - Are you testing, moving items or working near fire alarm equipment?

- Ensure system is off line for testing
- Avoid accidental contact with Break glass units
- Consider local isolation for maintenance work



5 - 5 seconds, 5 minutes it doesn't matter

- Think about your actions
- Think how it will impact on the fire alarm system

For further advice, please visit www.firescotland.gov.uk



Scottish Fire and Rescue Service



@scotfirerescueservice



@fire_scot #UFAS #take5

An Alarming Trend of business interruption



SCOTTISH
FIRE AND RESCUE SERVICE
Working together for a safer Scotland

Automatic fire detection and alarm systems protect buildings and their occupants by detecting a fire at an early stage of its development. Each year across Scotland 48,000 fire alarm signals are generated, accounting for 45% of all fire and rescue activity. Less than 2% are as a result of fire, 98% require no intervention.

On average every Unwanted Fire Alarm Signal incident interrupts business for 27 minutes.

Business Continuity Management is a framework for identifying potential threats to an organisation and building organisational capability to respond to such threats. This should include assessing the potential for disruption caused by Unwanted Fire Alarm Signals (UFAS).

Business Interruption Model

MINUTES

1 ALARM RECOGNITION

1 PRE-MOVEMENT

5 EVACUATION

9 FIRE & RESCUE ARRIVAL AND INVESTIGATION

6 RE-ENTRY

5 START UP

27 MINUTES LOST

Negative Impact on your Business

Loss of production

Every UFAS cost UK business £848

Loss of reputation

Loss of customer base

Threat to stakeholders

Loss of brand and value adding activities

**Don't let your fire alarm system affect your business.
It's your system- you can control it!**

For further advice on preventing Unwanted Fire Alarms
www.firescotland.gov.uk | e.edinfse@firescotland.gov.uk

B E A W A R E

AVOIDING FALSE ALARMS

98% of all automated fire alarm calls are unwanted fire alarm signals (UFAS) incidents

YOU CAN PREVENT THIS



B BREAK GLASS POINTS

Break glass points are for use in emergencies only. Do not mistake fire alarm break glass points for **GREEN** door exit points!



E EXTERNAL SMOKING ONLY

Only designated external smoking areas should be used. Do not smoke or vape inside the building or in your room



A APPLIANCES

Take care when using toasters, kettles, dryers, straighteners. All of these can impact on the fire alarm system - always use them well away from smoke detectors



W WATER, VAPOUR, STEAM

Steam can set off alarms, so keep bathroom doors closed and extractor fans on when using baths, showers and sinks. Do not leave them unattended, as overflowing water can damage detection equipment on the floor below.



A ACTIONS IN AN EMERGENCY

Raise the alarm! Always call 999 if you discover a fire. Pass your details as well as important info such as address, location within the building, what's on fire and if anyone is trapped



R REMOVAL OF HEADS/DAMAGE

Never remove, cover up or damage smoke or heat detector heads to prevent them activating



E EXITS & ESCAPE ROUTES

Know your escape route and the location of your closest fire exit. Never wedge fire doors open and close doors behind you when evacuating

BE AWARE!

Reducing false alarms



Scottish Business Resilience Centre
Creating a secure Scotland for business to flourish in

Visit firescotland.gov.uk





RETAIL RESILIENCE AWARD

INFORMATION AND GUIDANCE



INTRODUCTION

The Retail Resilience Award is designed to deliver certificated bespoke training to retail management and employees. The Award will encompass a three-tier structure, with each successfully completed tier resulting in a Bronze, Silver and Gold certification.

Each tier will be awarded following the participation and successful completion of the training programme. The tiers will be specifically tailored to meet the needs of the individual establishments, following analysis by the Scottish Business Resilience Centre (SBRC).

The Award is designed to raise the standards of crime prevention nationally, thereby improving the retail environment within towns and cities across Scotland.

The Retail Resilience Award will be administered by members of staff from the SBRC; who are committed to reducing crime; creating a safe, secure trading environment in which businesses and communities can flourish; and increasing employment prosperity.

The Award programme will provide relevant training, supplemented by additional resource materials on completion of the programme. Each aspect of the training has been developed by experts in their respective fields, ensuring that all the information is both current, and pertinent to the individual establishment.

AIMS

- To provide participants with the knowledge to achieve higher standards of crime prevention.
- To encourage effective partnership working with the SBRC that will contribute to a safer and more secure retail environment.
- To ensure all the information held by management is up to date, reflecting the fluid dynamics of crime trends and associated preventative measures.
- To provide reassurance for customers and staff alike, whilst addressing public perception and fear of crime.

AWARD TIERS

BRONZE AWARD

The Bronze Award will cover the following aspects of Crime Prevention and Personal Security, with training provided on:

Crime Prevention

- Methods
- Trends
- Prevention techniques
- Identification of perpetrators

Personal Security

- Generic personal safety
- Personal safety in the workplace
- Anger management and de-escalation techniques
- Safe environments



SILVER AWARD

The Silver Award will build on the existing knowledge of the Bronze Award; and will focus on Fire Safety and Legislative Compliance, Human Trafficking and Child Sexual Exploitation. This will involve participating in a seminar on the following areas of concern:

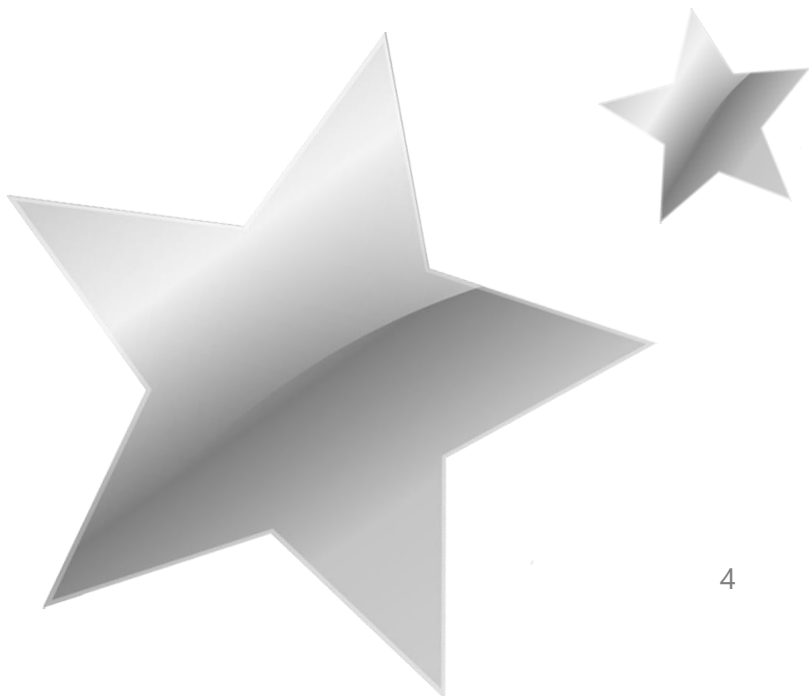
Fire Safety & Legislation Compliance

- Generic fire safety guidance
- Effective management of legislative compliance
- Best practice to reduce Unwanted Fire Alarm Signals (UFAS)

Identifying Criminality:

Human Trafficking

Child Sexual Exploitation



GOLD AWARD

The Gold Award will further enhance the existing knowledge gained on completion of the Bronze and Silver Awards; and will focus exclusively on Cyber Crime and Counter Terrorism. This will involve participation in a further seminar delivered by experts from the SBRC.

The topics covered will be specifically tailored to the needs and requirements of those involved within their unique retail environment. The topics covered will include:

Cyber Crime

Cyber Crime overview

The most common cyber threats (including Malware, Ransomware, Spyware and Social Engineering)

Phishing and Spear Phishing

Best practice to mitigate risk of cyber-attack

Counter Terrorism

Run, Hide, Tell

Action Counters Terrorism (ACT) Awareness

Cross-Sector Safety and Security Communications (CSSC) Alert System

COMPLETION

Completion of each tier of the Award will be recognised via the presentation of a certificate; and also, will be featured on SBRC's marketing channels, providing positive PR and media exposure for the establishment concerned.

In order to achieve the Gold Award, three visits will be made to the premises, once per Award tier. There is no requirement to progress through all three tiers - indeed the level of certification required will be based on the needs of each individual establishment.

SFRS Position Statement on BRE Study – Live Investigation of False Fire Alarms (2015)

The BRE Report 'Live Investigations of False Fire Alarms' published in 2015 provided 35 recommendations that could significantly reduce false alarm occurrences and contribute to the greater integrity and reliability of systems and management processes. Of the 35 recommendations it was proposed that SFRS would have the responsibility for implementing the following 10 recommendations;

Recommendation	See UFAS Action Point
Awareness of the recommendation in BS 7273-4 with regards to the use of green 'break glass' units should be increased in FRSs.	12
A review of NHS Scotland/Department of Health guidance should reconsider advice regarding the early operation of Manual Call Points (MCP) when there is a smell of smoke.	2
SFRS should put in place arrangements with ARCs with ex-directory connections, to ensure that correct addresses and postcodes are passed to the appropriate control.	4
Where practical, businesses should be encouraged by the FRS to implement the use of staff alarms/investigation periods before calling the FRS to an automatic fire alarm.	3
FRSs should request copies of the previous 12 months of log book entries, either at audits or during attendance at false alarms.	
Fire Detection and Fire Alarm System control equipment should be checked for fault or isolation disablement conditions, when premises are audited by the FRS or during any operational incident. FRSs should review current operational procedures.	
The exchange of knowledge between FRSs and fire alarm companies should be improved.	5
Scottish Government (SG) Sector Specific Guidance should be updated with relevant findings from this research work to reduce false alarms.	9
FRSs should consider the use of specialist fire alarm investigators to investigate the causes of false alarms.	7
FRSs should correctly specify the causes of false alarms as 'Unknown' rather than 'Fault' when the false alarm cannot be identified (even if a fault is suspected).	5 and 8

Of the 10 recommendations SFRS have made progress in all with varying success, 3 have been actioned and completed and 3 have either not been applied or are awaiting changes from other organisations. The remaining 4 recommendations are in progress or require ongoing monitoring/training. Further details are available in the UFAS Action Plan below.

SFRS UFAS Action Plan

The 10 recommendations that SFRS were allocated were further broken down to in the SFRS UFAS Action Plan implemented in April 2016. This action plan was designed to incorporate three reports (SFRS Internal Review, HMFSI Inspection and BRE Study) and therefore cover additional actions, some of which were not included in the BRE Study recommendations. The following actions were linked to the BRE recommendations although may overlap to the other two reports. Progress is highlighted in Red.

1. National UFAS Coordinator established to form a link to UK wide FRS & Business Engagement Forum (BEF) – CFOA False Alarm Project Lead appointed, SFRS UFAS Lead (Group Commander). In addition, there are 2 P&P Directorate officers embedded within the NFCC Unwanted Fire Signals Working UK Working Group who will continue to analyse best practice in other services for adoption within SFRS.
2. Work alongside NHS Fire Safety Advisors to review their guidance on the use of Manual break glass call points (MCP) – Regular meetings with FSAG for NHS, existing procedure remains with NHS employees trained to use break glass call points when they smell smoke. This requires a change in position from NHS Management and Fire Safety Advisors though is being pursued through their Fire Safety Advisory Group.
3. Promote the use of staff alarms across the organisation – Training events have been undertaken with UFAS Champions to explain 'staff alarms' and areas of good practice.
 - a. Provide guidance to all personnel on the term 'staff alarm', along with how it can be used to reduce the number of AFA calls
 - b. Identify areas of good practice where staff alarms have been used to reduce calls to certain property types
 - c. Establish a 'Share-Point' site where middle managers can reference areas of good practice with regards to AFA calls.
4. Work alongside Alarm Receiving Centres to ensure the correct weight and speed of response is sent to the accurate address – This issue originated from one specific ARC and was reported to the NSI. SFRS will continue to operate their PDA reduction strategy on a risk based approach ensuring that those premises deemed highest risk are awarded an appropriate response.
5. Develop an UFAS Recording System to enable the organisation to monitor problematic premises in a consistent manner – UFAS Recording System (URS) developed and launched in 2017, some requirements are outstanding including automatic notifications and recording of engagement with each Dutyholder. ICT are aware of the second phase for development though currently don't have resource to take forward this requirement.
 - a. Develop a digital version of the existing recording form to enable all information to be stored in a consistent manner. Done
 - b. Develop a system that will capture the causal factors that are unable to be recorded in the IRS. Done
 - c. Align the reporting function to the IRS to ensure all reports produced are consistent to those produced by PDS In progress
 - d. Develop a Qlikview reporting page that will enable areas to produce tasking reports on a regular basis. Prototype completed, requires further ICT development.
 - e. Develop a series of bespoke reports that will enable supervisory managers to monitor performance at a station level. As above.
 - f. Deliver training to all LSO Areas prior to the UFAS Recording System go live date. Completed

- g. Produce an Awareness Briefing Note to support the implementation of the system across the country. **Completed**
- h. Develop a series of automated notifications to support the monitoring of UFAS within each LSO Area. **Currently designed within existing UFAS Recording System**
- i. Locate the UFAS Recording System in a location that is easily accessible by staff throughout the organisation. **Completed**
6. Monitor and report on the number of vehicle accidents arising from UFAS mobilisation – **Require confirmation from H&S department if this action was completed.**
 - a. Develop a reporting template that will enable the H&S Section to regularly report on the number of AFA vehicle accidents. **Unknown at this time**
7. Promote the UFAS Champions role to all LSO Areas – **All LSO Areas have at least one UFAS Champion who attend any update meetings and training events. UFAS Champions are also part of the email distribution group that receives up to date notifications.**
8. Develop a document depository to enable all staff to monitor the level of engagement undertaken within each Duty Holder – **Currently LSOs keep their own records of engagement with duty holders, with the development of URS Phase 2 any records/correspondence will be uploaded to the system.**
9. Work alongside Scottish Government to review Sector Specific Guides for the purposes of reducing false alarms – **This action has been completed with the review and introduction of the new Sleeping/Non-sleeping sector specific guidance released by SG in 2017-18. Care Home and Health Guides have yet to be reviewed to include updates to false alarms.**
10. Provide Control Centre Staff with bespoke training on the guiding principles of the UFAS Policy and Procedure – **Control centre staff have received training.**
11. Develop a series of middle manager development sessions to raise an awareness of the SFRS' UFAS doctrine – **No specific development sessions for UFAS; however, it is a part of the 'Middle Managers' development days.**
12. Raise an awareness of the recommendation in BS 7273- with regards to the use of MCPs – **Training amended for firefighters and supervisory managers to include this BS, this BS was also included in UFAS Champion and Enforcement Officers training events.**