Business continuity

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Introduction

This guidance sets out to provide fire and rescue services with supplementary information about potential hazards. It also includes relevant control measures if fire control operations are impacted by disruptive events, such as loss of premises, loss of 999/112 service and failure of fire control systems.

The guidance is aimed at fire and rescue services and writers of fire control-related policies and procedures. It covers methods to maintain an effective operational response while continuing to deliver critical fire control activities with minimal disruption.

Effective business continuity arrangements will ensure:

- The impact of disruption is minimised, so that critical fire control activities can continue
- Resources are used effectively
- Operations can return to normal as soon as possible
- Compliance with legal duties

ISO 22301 is the international standard for business continuity management and provides a framework as part of overall risk management.

Every fire and rescue service must have a business continuity plan for their fire control function. The plan must identify critical activities and resource requirements, including recovery times of critical activities.

Fire and rescue services will consider methods for dealing with reduced availability of fire control personnel in their organisational business continuity plans.

Depending on the business continuity arrangements in place, it may be necessary to provide fire control personnel with access to organisational plans. This is especially important if they have responsibility for any associated tasks. .

Call handling agent

The call handling agent, BT Plc, receives emergency calls and connects them to the relevant emergency control rooms in the UK. The communications provider provides location information to the call handling agent, which then provides it to the emergency services.

Public Emergency Call Service Code of Practice

The Public Emergency Call Service (PECS) Code of Practice sets out the methods used to pass emergency calls between the call handling agent and the emergency authority. Fire and rescue services should consider the PECS Code of Practice when developing policies, procedures and training for fire control personnel.

Hazard – Fire control systems failure

HAZARD KNOWLEDGE

Fire control personnel use a range of electronic methods to support emergency call management, mobilise operational resources and support the safe resolution of incidents.

Mobilising and communications systems include:

- Telephony equipment
- The means to create incident logs and record all associated incident information
- The means to calculate an operational response and identify the most appropriate resources to mobilise
- Electronic communications links with fire stations and operational resources to enable mobilisation and information sharing
- Voice recording software and equipment
- Visual display equipment

When system failures such as hardware or software malfunctions occur, the impact may be significant. The level of the impact on fire control operations, operational resources and the fire and rescue service's ability to efficiently manage and respond to incidents will vary.

Contingency arrangements may challenge the capacity of fire control personnel to complete associated tasks and provide effective emergency call management and incident management activities safely.

Mobilising systems

Mobilising system failures may cause delays in operational personnel being alerted to an incident and critical information being shared about its location and nature.

Failures are likely to introduce challenges for fire control personnel to accurately record emergency call and incident information. Identifying the closest available operational resources to an incident will also be more difficult. This may cause delays in operational personnel being mobilised, resulting in a delayed attendance.

Access to information that fire control personnel use during emergency call management may be unavailable. This may include:

- Pre-populated questions and call prompts
- Gazetteer and mapping information
- Guidance and procedural information
- Site Specific Risk Information

Technology that can help fire control personnel to locate the caller and the incident includes Enhanced Information Service for Emergency Calls (EISEC) and Advanced Mobile Location (AML). When this isn't available, it is more challenging for fire control personnel to locate emergency callers and mobilise the most appropriate operational response.

Electronic methods that the fire control commander uses to visually and audio monitor calls may be lost. Fire control personnel may be unable to access emergency call and radio communications recordings.

Authorised users, such as those with incident command roles and responsibilities, are usually able to remotely access data and information relating to incidents. During system failures, they may be unable to access current information.

Telephony equipment

Failure in telephony equipment may cause delays in the connection of emergency and non-emergency calls to and from fire control.

Any delays in emergency calls being answered may result in:

- Delays to callers receiving assistance, including life-saving guidance
- Delayed attendance at incidents
- Harm to the reputation of the fire and rescue service
- Reduced levels of public confidence

Communications equipment

Effective and resilient communication links between fire control, operational personnel and other Category 1 responders and organisations are vital to build situational awareness and ensure prompt sharing of critical information.

When failures occur, the ability to share, record or receive critical information may be compromised. This could lead to a delayed or inaccurate response to incidents and may compromise the safety of the public, operational personnel and other emergency responders.

Resource management software

Fire control personnel make critical decisions involving the movements of operational personnel. Resource management software may be used to assist when managing operational crewing and availability information. Such software may be interfaced with mobilising systems, allowing the availability status of resources to be automatically updated. Any failure in such software, whether or not it is interfaced with the mobilising system, will be challenging for fire control personnel and affect their ability to establish availability of resources. This may lead to an inaccurate or delayed response to incidents.

Software may also be used to monitor the location and availability of operational resources and inform decision-making about the movement of resources, to maintain operational availability in

priority locations. If such software fails or is unavailable, this will challenge the ability of fire control personnel to view a real-time analysis of the most effective and efficient movement of operational resources.

Control measure – Resilient fire control systems

CONTROL MEASURE KNOWLEDGE

To ensure continuity of critical fire control activities, fire and rescue services should provide resilient and appropriate fire control systems. The systems should effectively support the activities required of fire control and operational personnel.

Mobilising methods

Electronic data links provide methods of communication between fire control, fire stations and operational resources. They enable resources to be alerted and incident information to be shared. The equipment provided may include the ability to activate lights, audible alert methods, printers to deliver critical information. Operational personnel not at a fire station may be alerted via mobile data terminals (MDTs). On-call operational personnel may be simultaneously alerted via integrated messaging systems.

Information can be sent to resources in several ways. For example, data may be sent to a system located in a fire station or at another resource location, even if temporarily.

Electronic data links between the mobilising system and fire station equipment may be provided in several ways. Multiple bearers are usually employed for resilience.

Mobilising systems

When used in conjunction with automatic vehicle location systems (AVLS), mobilising systems can assist fire control personnel in identifying the nearest available resources to an incident. Mobilising systems are also used by fire control personnel to assign resources to an incident. Predetermined attendances based on an address-based gazetteer can be configured alongside incident types in the mobilising system. Such systems can propose resources based on criteria, such as availability status, location and travel time. Fire control personnel may then accept or amend a response based on the information collected during emergency call management and their situational awareness of other incidents and events.

Secondary functions include displaying alarm conditions for the system, which can alert fire control personnel to faults, and generating statistical information.

Other types of information that can be linked in the mobilising system include:

- Call prompts
- Action plans
- Supplementary information, such as aides-memoire

- Information about the pre-determined attendance and specialist equipment that may be mobilised
- Site Specific Risk Information
- Historical data
- Directories of contacts

For more information refer to Emergency call management and mobilising.

Other functions that a mobilising system may provide include:

- Batching and queuing calls in spate conditions
- Operating system alarms
- Training modes
- An automated record of incident data, such as the date and time that information was generated or inputted
- User profiles and access levels

Duplications of servers in the mobilising system can provide resilience against system failures. If one server fails, the other servers can continue to provide fire control personnel with access to the mobilising system.

Where cloud-hosted or a combination of on-site and cloud-hosted mobilising systems are used, recovery plans should be put in place. These may include data encryption and continuous remote monitoring.

Data storage and transfer should have built-in resilience and disaster recovery for resilience.

Telephony equipment

Fire and rescue services are responsible for providing the means of receiving emergency calls. They also need to notify the call handling agent about the equipment and the connect-to routings in use.

Fire and rescue services should have arrangements in place to ensure they can receive emergency calls even during the most serious local or wide area network issues.

Fire and rescue services should consider contingency methods. These should allow fire control to continue to function through unplanned communication loss, such as network, power or hardware failure.

Sufficient telephone lines should be allocated to fire control to ensure all types of calls can be connected and emergency calls are prioritised effectively. Fire and rescue services should consider the priority level of calls and the types of calls they receive. Primary, secondary and alternative routes should be considered to meet the requirements set out in the Public Emergency Call Service (PECS) Code of Practice.

The call handling agent has a network with built-in resilience to connect emergency calls to emergency authority control rooms. Calls will normally be connected via the primary route. Alternative routings will automatically be used if congestion or failure is detected.

Primary

The route initially used by the call handling agent to connect the caller, reserved exclusively for receiving 999/112 calls.

Secondary

The secondary number is normally only used if there is an unusually high level of calls or a fault with the primary number. The call handling agent will use the secondary route if they receive no reply after a set length of time on the primary number.

Alternative

An alternative route should be provided for situations where the primary and secondary routes are unavailable. If the call handling agent receives no reply after a set length of time on the secondary number, they will attempt to connect the caller using the alternative number. For resilience, this number must be served by a different network route from that providing the primary and secondary routes.

Communications equipment

The mobilising systems adopted may integrate telephony and radio communication channels into a common platform known as Integrated Communications Control System (ICCS). Its functions may include:

- Audio and visual distinction between emergency and non-emergency calls and radio communication channels
- Queuing of emergency and non-emergency calls
- Presenting priority calls at the top of the queue
- Indicating how long calls have been queuing
- Methods to manage radio transmissions
- Automatic call distribution (ACD)
- Methods to audio monitor calls and radio transmissions
- Recording and an instant playback function for calls and radio transmissions
- Methods to manage radio assets assigned to operational resources
- Methods to manage talkgroups

The ICCS should include a network with built-in resilience to support the system. The methods

used may vary depending on the network supplier. Consideration should be given to the methods of support available, and fire control personnel should be provided with access to an appropriate support and maintenance service.

Radio network

Fire and rescue services have access to a radio network, on which they can communicate with emergency responders. Resilience to the network is provided in several ways, including:

- Encryption
- Backup power sources
- Disaster recovery plans

Fire and rescue services should consider the loss of the radio network in its business continuity arrangements. Alternative communication methods may include mobile and satellite telephones.

Power supplies

An uninterruptible power supply (UPS) provides power if the main power source into fire control fails. This should switch over automatically and should not cause any interruptions to the systems fire control personnel use.

Backup power sources, such as batteries or generators, will ensure that critical systems continue to operate during a power outage. The supply provided by a UPS is usually for a defined period. Further methods to provide power may need to be considered if an outage is expected to last for an extended length of time.

Electronic methods of sharing information

Electronic methods allow fire control personnel to share incident information securely, which supports interoperability and intraoperability. Such systems allow fire control personnel to share and receive incident information electronically in a standard format, without the need for telephone calls or emails.

This may be useful in situations like multiple call and multiple incident scenarios. These systems assist fire control personnel in recording and sharing incident information promptly with the affected emergency control room.

In situations where electronic methods are unavailable, fire control personnel should use telephone or radio hailing talkgroups to share incident information with other emergency control rooms.

STRATEGIC ACTIONS

Fire and rescue services should:

- Provide resilient and appropriate systems that support fire control functions and activities

- Provide resilience by ensuring they have alternative communication routes for the connection of emergency calls
- Ensure there are reliable communications lines between the call handling agent and fire control
- Ensure there are reliable communications lines between fire control and relevant personnel
- Consider the use of electronic methods of sharing information as part of their resilient fire control arrangements
- Provide and maintain power supplies, in case the main power source supplying fire control fails
- Establish a communication strategy with other emergency responders in their area

TACTICAL ACTIONS

Fire control personnel should:

- Use equipment and systems provided to receive emergency calls
- Use alternative methods provided to receive emergency calls when required
- Identify when alternative power supplies are being used and what their potential limitations are
- Use appropriate methods to share incident information with other emergency control rooms when electronic methods are unavailable

Control measure – Provide support for fire control systems

CONTROL MEASURE KNOWLEDGE

The electronic systems, software and communication networks used to provide fire control functions can be complex. Technical support is essential, to ensure disruption is minimised and service can continue without interruption. When faults occur and cause full or partial failure, specialist advice and knowledge will be required to diagnose and resolve them. A range of support should be provided to fire control personnel, including methods to obtain technical advice and support when required.

Most mobilising and communication systems provide the ability to automatically record and display system and software faults, failures and network outages. Systems can be configured to provide audible or visual alerts to fire control personnel, so that the information is shared with the relevant technical support team.

The hardware and software used to provide fire control systems should be routinely maintained and updated to support continued service.

Regular maintenance will help to identify any system faults and issues and may prevent them from escalating. This will contribute to the efficient functioning of systems. Maintaining the efficiency of systems should be an ongoing process, to ensure they are performing to the highest standard and that all data displayed is current.

Security measures ensure that sensitive and personal information is shielded from unauthorised access, and that system integrity is maintained. Secure methods to gain access to systems should be considered to prevent unauthorised users from gaining access.

Training on the use of fire control systems may be provided by system suppliers. This may include customised courses for essential users, and first line maintenance courses for fire control personnel. Training enables fire control personnel to work alongside system engineers if a problem occurs.

As part of any contractual agreement with suppliers, fire and rescue services should consider maintenance agreements suited to their own organisational requirements.

Fire control personnel should record system faults and errors on a fault log, along with any updates provided. This supports audit purposes and helps detect any reoccurring faults and issues.

All decisions and actions relating to faults and failure of fire control systems should be recorded. This includes who made each decision and the decision-making rationale. Methods of escalating faults and prioritising them at the appropriate level should be considered.

STRATEGIC ACTIONS

Fire and rescue services should:

- Provide methods for the delivery of maintenance and upgrades for fire control software and hardware
- Consider secure methods for user access to systems, and appropriate management controls
- Maintain and keep fire control equipment up to date
- Have arrangements in place for the rapid resolution of fire control room system failures

TACTICAL ACTIONS

Fire control personnel should:

- Use methods provided to identify signs and symptoms of software or hardware failure, and inform the relevant support team
- Record system faults and errors in a fault log
- Record decisions and actions about faults and failures of fire control systems
- Escalate and prioritise faults to the appropriate level

Control measure – Multiple communication bearers

CONTROL MEASURE KNOWLEDGE

Communication bearers transmit data and information between devices, systems and sites, for example between fire control and fire station equipment.

Multiple communication bearers can be used to connect, such as:

- Mobilising equipment
- Mobile data terminals (MDTs)
- Integrated Communications Control System (ICCS)
- Alerts to on-call personnel

Once connected, the devices, systems and sites can exchange data and information, enabling an efficient response.

To ensure resilience, it is good practice to provide more than one type of bearer. This means that in the event one of the bearers fails, the system will automatically select an alternative bearer to carry the signal and data.

Communications with resources which are not at a fire station may be relayed using mobile or satellite networks. This provides greater resilience by spreading the risk of failure and ensuring fire and rescue services can fulfil their duties.

Systems should be configured to provide a log of data transmissions. A log can make fire control personnel aware of bearer failures and help them identify the need for alternative methods of communication.

STRATEGIC ACTIONS

Fire and rescue services should:

- Provide multiple bearers for mobilising systems and communications
- Configure systems to alert fire control personnel of bearer failures
- Ensure operational preparedness by testing alternative communication methods and training fire control and operational personnel in their use

TACTICAL ACTIONS

Fire control personnel should:

- Use the systems provided to identify communication bearer failures

- Select appropriate alternative methods to communicate following a bearer failure

Control measure – Critical contact number

CONTROL MEASURE KNOWLEDGE

The Public Emergency Call Service (PECS) Code of Practice requires the provision of a critical contact number in addition to the primary, secondary and alternative routings used to connect emergency callers. The critical contact number will only be used by call handling agent operator centre managers to contact fire control in the event of spate conditions, equipment failure or other problem, so that corrective action can be agreed.

It is important that fire control personnel are aware of the arrangement in place and how it may be used by the call handling agent.

Methods of receiving calls on the critical contact number in the event of a system failure, or when operating in contingency conditions, should be considered. It may be appropriate for a mobile phone to be provided solely for use as the critical contact method between the call handling agent and fire control.

When using a mobile phone as the method for critical contact, consideration should be given to the methods of recording information shared and any decisions and actions agreed. These conversations with the call handling agent will not be recorded.

STRATEGIC ACTIONS

Fire and rescue services should:

- Provide a dedicated critical contact number to the call handling agent
- Consider alternative contingency methods of receiving calls on the critical contact number

TACTICAL ACTIONS

Fire control personnel should:

- Use the critical contact arrangements provided to receive information from the call handling agent
- Use methods provided to record information received from the call handling agent using critical contact arrangements, and the decisions and actions taken

Control measure – Contingency arrangements

CONTROL MEASURE KNOWLEDGE

Effective contingency arrangements provide additional resilience. They help to ensure fire control personnel can continue with emergency call management and mobilising, and incident management activities, during even the most catastrophic system and utilities failures.

Fire and rescue services should ensure they have appropriate contingency arrangements in place, and effective means for fire control personnel to implement them when necessary. The methods used will vary and are dependent on local agreements and plans.

The contingency arrangements provided should enable fire control personnel to continue to:

- Receive emergency calls from the call handling agent
- Receive information from other emergency controls
- Receive, record and share incident data and information, including any known Site Specific Risk Information about people or premises
- Monitor operational resources and mobilise an appropriate response

Fire and rescue services should consider the number of fire control personnel required when contingency arrangements are in use. Methods available to increase capacity and the welfare needs of personnel should be considered, to ensure the safe and effective delivery of the fire control function.

Prioritisation

The impact that contingency arrangements have on the completion of tasks may be mitigated by pre-planning and organisational business continuity arrangements. These should consider the full range of fire control activities. Plans that identify critical and lower priority activities will help fire control commanders and their teams to prioritise and assign tasks effectively.

Mobilising methods

In the event of failure of the normal methods used to alert and share incident information with operational personnel, alternative methods should be available. Such methods should consider how fire control personnel will alert operational personnel to incidents in a range of settings, including:

- Operational personnel located at a fire station
- Operational personnel not at a fire station
- On-call operational personnel
- Duty officers and other subject matter advisers

Alternative methods may include:

- Radio
- Mobile telephone
- Satellite telephone

Methods of sharing information in the event of a loss of communication with mobile data terminals should also be considered.

Mobilising systems

Alternative methods for communication and recording information should be considered in the event of a full or partial loss of mobilising system functionality. Such methods may include:

- Communication provisions, including:
    - Telephone equipment separate from the ICCS
    - Radio equipment, such as desktop or handheld devices
- Using training systems
- Paper incident recording forms
- Laptops or tablets
- Access to maps and other information:
    - Towns, villages, areas or districts with nearest resource locations
    - Pre-determined attendances
    - Guidance documents
    - Action plans
    - Directories of contacts
- Methods to assist planning and recording information, such as:
    - Whiteboards to assist with mobilising and managing resources
    - Paper handover forms

When paper incident records are used, fire and rescue services should ensure they are stored in accordance with current legislation. The information should be transferred to electronic format when available.

More information can be found in Corporate guidance for operational activity – Data and information management.

When fire control personnel use contingency arrangements, fire and rescue services should consider methods of recording emergency calls and radio communications, as these calls and

transmissions may not be audio recorded. Periods of any non-recorded transactions should be noted, to support audit purposes.

To provide appropriate support to fire control personnel, alternative methods for emergency call supervision should also be considered. These may include using desktop phone functionality to audio monitor calls.

Authorised users who are usually able to access data and information relating to incidents, such as those with incident command roles and responsibilities, may need to use other methods to access information. These may include verbal updates from fire control personnel or monitoring of radio communication channels.

Automatic vehicle location system

An automatic vehicle location system (AVLS) can be used in conjunction with a mobilising system. It provides fire control personnel with information to determine the location of the most appropriate resources, based on type, location, access and road speed.

If AVLS is not available, fire control personnel should monitor and review resource locations, movements and availabilities, so that they can mobilise the most appropriate resources.

Telephony equipment

Call diversion allows the automatic routing of emergency and non-emergency calls from one number to another. This may be necessary during a system failure or scheduled routine maintenance. Calls can be routed to predefined locations and lines as agreed in business continuity plans.

Plans may also include connecting calls to a nominated buddy control automatically if unanswered by the affected fire control, for a locally defined period. The affected fire control may also request that the call handling agent connect calls to their buddy on their behalf.

Fire and rescue services may have collaboration arrangements with other fire and rescue services and other agency emergency control rooms for the handling of emergency calls during unplanned events.

The call handling agent may also connect emergency calls to other agency emergency control rooms as outlined in the Public Emergency Call Service (PECS) Code of Practice. This may happen if they are unable to connect an emergency call to the affected fire control, nominated buddy control room or neighbouring fire and rescue service.

Incident and call information can then be passed back to the appropriate fire control for mobilisation. Or, if arrangements allow mobilisation on can be initiated on behalf of the affected fire control.

Communications equipment

Fire and rescue services should preconfigure radio handsets and devices that are separate to Integrated Communications Control System (ICCS) and mobilising systems. They should be easily accessible and ready for fire control personnel to use in the event of system failures.

To ensure equipment is ready for use, fire control personnel should regularly test functionality and ensure devices are fully charged.

Radio network

A partial or complete loss of access to the radio network is foreseeable. This may be due to several reasons such as congestion or damaged or unavailable masts. Alternative methods of communication include:

- Mobile telephones
- Satellite telephones
- Telephone communications
- Mobile data terminals (MDTs)

Refer to Effective communication systems between agencies for multi-agency guidance and Multiple calls and multiple incidents, congestion of critical voice communications.

A communications tactical adviser should be available to help manage such situations.

The network monitoring centre (NMC) Airwave can assist in providing appropriate advice and guidance. It should be contacted in the event of a suspected failure or loss of access to the network.

Locating tools

When the technology used by fire control personnel that assists with locating a caller and incident location is not available, such as Enhanced Information Service for Emergency Calls (EISEC) and Advanced Mobile Location (AML), fire control personnel may need to consider the contingency methods available to them. This will include detailed questioning of callers about their location and the location of the incident.

Resource management software

Where resource management software fails or is unavailable, fire and rescue services will need to consider the methods available to fire control personnel to:

- Assist with locating and monitoring the availability of resources
- Assign the most appropriate resources to incidents
- Make decisions about the movement of resources based on prioritised risk levels and pre-planning

These methods may include:

- Restricting the routine, non-emergency movement of resources
- Providing alternative methods for operational personnel to update their availability

- Providing access to information in non-electronic format, such as the prioritised locations of operational resources

Where such measures are used, consideration should also be given to how they are communicated to operational personnel, so that personnel understand what they are required to do.

STRATEGIC ACTIONS

Fire and rescue services should:

- Establish appropriate contingency arrangements for the failure of fire control systems
- Establish a plan or procedure for the management and connection of emergency calls
- Consider arrangements to increase fire control capacity when contingency arrangements are in use
- Ensure that data captured using contingency arrangements is stored in accordance with current legislation, and is transferred to an electronic format when available

TACTICAL ACTIONS

Fire control commanders should:

- Use the contingency methods available to provide emergency call supervision

Fire control personnel should:

- Use the contingency arrangements provided to receive, record and share incident data and information
- Use the contingency arrangements provided to locate, monitor and mobilise operational resources
- Follow agreed plans for the management and connection of emergency calls
- Regularly check functionality of contingency equipment provided
- Consider informing the network monitoring centre of any suspected failure or loss of access to the Airwave network
- Consider requesting support from a communications tactical adviser in the event of a suspected failure or loss of access to the radio network

Hazard – Loss of primary fire control

HAZARD KNOWLEDGE

Primary fire control is the usual workplace for fire control personnel. Evacuation may be necessary due to:

- System or equipment failure
- Security threats affecting the building
- Loss of utilities
- Fire
- Environmental issues, such as severe weather restricting access routes
- Damage to the building, resulting in an unsafe structure

Evacuation or loss of primary fire control premises will cause disruption to the critical activities carried out by fire control personnel, including:

- Emergency call management
- Mobilisation of operational personnel
- Incident management activities
- Monitoring availability of operational resources
- Maintaining critical communications

The urgency of a fire control evacuation may be immediate, or it may be carried out in a staged process. Failure to manage this effectively may lead to delayed or inaccurate responses to incidents, which may compromise the safety of operational personnel. It is likely to be challenging for fire control personnel, resulting in increased stress and anxiety.

Control measure – Establish alternative fire control arrangements

CONTROL MEASURE KNOWLEDGE

Evacuation of the primary fire control should be considered a last resort. All other contingency arrangements should be explored prior to evacuation.

Fire and rescue services should have arrangements in place to continue receiving emergency calls and mobilising resources in the event of full or partial loss of the primary facility. Arrangements may include:

- Having secondary fire control facilities where the fire control function can be re-established
- Entering into a contractual agreement with another organisation to temporarily carry out emergency call management activities; where this option is selected, consideration

should be given to the methods used to mobilise resources and share incident information

Fire and rescue services should consider the provision of an evacuation pack. This should contain specific items that fire control personnel need when evacuating primary fire control and working from an alternative location. Items may include:

- Business continuity plans
- Equipment such as:
    - Mobile telephones
    - Handheld radios
- Methods to gain entry into the secondary facility
- Stationery items

Fire and rescue services should consider any constraints to normal operational service delivery caused by working from a secondary control facility. Constraints may include room size and number of available workstations.

Secondary control facilities

Mobilising systems may offer different alternative functionality, ranging from portable laptop computers to full mobilising systems and communications interfaces that mirror the primary facility.

Secondary fire control facilities should match those provided at the primary fire control as far as is practicable. As a minimum, they should be capable of:

- Receiving emergency and non-emergency calls
- Logging incident information
- Mobilising operational resources
- Radio communications

Any equipment and information used at secondary control facilities should be maintained and tested regularly. This will assist with its functionality and efficiency.

The secondary control facilities should be at a location that would not be affected by any disruption to the services provided at primary fire control. This may require establishing secondary facilities served by a different communications network and servers to those of primary fire control.

Welfare arrangements

When using secondary control facilities, the adoption of appropriate welfare arrangements will assist with the safe and effective delivery of the fire control function.

Consideration should be given to the number of fire control personnel on duty and the number of personnel that may be required. Adequate arrangements should be made, including sanitary and hygiene facilities, access to drinking water, and hot and cold refreshments. Fire and rescue services should consider the length of the redeployment and ensure appropriate welfare facilities are provided for the duration of the event.

STRATEGIC ACTIONS

Fire and rescue services should:

- Establish appropriate arrangements for the management of emergency and non-emergency calls, mobilising and communications in the event of a full or partial loss of primary fire control
- Ensure the equipment and information provided in alternative facilities is maintained and updated regularly
- Consider the provision of an evacuation pack
- Provide suitable welfare arrangements for all periods of redeployment

TACTICAL ACTIONS

Fire control personnel should:

- Use alternative fire control arrangements provided
- Use information and equipment provided, such as an evacuation pack, during the evacuation of fire control

Hazard – Loss of 999/112 emergency call service

HAZARD KNOWLEDGE

Disruption or loss of the 999/112 emergency call service may mean emergency calls from members of the public are not connected to the emergency services.

Such disruption or loss may affect calls made using landlines and mobile devices. Any call that would normally be routed via the 999/112 system could be affected. This could include calls from:

- Members of the public
- Alarm monitoring organisations

- In-vehicle systems
- People using Relay UK
- People using the British Sign Language (BSL) emergency video relay service

In such situations, fire control personnel may be unable to receive emergency calls, mobilise operational resources or provide safety and survival guidance to those in need.

Disruption may happen when a technical problem prevents the ability to make calls from fixed landlines, including calls to 999/112 emergency services. This may be due to:

- Severe weather
- Power outages
- Cable damage

Disruption may involve a full or partial loss of public access to the 999/112 emergency call service. This may occur during a technical fault affecting systems that are used by the call handling agent to receive, distribute and connect emergency calls to emergency authorities.

Control measure – Gather, record and share situational awareness about loss of public access to the 999/112 emergency call service

CONTROL MEASURE KNOWLEDGE

Loss of access to fixed landline 999/112 service

In the event of loss of service to fixed landlines, the call handling agent will notify fire control, usually via SMS or SMS to voice and email. The information provided may include:

- The duration of the outage
- The number of lines affected
- Telephone exchange capacity affected

On receipt of such a notification, fire control personnel should send an acknowledgement to the call handling agent. They should then gather and record all information provided by the call handling agent and monitor the situation for further updates and changes. Fire and rescue services will use the information gathered to decide the most appropriate level and type of response, and the actions fire control personnel should take.

Should the initial notification fail, the call handling agent and the police have agreed procedures. These measures include sharing information with other emergency authority control rooms.

During a loss of access affecting fixed landlines, the public may still be able to make calls. These may include calls to the emergency services using mobile networks, mobile devices

connected using Wi-Fi calling or Voice over Internet Protocol (VoIP) services using broadband access.

Full loss of public access to 999/112

In the event of a full loss of the 999/112 emergency call service that affects all methods of access, the call handling agent will notify fire control as soon as possible via email. National Resilience Fire Control (NRFC) will also receive a notification and will share situational awareness with other fire and rescue services via a broadcast message on the fire and rescue service national announcement talkgroup (NTG 20). Fire control personnel should gather and record all available information and refer to their local plans to determine the actions to take. To ensure situational awareness, they should continuously monitor email notifications and national announcement talkgroup (NTG20) for updates.

STRATEGIC ACTIONS

Fire and rescue services should:

- Consider the use of aides-memoire to assist fire control personnel in gathering and sharing situational awareness about loss of the 999/112 emergency call service

TACTICAL ACTIONS

Fire control personnel should:

- Use the systems provided to gather and record information about the loss of the 999/112 emergency call service
- Use the systems provided to monitor information and updates about the loss of the 999/112 service emergency call service
- Share situational awareness with relevant fire and rescue service personnel
- Exchange relevant information about the situation and actions being taken with other agencies

Control measure – Contingency arrangements for loss of access to the 999/112 emergency call service

CONTROL MEASURE KNOWLEDGE

Fire and rescue services should adopt local contingency arrangements for full loss of public access to 999/112, taking into consideration local resilience forum arrangements. Such contingency plans may include:

- The emergency alert system
- Advice to the public, including alternative contact methods
- Increased presence in the community
- Sharing information on public platforms, such as:
    - Social media
    - Local radio
    - News websites
- Establishing a Strategic Coordinating Group (SCG)
- Establishing a Tactical Coordinating Group (TCG)

Contingency arrangements should consider the capacity of fire control personnel to carry out the range of tasks required. Methods of support may include the availability of fire and rescue service communications and media teams to assist with public information messages and sharing appropriate information.

STRATEGIC ACTIONS

Fire and rescue services should:

- Assess risk and consider local contingencies in the event of loss of access to 999/112 emergency call service
- Have contingency arrangements for loss of access to fixed landline 999/112 service
- Consider the use of aides-memoire to assist fire control personnel in completing tasks and actions during a loss of the 999/112 emergency call service

TACTICAL ACTIONS

Fire control personnel should:

- Follow the local contingency arrangements provided for the loss of the 999/112 emergency call service

Hazard – Ineffective communication: Business continuity event

HAZARD KNOWLEDGE

A full or partial loss of mobilising and communications systems will be challenging for fire control personnel and may impact their ability to gather and share situational awareness.

Uncertainty or lack of awareness of operational personnel of the situation may result in fire control receiving increased calls. This could affect their capacity to deal with the situation and continue with emergency call management and incident management activities.

Ineffective communication during a business continuity event may contribute to:

- Inaccurate situational awareness
- Inaccurate mobilisation of resources
- Delayed or inappropriate responses to incidents
- Delayed sharing of critical information
- Delayed resolution of the event

Several factors may compromise communication between fire control personnel, such as:

- A lack of understanding of the methods of communication available
- Loss or reduced access to methods of communication and other technology
- Limited fire control resources
- Ineffective policies and procedures supporting business continuity
- Stress and anxiety about the situation

If fire control personnel do not effectively build, communicate and share situational awareness, it is likely to lead to an incomplete understanding of the situation and the challenges fire control personnel are managing.

Control measure – Effective communication: Business continuity event

CONTROL MEASURE KNOWLEDGE

Effective communication during a business continuity event will support the safe resolution of events.

Fire and rescue services will need to consider when and how to communicate information about the event with a range of stakeholders, including:

- Operational personnel

- Members of the public
- Other fire controls
- Internal departments
- Other agencies
- Fire control personnel not on duty
- External suppliers

The methods used will depend on:

- The nature of the event
- The urgency of information
- The local arrangements in place
- The intended recipients
- The capacity of fire control personnel

Effective business continuity plans that fire control personnel can access during an event will help them to prioritise tasks and contact the most appropriate technical and managerial support.

Situational awareness

Sharing relevant information about business continuity events with operational personnel, other fire controls and other agencies at the earliest opportunity is essential. It will help to prevent delays in the sharing and receiving of critical information about incidents. Sharing situational awareness will assist in their understanding of the situation and what actions they may need to take to communicate with fire control.

Consideration should be given to restricting non-essential calls to fire control during business continuity events. This will help fire control personnel to prioritise essential tasks effectively and continue emergency call management and incident management activities. Restriction may be achieved by sharing information via email, radio broadcast message or other electronic messaging systems if available.

STRATEGIC ACTIONS

Fire and rescue services should:

- Provide technical and managerial support to fire control personnel during business continuity events
- Consider a communication strategy for fire control as part of business continuity planning

- Have procedures and systems in place so that fire control personnel can share information about business continuity events

TACTICAL ACTIONS

Fire control personnel should:

- Use the systems provided to share information about business continuity events
- Share information about business continuity events promptly with operational personnel
- Share information about business continuity events with other relevant fire controls and other agencies
- Share situational awareness about business continuity events with other relevant personnel

Business continuity training specification

National Occupational Standards

The following National Occupational Standards apply to the training specification for business continuity.

Unit CO1 Elements	Maintain information on EFS operational resources CO1.1 Monitor the availability of operational resources CO1.2 Manage information to support decisions on operational cover
Unit CO2 Elements	Take responsibility for effective performance CO2.1 Take responsibility for personal performance
Unit CO3 Elements	Co-ordinate response to assist with resolution of event CO3.1 Gather information to aid effective response CO3.2 Mobilise resources in response to the needs of an event CO3.3 Support emergency callers CO3.4 Support ongoing needs of an event
Unit CO4 Elements	Maintain reliability and readiness of control operations equipment CO4.1 Test communication and mobilising equipment CO4.2 Maintain communication and mobilising equipment
Unit CO5 Elements	Manage information to support the needs of your community CO5.1 Gather required information CO5.2 Inform and advise others

Hazard – Fire control systems failure

821 *KNOWLEDGE AND UNDERSTANDING*

Hazard	Learning outcome
Fire control systems failure	Understand: • Understand all associated hazard knowledge

822

823 Control measure – Resilient fire control systems

824 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	Learning outcome
Mobilising methods	Understand: • Different methods of communication between fire control, fire stations and operational resources • How communication methods alert and share incident information with operational personnel
Mobilising systems	Understand: • Different methods that provide a resilient mobilising system, including: o Multiple servers o Data encryption
Telephony equipment	Understand: • Routings that connect emergency calls from the call handling agent to fire control
Communications equipment	Understand: • How to request support when systems unavailable
Radio network	Understand: • Alternative communication methods
Power supplies	Understand: • Sources of alternative power supplies • Limitations of alternative power supplies
Electronic methods of sharing information	Understand: • Alternative methods to share information when electronic methods unavailable

825 *PRACTICAL APPLICATION*

Control measure element	Learning outcome

Use equipment and systems provided to receive emergency calls	Demonstrate the ability to: • Receive emergency calls using equipment provided
Use alternative methods provided to receive emergency calls when required	Demonstrate the ability to: • Receive emergency calls using alternative methods
Identify when alternative power supplies are being used and what their potential limitations are	Demonstrate the ability to: • Identify when alternative power supplies are being used
Use appropriate methods to share incident information with other emergency control rooms when electronic methods are unavailable	Demonstrate the ability to: • Share incident information with other emergency control rooms when electronic methods unavailable

826

827 ## Control measure – Provide support for fire control systems

828 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	**Learning outcome**
Technical support	Understand: • Methods available to obtain technical advice and support
Record and display system and software faults, failures and network outages	Understand: • Methods used to record, display and alert to system faults, failures and network outages
Recording of system faults and errors	Understand: • The benefits of recording system faults and errors • How and when faults should be prioritised and escalated to the appropriate level

829

830 *PRACTICAL APPLICATION*

Control measure element	**Learning outcome**
Use methods provided to identify signs and symptoms of software or hardware failure, and inform the relevant support team	Demonstrate the ability to: • Identify signs and symptoms of software or hardware failure and how to contact relevant support team
Record system faults and errors in a fault log	Demonstrate the ability to: • Record system faults and errors

Record decisions and actions about faults and failures of fire control systems	Demonstrate the ability to: • Record decisions and actions relating to fire control system failures
Escalate and prioritise faults to the appropriate level	Demonstrate the ability to: • Prioritise faults effectively • Escalate faults to the appropriate level

831

832 Control measure – Multiple communication bearers

833 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	Learning outcome
Communication bearers	Understand: • The types of communication bearers that are provided
Bearer failures	Understand: • The benefits of having more than one communication bearer

834

835 *PRACTICAL APPLICATION*

Control measure element	Learning outcome
Use the systems provided to identify communication bearer failures	Demonstrate the ability to: • Identify communication bearer failures
Select appropriate alternative methods to communicate following a bearer failure	Demonstrate the ability to: • Select alternative methods of communication

836

837 Control measure – Critical contact number

838 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	Learning outcome
Critical contact number	Understand: • The arrangements that are in place for the provision of a critical contact number • How the critical contact number is used by the call handling agent • Why the critical contact number is used by the call handling agent

Contingency arrangements	Understand: • Methods available to receive calls on the critical contact number in the event of a system failure

839

840 *PRACTICAL APPLICATION*

Control measure element	**Learning outcome**
Use the critical contact arrangements provided to receive information from the call handling agent	Demonstrate the ability to: • Receive information from the call handling agent on the critical contact number
Use methods provided to record information received from the call handling agent using critical contact arrangements, and the decisions and actions taken	Demonstrate the ability to: • Record information received from the call handling agent on the critical contact number • Record decisions and actions taken

841

842 Control measure – Contingency arrangements

843 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	**Learning outcome**
Contingency arrangements for mobilising methods	Understand: • Alternative methods available to alert and share incident information with operational personnel
Contingency arrangements for mobilising systems	Understand: • Alternative methods of communicating and recording information • Mobilising functions that maybe unavailable when using contingency arrangements • Contingency methods used to provide emergency call supervision
Automatic vehicle location system	Understand: • Methods used when AVLS be unavailable
Contingency arrangements for telephony equipment	Understand: • Contingency arrangements for the routing and connection of emergency calls during system failures and routine maintenance

Contingency arrangements for communications equipment	Understand: • Contingency methods provided for communications equipment failure
Contingency arrangements for radio network	Understand: • Contingency methods provided for the loss of radio network
Contingency arrangements for locating tools	Understand • Methods to use during emergency call management when locating tools are unavailable
Resource management software	Understand: • Methods to use when resource management software fails or is unavailable • Importance of communicating contingency methods with operational personnel

844

845 *PRACTICAL APPLICATION*

846 Fire control commanders:

Control measure element	**Learning outcome**
Use the contingency methods available to provide emergency call supervision	Demonstrate the ability to: • Provide emergency call supervision when contingency methods are in use

847

848 Fire control personnel:

Control measure element	**Learning outcome**
Use the contingency arrangements provided to receive, record and share incident data and information	Demonstrate the ability to: • Use contingency methods to receive, record and share incident data and information
Use the contingency arrangements provided to locate, monitor and mobilise operational resources	Demonstrate the ability to: • Use contingency methods to locate, monitor and mobilise operational resources
Follow agreed plans for the management and connection of emergency calls	Demonstrate the ability to: • Use agreed plans to manage emergency calls when contingency arrangements in use
Regularly check functionality of contingency equipment provided	Demonstrate the ability to: • Use methods provided to check the functionality of contingency equipment

Consider informing the network monitoring centre of any suspected failure or loss of access to the Airwave network	Demonstrate the ability to: • Contact the Airwave network monitoring centre following any suspected failure or loss of access
Consider requesting support from a communications tactical adviser in the event of a suspected failure or loss of access to the radio network	Demonstrate the ability to: • Request a communications tactical adviser when appropriate

849

850 ## Hazard – Loss of primary fire control

851 *KNOWLEDGE AND UNDERSTANDING*

Hazard	Learning outcome
Fire control systems failure	Understand: • Understand all associated hazard knowledge

852

853 ## Control measure – Establish alternative fire control arrangements

854 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	Learning outcome
Evacuation of primary fire control	Understand: • The circumstances in which evacuation of primary fire control is necessary
Evacuation pack	Understand: • The contents and use of an evacuation pack
Secondary control facilities	Understand: • Equipment and facilities that are provided at secondary control
Welfare arrangements	Understand: • Welfare and facility requirements of personnel for the duration of an event

855

856 *PRACTICAL APPLICATION*

Control measure element	Learning outcome
Use alternative fire control arrangements provided	Demonstrate the ability to: • Use the alternative arrangements provided

Use information and equipment provided, such as an evacuation pack, during the evacuation of fire control	Demonstrate the ability to: • Use information and equipment provided, including: ○ Evacuation pack

857

858 ## Hazard – Loss of 999/112 emergency call service

859 *KNOWLEDGE AND UNDERSTANDING*

Hazard	Learning outcome
Fire control systems failure	Understand: • Understand all associated hazard knowledge

860

861 ## Control measure – Gather, record and share situational awareness about
862 ## loss of public access to the 999/112 emergency call service

863 *KNOWLEDGE AND UNDERSTANDING*

Control measure element	Learning outcome
Loss of access to fixed landline 999/112 service	Understand: • Process to follow in the event of fixed landline loss of 999/112 service • Alternative methods available during fixed landline loss of 999/112 service
Full loss of public access to 999/112	Understand: • Methods of notification of full loss of 999/112 service • Actions to take when notification is received

864

865 *PRACTICAL APPLICATION*

Control measure element	Learning outcome
Use the systems provided to gather and record information about the loss of the 999/112 emergency call service	Demonstrate the ability to: • Record information about the loss of 999/112 emergency call service
Use the systems provided to monitor information and updates about the loss of the 999/112 service emergency call service	Demonstrate the ability to: • Monitor relevant systems for information and updates

Share situational awareness with relevant fire and rescue service personnel	Demonstrate the ability to: • Share situational awareness with relevant fire and rescue service personnel
Exchange relevant information about the situation and actions being taken with other agencies	Demonstrate the ability to: • Exchange information with other agencies about the situation and actions taken

Control measure – Contingency arrangements for loss of access to the 999/112 emergency call service

KNOWLEDGE AND UNDERSTANDING

Control measure element	Learning outcome
Contingency arrangements	Understand: • Local contingency arrangements for the full loss of public access to 999/112 • Methods of support available to assist with the sharing of information

PRACTICAL APPLICATION

Control measure element	Learning outcome
Follow the local contingency arrangements provided for the loss of the 999/112 emergency call service	Demonstrate the ability to: • Follow contingency arrangements for the loss of 999/112

Hazard – Ineffective communication: Business continuity event

KNOWLEDGE AND UNDERSTANDING

Hazard	Learning outcome
Fire control systems failure	Understand: • Understand all associated hazard knowledge

Control measure – Effective communication: Business continuity event

KNOWLEDGE AND UNDERSTANDING

Control measure element	Learning outcome
Effective communication	Understand: • When to communicate information • How to communicate information • Appropriate method to use to communicate information
Situational awareness	Understand: • The importance of sharing situational awareness • When it is necessary to restrict non-essential calls to assist in prioritising tasks

PRACTICAL APPLICATION

Control measure element	Learning outcome
Use the systems provided to share information about business continuity events	Demonstrate the ability to: • Use systems to share information about business continuity events
Share information about business continuity events promptly with operational personnel	Demonstrate the ability to: • Share information with operational personnel
Share information about business continuity events with other relevant fire controls and other agencies	Demonstrate the ability to: • Share information with other fire controls and other agencies
Share situational awareness about business continuity events with other relevant personnel	Demonstrate the ability to: • Share situational awareness with relevant personnel