



National  
Operational  
Guidance

## Section

**Risk information gathering**



**NFCC**  
National Fire  
Chiefs Council

Developed and maintained by the NFCC

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## Risk information gathering

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Hazards and control measures associated with the collection, storage and accessing of operational risk information.



### Hazard - Failure to identify foreseeable risk

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#### **Hazard Knowledge**

Fire and rescue authorities have a responsibility for the health, safety and welfare of their employees. This runs parallel to their responsibility to reduce the risk from fire (and other emergencies) to the community they serve, and the environment in which they operate.

As part of these responsibilities, the fire and rescue authority must have appropriate policies and procedures in place to address any issues in achieving these objectives and provide the appropriate knowledge, skills and understanding through training and development, to enable its employees to operate safely.

Current UK legislation states that a fire and rescue authority must make provisions for:

- Extinguishing fires in its area
- Protecting life and property at fires in its area
- Rescuing and protecting people at a road traffic collision
- Rescuing and protecting people in emergencies

This legislation places a responsibility on the fire and rescue authority to make arrangements for obtaining the information needed for that purpose.

In support of these legislative responsibilities, the various fire and rescue national frameworks require fire and rescue authorities to have effective arrangements for gathering risk information and making it readily available to operational crews. These arrangements should include an effective audit and review system to ensure that the information is current. Identifying and managing risk whether through pre-planning and managing emergencies, fire safety, crime and disorder initiatives, training or undertaking other day-to-day activities is part of the integrated risk management planning process.

Fire and rescue services already capture data and information to support the core functions of their organisations, such as:

- Operations
- Fire safety
- Emergency planning
- Fire investigations
- Health and safety
- Post-incident learning

The extent of the data collected and held and the policies and processes related to the use, storage and sharing of this data and information vary across fire and rescue services. However, data and information may be stored in isolation and the consequential data integration issues may affect efficient operational pre-planning and incident management.

Most operational risks are foreseeable. However, the risks posed by events such as adverse weather conditions or civil contingencies are not easily quantifiable. A combination of operational risk information with available generic risk assessments, local knowledge and professional judgement will help ensure appropriate risk management processes can be put in place.

An operational risk information management system should:

- Bring together outputs from existing and established systems
- Develop and support a common approach to the strategic and dynamic analysis of risk
- Determine the appropriate application of resources and processes to address the risks that affect the firefighter, other emergency responders, members of the public, the environment and so on

The Fire and Rescue Service Operational Guidance - (Operational Risk Information March 2012; Section 3) report into providing mobile data examined the information requirements for the roles that support incident ground operations. This study identified that providing accurate, relevant and timely operational information was critical to all personnel. These three elements are reflected in the data information triangle shown in Figure 1. The study also highlighted that providing too much information could put the recipient into 'information overload' and this situation may be as serious as not providing enough information. See National Operational Guidance: Incident command - [Personal resilience](#)



# INFORMATION TRIANGLE



All three elements shown in the apexes of the triangle must be satisfied to ensure effective information is exchanged and if not achieved the following may occur:

- RELEVANT and TIMELY but not accurate = MISLEADING or MISINFORMATION
- RELEVANT and ACCURATE but not TIMELY = Potentially too late to be of any value
- TIMELY and ACCURATE but not RELEVANT = INFORMATION OVERLOAD

Figure 1: Information triangle



**Hazard - ARCHIVED - Failure to receive accurate, timely and relevant information**

## Hazard Knowledge

For the fire and rescue service, information is a critical resource in achieving successful operations. The availability of accurate, timely and relevant information is vital for managerial functions to be performed effectively, such as planning, mobilising, organising, leading and controlling.

- Availability of information is applicable to processes and procedures used to gain it and the means to provide relevant information to those who need it
- Accuracy of information is determined by measuring the information against actual events or



occurrences

- Timeliness refers to the currency of the information when it is received
- Relevance concerns the situation or problem at hand. Relevant information is limited to that which can help solve a problem or contribute to a solution

Information management involves collecting and managing information from one or more sources and distributing the information to one or more audiences. This sometimes involves those who have a stake in, or a right to, that information.

Information sources and systems should support personnel's overall situational awareness of an event, which will inevitably present opportunities to have a significant effect on decision making. See Incident Command, Decision Control Process

In theory personnel always have some prior knowledge and understanding of events that are relevant to their decision making process. However additional or supporting information can and may modify their view of the event and potential outcomes, which may change a decision and the likely results. See Incident Command Decision Control Process



## Control measure - ARCHIVED - Make arrangements for emergency call management

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### Control measure knowledge

Emergency Fire Control Operations provides detailed hazard and control information relating to receiving emergency calls, mobilising resources and maintaining the information flow between service control and the incident ground.

### Strategic actions

### Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Adopt an information management methodology

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### Control measure knowledge

Information management is a discipline that governs accountability for the structure and design, storage and security, movement, quality, delivery and usage of information required for management and business intelligence purposes.

In an organisation, information management systems are like the central nervous system in the human body. They are the link that connects all the components together, enabling better operational decisions and responses to emergency incidents.

Information consists of data that has been processed, which is therefore meaningful to an end user. A system is a set of components that operate together to achieve a common purpose. An information management system collects, transmits, processes, and stores data. The system makes the conversion of data into management information for use by decision makers possible.

A management information system produces information that supports the management functions of an organisation (Davis & Olson, 1985; Lucas, 1990)

The Provision of Operational Risk Information System, as an example of good practice, seeks to provide a common approach to operational planning and management of risk and has been developed to assist fire and rescue services to:

- Meet their legislative responsibilities
- Maintain and where necessary improve their effectiveness and efficiency
- Manage the risk to their personnel
- Maintain interoperability with neighbouring fire and rescue services and other Category 1 and Category 2 responders
- Manage and reduce other risks in the communities that they serve

The Provision of Operational Risk Information System has been specifically designed to use existing data sets and supporting information, and is constructed to enable a flexible working framework where principles, rather than hard and fast rules, are used to underpin the methodology. It takes account of the need to identify and assess information, and its relevance to the operational pre-planning and management of risk to six risk groups.

See [Fire and Rescue Service Operational guidance: Operational Risk Information](#)





## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



Control measure - ARCHIVED - Provide an effective means of transferring hazardous material information to the incident ground

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## Control measure knowledge

Transferring critical hazardous material information is vital to scene safety and underpins all risk assessments, actions and decisions made by the incident commander.

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



Hazard - ARCHIVED - Failure to access information

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## Hazard Knowledge

When considering the storage of and access to risk information it is necessary to determine the





appropriate information, level of detail and the processes to be applied to reduce the risks presented. Additionally, fire and rescue services should consider how to identify and produce such information in an appropriate format according to the levels of information required by incident commanders and responders to allow for suitable and sufficient decision making to be carried out.



## Hazard - Failure to interpret information

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### Hazard Knowledge

The importance of a common approach is highlighted by the need to ensure operational risk information can be shared and understood across emergency services and between fire and rescue services. This is emphasised by increased integration of operational response, through intra and inter-operability arrangements. For further information see [JESIP Joint Doctrine](#).

Information should be presented to ensure that the detail, level and content supports incident commanders, firefighters and emergency responders without overwhelming or overloading them. The information should be clear, concise and readily understood by all. This enables effective decision making when resolving incidents.



## Control measure - ARCHIVED - Use common terms and symbols

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### Control measure knowledge

Without common terms and symbols there is a risk of misunderstanding between emergency responders and supporting organisations. At best this can lead to delays in obtaining support services and at worst people could be put at risk.

A common standard for terms and symbols is critical to effective interoperability between emergency responders and other supporting organisations, as well as intraoperability between fire and rescue services. Without a common approach and dialogue it would prove difficult to maintain interoperability between the fire and rescue services, other emergency responders and supporting organisations. This includes technical aspects of communications.

Issues include:

- Words, terms, phrases, symbols or graphics with different meanings or context
- Words, phrases, symbols or graphics with no meaning in other organisations

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



# Control measure - Command skills

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## Control measure knowledge

To deliver assertive, effective and safe incident command, incident commanders should be competent and able to understand the situation as it unfolds. They should be able to:

- Identify and prioritise problems and develop a plan to resolve the incident
- Communicate this plan to others
- Co-ordinate and control activity in line with their plan
- Display the leadership needed to resolve the incident and operate effectively under the pressures of an incident

These qualities are known as command skills. These skills are outlined in detail in [The Foundation for Incident Command](#).

An incident commander will need to practice their role. This will help them to apply their leadership skills, knowledge and understanding to be assertive, effective and safe.

Command competence is made up of a number of components. An individual's personal qualities and attributes are as important as their knowledge and understanding. Fire and rescue services should design and put in place a framework of competence for their incident commanders. This framework should equip incident commanders with:



- Behaviours
- Skills
- Knowledge of policies and standard operational procedures
- Understanding of their responsibility for the health, safety and welfare of others

It is accepted that knowledge and skills will fade when not in regular use and this may affect competence. This process is known as skills decay. Fire and rescue services should have an established maintenance of competence system that clearly identifies when and how an area of competence is to be maintained. This maintenance of competence can be achieved through the use of continuation training.

The training frequency identified by a fire and rescue service to maintain competence should take account of each individual's ability to acquire and maintain skills, and the fire and rescue authority's risk profile to ensure their risk management plans are effectively delivered. This is done to minimise skills decay and ensure personnel are competent to undertake their role safely and effectively.

Fire and rescue services should have methods of measuring and monitoring how effectively their incident commanders are performing. Incident commanders should also take personal responsibility to identify, develop and maintain their command skills.

Fire and rescue services should provide operational assurance during an incident and should consider the most suitable ways of doing so. This active monitoring should help identify when the incident commander performed well, or did not act as expected or in line with training and guidance. It can provide support for them at the incident if they need it.

As part of the incident or training debrief process, the incident commander should seek feedback on their performance in resolving the incident. This allows them to identify best practice and where they can make improvements in the future.

## **Strategic actions**

Fire and rescue services should:

- Select, prepare and develop incident commanders to ensure they can use command skills effectively when commanding an incident
- Provide appropriate opportunity for practice under realistic pressures; command skills are complex in nature and can be developed with understanding and practice
- Foster an operational learning and development ethos where personnel are trained in and regularly practice command. To do this, the service should encourage a culture of empowerment and acceptance of responsibility
- Ensure all operational policies, procedures and training materials are consistent with the



service's approach to incident command. The service should understand and clearly articulate its command ethos to help ensure incident commanders are aware of the service's expectations

- ARCHIVE - Recognise the importance of incident commanders having effective command skills. They should ensure that these skills form the basis for all command development programmes. Without good command skills, the commander will not be able to effectively put in place the technical aspects of incident command
- ARCHIVE - Have systems and processes to develop command skills at all levels and to actively monitor performance and behaviour of incident commanders at operational incidents
- ARCHIVE - Consider holding a personal review at the conclusion of an incident. Taking the time to reflect can help individuals to review the way they acted and the decisions they made. This will allow them to recognise and act to address any development they would benefit from.

## Tactical actions

Incident commanders should:

- Apply assertive, effective and safe command skills at all operational incidents
- Undertake a post-incident process of self-reflection on their performance in resolving an incident



## Control measure - Command roles and responsibilities

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### Control measure knowledge

It is important to have clearly-defined command roles and responsibilities, for single service incidents, through to multi-agency incidents.

The declaration of a major incident may instigate the requirement for additional resources from multiple agencies and hence additional strategic management which would be established both on-scene and at remote locations. For further information, see Major incidents.

### **Levels of command**

It is the responsibility of fire and rescue services to ensure that commanders at all levels achieve and maintain appropriate command competence. For further information on levels of command, command competence and validation and revalidation refer to the Incident command: Knowledge, skills and competence.

### **Incident command system**

For the incident command system to operate effectively, the incident commander and those in other command roles should be clearly identifiable. A system for identifying command roles visually is outlined in Incident command: Knowledge, skills and competence.

The incident command system provides a structure that ensures a competent person is responsible for command and control at operational, tactical and strategic levels. Personnel, sectors and functions should be appropriately supervised to achieve the incident plan. The system should be flexible enough to meet the demands of each type of incident.

The incident commander is the nominated competent and responsible person. They can delegate some responsibilities to others; however, they remain accountable for health and safety at an incident.

At a more challenging incident it may be appropriate for a senior officer to assume command. However, it may be more important to maintain continuity of incident command, rather than automatically hand this over on the arrival of a more senior officer. This arrangement allows a senior officer to take a variety of other roles, including providing tactical advice, mentoring and monitoring.

When making this decision, the on-coming senior officer should assess whether the existing incident commander is sufficiently capable to remain in that role, based on the type, size and complexity of the incident.

The most senior officer present always holds organisational accountability, which cannot be passed to another person.

Transfers should be kept to the minimum needed to resolve the incident or manage welfare. The transfer of command should be a formal handover process that is acknowledged and communicated. This is equally important when an incident escalates or scales down.

Everyone in the command structure should be informed of changes of incident commander, including the fire control room which can advise others. This should be appropriately recorded at the incident, as well as by the fire control room. There should be no doubt as to who is in command.

Further information may be found in Incident command: Knowledge, skills and competence: Organisation at an incident.

### **Interoperability and intraoperability**

Multi-agency interoperability is essential for incidents of all sizes. The [Joint Emergency Services Interoperability Principles Joint Doctrine](#) aims to promote greater consistency across emergency services. This includes the use of key terms and common terminology, which helps to develop a common understanding of the situation. Also refer to the [UK Civil Protection Lexicon](#).

There is no legislation that states the primacy of one agency over another. The Joint Doctrine gives further guidance on co-ordination between emergency services.

The key principles of effective joint working are:

- Co-location
- Communication
- Co-ordination
- Joint understanding of risk
- Shared situational awareness

A number of commercial or industrial sites will have their own fire and rescue services, for example, airports or oil refineries. Fire and rescue services should develop local arrangements that define the roles and responsibilities of each agency attending an emergency, for example, transfer of command.

It is important that fire and rescue services can provide an effective response to local, cross-border and national incidents. The national frameworks support the principles of national resilience. Fire and rescue services need an understanding of resources and capabilities available to them.

Pre-planning should include developing local arrangements with neighbouring fire and rescue services and other agencies. Those arrangements may assign responsibilities or primacy to a lead agency. They might base this on the nature of the incident or other relevant factors. This may need to change to reflect the changing phases of an incident.

Cross-border and multi-agency arrangements should be periodically tested under realistic conditions. The outcomes of these exercises should be used to continuously improve future performance.

Joint training is also valuable and will assist in identifying differences in policies or procedures, which should help to avoid confusion at incidents.

## Strategic actions

Fire and rescue services should:

- Develop local arrangements with neighbouring fire and rescue services and other agencies that define command roles, responsibilities and expectations
- Have regular contact with neighbouring services to ensure that appropriate cross-border command structure plans are in place
- Ensure that JESIP principles have been adopted and embedded in service procedures
- Develop robust systems to ensure that the handover of command is structured and does not compromise the safe management of the incident

## Tactical actions

Incident commanders should:

- Assign command roles and communicate to other responding agencies
- Ensure a formal handover process is used whenever command of an incident is transferred
- Ensure everyone in the command structure and the fire control room are informed of the change of incident commander
- Record the details of the transfer of command; this should be done at the incident ground and in the fire control room
- Consider the JESIP principles at all incidents involving multi-agency operations







## Hazard - Failure to transfer information

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### Hazard Knowledge

The transfer of information between single and multi-agency responders is key in ensuring a full appreciation of the situation and the circumstances specific to the incident or emergency.

A successful transfer of information will lead to a clear understanding of hazards and risks, operational tactics, control measures and procedures being employed.

Misinformation or a breakdown in communication can lead to unsafe systems of work, and uncoordinated or ineffectual activities being implemented, thus resulting in a failure to achieve priorities and objectives. It can also lead to inefficient use of resources in the operational plan.

Detailed knowledge and guidance can be found in:

- [The Foundation for Incident Command](#)
- National Operational Guidance: [Incident command](#)
- The [Joint Emergency Services Interoperability Principles \(JESIP\)](#)



### Control measure - Risk assessment at an incident

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#### Control measure knowledge

An incident ground is an operational workplace and the law requires fire and rescue services to assess and reduce the risk to personnel as far as is reasonably practicable. As well as this duty of care to fire and rescue personnel, there is also a duty to safeguard others.

The objectives for fire and rescue services are to resolve incidents with minimal impact to the community, and to prevent or minimise harm to people and the environment.

A safe working area should be established as soon as is practicable. In order to ensure this, incident commanders will need to:

- Identify any hazards or risks

- Select the most appropriate control measures
- Consider the benefits of proceeding with actions, taking account of the risk
- Take into account any time constraints

Safe systems of work must be put in place, and personnel must ensure they develop, maintain and review these systems throughout the incident. To perform an effective risk assessment, incident commanders should understand the following concepts:

- Hazards: Events or situations with the potential to cause:
  - Death
  - Physical harm
  - Psychological harm
  - Damage to or loss of property
  - Damage to or disruption of the environment
  - Disruption to economic, social and political structures
- Risks: A risk is the likelihood that a hazard will actually cause its adverse effects, together with a measure of the effect
- Control measures: Measures to reduce the likelihood of exposure to a hazard from a given risk, or to reduce the impacts of that exposure

The [HSE hierarchy of control](#) gives further examples of how control measures can be applied at an incident.

Risk assessment at incidents breaks down into a number of parts:

- Individual risk assessment
- Dynamic risk assessment
- Analytical risk assessment

Further information about risk assessments is provided in Incident command: [Knowledge, skills and competence](#).

### **Individual risk assessment**

Individual risk assessment helps personnel remain safe when working unsupervised.

Further information may be found in Incident command: Knowledge, skills and competence: [Risk assessments](#).

### **Dynamic risk assessment**

Dynamic risk assessment (DRA) describes the assessment of risk in a rapidly changing environment at an incident where decisions are sometimes made in fast-moving situations, with incomplete or

inaccurate information. Elements of the DRA process include:

- Evaluating the situation, including consideration of who might be harmed and how
- Benefits of actions proportionate to risk
- Selecting systems of work
- Declaring the tactical mode
- Tactical control
- Additional or alternative control measures

The outcome of the DRA will contribute to the incident commander's operational plan. It helps to inform whether personnel should be operating in the hazard area. This in turn determines the tactical mode.

### **Analytical risk assessment**

Analytical risk assessments (ARA) form the basis of a more detailed incident risk assessment as the incident progresses or becomes more complex. They should be formally recorded and carried out as soon as time or resources permit and at suitable intervals thereafter.

### **Strategic actions**

Fire and rescue services should:

- Have systems and methods in place to support the carrying out, sharing and recording of risk assessments

### **Tactical actions**

Incident commanders must:

- Carry out a dynamic risk assessment, identify hazards, evaluate risk and implement safe systems of work
- Identify and communicate the hazard area and establish a safe working area as soon as is practicable
- Continually review the risk assessment using situational awareness gathered as the incident progresses

Incident commanders should:

- Carry out and formally record analytical risk assessments at suitable intervals
- Communicate findings of analytical risk assessment to all personnel and other agencies
- Ensure that all personnel are briefed on the current hazards, risks, control measures and tactical mode



## Control measure - Effective communication

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### Control measure knowledge

The aim at every incident is to integrate communications and decision-making between the incident commander, operational personnel and fire control rooms.

Effective communication is fundamental to achieving successful and safe resolution of incidents. It provides the incident commander with knowledge about the situation and progress of tasks. Obtaining accurate and timely information is crucial to underpin situational awareness and subsequent decision-making. It helps the incident commander perform the role in a confident and determined manner and thereby assert their leadership and authority.

Communication also plays a vital role in co-ordinating activities, completing tasks and handover of command. Sharing accurate and timely information is also critical for helping others to have a common understanding of the situation, what is happening and what needs to happen next. Even the most effective plans will only work if the people putting them into practice understand them.

As well as exchanging information, good communication helps to build relationships between people. These relationships are important so that people are effective when they carry out their tasks to resolve the incident. Incident commanders should be aware that effective communication is essential for good leadership and makes it easier for people to follow instructions, understand briefings and have confidence in what is being stated.

Effective communication should:

- Provide information that is:

- Clear
- Relevant and concise
- Timely
- Be easily understood
- Be delivered confidently
- Include active listening
- Ensure verbal and non-verbal communications are aligned
- Ensure assumptions are questioned

Key principles should be considered when establishing an effective communication strategy to ensure:

- The communication structure and strategy is appropriate for the size, type and location of the incident
- Communications will be effective and resilient
- That information received in support of the incident is accurate, appropriate and timely
- That information is obtained from a reliable and credible source, or if not that it is checked and verified
- That appropriate methods of communicating information are used if there are security implications, or the need to relay sensitive or distressing information
- The appropriate recipients are provided with relevant information, via an appropriate method
- The relevance of the information

A good flow of information is one of the most important assets for an incident. An incident commander should ensure they:

- Gather information, issue orders and receive situation reports
- Issue orders to personnel
- Receive situation reports from all areas, including sector commanders
- Assess and provide for the needs of other agencies, and plan to meet with them
- Carry out a risk assessment and add this to the briefing on arrival
- Brief personnel about the tasks they need to perform and the hazards and risks they face
- Thoroughly brief personnel to share any safety critical information

A structured method, such as using an IIMARCH (Information, Intent, Method, Administration, Risk assessment, Communications and Humanitarian issues) template, may help incident commanders when preparing a brief. Further information on this approach, and a Word version of the IIMARCH template, can be found on the [JESIP website](#). The [JESIP Mobile App](#) includes a prompt for use of the IIMARCH briefing tool, with the ability to share.

For multi-agency incidents the M/ETHANE message protocol can be used to exchange information about the incident with other responders via the fire control room and other agencies' control

rooms.

Incident commanders may also hold briefings on the way to an incident. The extent of the briefing will depend on the type and scale of the incident. If personnel have little experience of the incident type, or there is high risk, a comprehensive briefing should be provided.

It will be necessary to organise safety briefings. As the incident develops, or if the risk of injury increases, those briefings may need to be more comprehensive.

Incident commanders should also establish suitable arrangements for communications. This is usually the role of command support under the guidance of the incident commander, and may include:

- Establishing communication links with fire control rooms
- Ensuring they correctly assign radio channels and call signs
- Establishing communications with other agencies
- The use of talk groups
- Requesting the support of a communications tactical adviser
- Establishing communications with sector commanders and other command support functions to receive regular situation reports
- Ensuring sector commanders can communicate between themselves
- Using local systems; some new and complex buildings and structures, including those extending underground, have communication systems installed for use by emergency services

### **Effective handover**

Ensuring there is an effective handover between commanders is a crucial step in the handing over of command. It is an important stage in the formation of the new commander's situational awareness, which will be partially based on the situational awareness of the current commander and will be further developed from the range of information that will be gathered. Failure to conduct an effective handover can lead to poor situational awareness and can result in inappropriate or ineffective decisions being made.

Handovers should be conducted in a systematic way. There are a range of methods for handing over, which should include:

- Information on the incident
- Information on the risks
- Information on the resources
- The plan, including:
  - Objectives
  - Tactical priorities



- Operational tactics
- The incident command structure and communication lines
- Key decisions, using the decision controls to articulate for each:
  - What the goals were
  - What they expected to happen
  - How the benefits justified the risks

Further information may be found in Incident command: Knowledge, skills and competence: [Interpersonal communication](#).

## Strategic actions

Fire and rescue services should:

- Ensure there is resilience in operational communication strategies and equipment
- Test the compatibility of communications equipment, systems and processes with neighbouring fire and rescue services and other agencies
- Ensure that they have appropriate communications systems in place at incidents
- Have contingency arrangements for reinstating operational communication, in the event of equipment or strategy failure

## Tactical actions

Incident commanders should:

- Establish and maintain an incident ground communication plan considering other agencies and remote resources
- Exchange information about the incident with fire control rooms in a timely way
- Provide regular situation updates to all responders
- Establish resilient telecommunications with other responding agencies and consider talk groups



- Communicate objectives, priorities and tactics to be adopted in resolving the incident
- Ensure that the location of personnel is accurately reported and recorded
- Deliver clear, concise and timely briefings to crews, command support functions and other agencies
- Provide an effective handover when handing over command
- Receive an effective handover when taking over command
- Maintain an accurate record of information received from the incident ground
- Use the M/ETHANE message protocol to exchange information about the incident with other responders via the fire control room



## Control measure - Command roles and responsibilities

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### Control measure knowledge

It is important to have clearly-defined command roles and responsibilities, for single service incidents, through to multi-agency incidents.

The declaration of a major incident may instigate the requirement for additional resources from multiple agencies and hence additional strategic management which would be established both on-scene and at remote locations. For further information, see Major incidents.

### Levels of command

It is the responsibility of fire and rescue services to ensure that commanders at all levels achieve and maintain appropriate command competence. For further information on levels of command, command competence and validation and revalidation refer to the Incident command: Knowledge, skills and competence.

### Incident command system

For the incident command system to operate effectively, the incident commander and those in other command roles should be clearly identifiable. A system for identifying command roles visually is outlined in Incident command: Knowledge, skills and competence.

The incident command system provides a structure that ensures a competent person is responsible for command and control at operational, tactical and strategic levels. Personnel, sectors and functions should be appropriately supervised to achieve the incident plan. The system should be flexible enough to meet the demands of each type of incident.

The incident commander is the nominated competent and responsible person. They can delegate some responsibilities to others; however, they remain accountable for health and safety at an incident.

At a more challenging incident it may be appropriate for a senior officer to assume command. However, it may be more important to maintain continuity of incident command, rather than automatically hand this over on the arrival of a more senior officer. This arrangement allows a senior officer to take a variety of other roles, including providing tactical advice, mentoring and monitoring.

When making this decision, the on-coming senior officer should assess whether the existing incident commander is sufficiently capable to remain in that role, based on the type, size and complexity of the incident.

The most senior officer present always holds organisational accountability, which cannot be passed to another person.

Transfers should be kept to the minimum needed to resolve the incident or manage welfare. The transfer of command should be a formal handover process that is acknowledged and communicated. This is equally important when an incident escalates or scales down.

Everyone in the command structure should be informed of changes of incident commander, including the fire control room which can advise others. This should be appropriately recorded at the incident, as well as by the fire control room. There should be no doubt as to who is in command.

Further information may be found in Incident command: Knowledge, skills and competence: Organisation at an incident.

### **Interoperability and intraoperability**

Multi-agency interoperability is essential for incidents of all sizes. The [Joint Emergency Services Interoperability Principles Joint Doctrine](#) aims to promote greater consistency across emergency services. This includes the use of key terms and common terminology, which helps to develop a

common understanding of the situation. Also refer to the [UK Civil Protection Lexicon](#).

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- Shared situational awareness

A number of commercial or industrial sites will have their own fire and rescue services, for example, airports or oil refineries. Fire and rescue services should develop local arrangements that define the roles and responsibilities of each agency attending an emergency, for example, transfer of command.

It is important that fire and rescue services can provide an effective response to local, cross-border and national incidents. The national frameworks support the principles of national resilience. Fire and rescue services need an understanding of resources and capabilities available to them.

Pre-planning should include developing local arrangements with neighbouring fire and rescue services and other agencies. Those arrangements may assign responsibilities or primacy to a lead agency. They might base this on the nature of the incident or other relevant factors. This may need to change to reflect the changing phases of an incident.

Cross-border and multi-agency arrangements should be periodically tested under realistic conditions. The outcomes of these exercises should be used to continuously improve future performance.

Joint training is also valuable and will assist in identifying differences in policies or procedures, which should help to avoid confusion at incidents.

## **Strategic actions**

Fire and rescue services should:

- Develop local arrangements with neighbouring fire and rescue services and other agencies that define command roles, responsibilities and expectations
- Have regular contact with neighbouring services to ensure that appropriate cross-border

command structure plans are in place

- Ensure that JESIP principles have been adopted and embedded in service procedures
- Develop robust systems to ensure that the handover of command is structured and does not compromise the safe management of the incident

## Tactical actions

Incident commanders should:

- Assign command roles and communicate to other responding agencies
- Ensure a formal handover process is used whenever command of an incident is transferred
- Ensure everyone in the command structure and the fire control room are informed of the change of incident commander
- Record the details of the transfer of command; this should be done at the incident ground and in the fire control room
- Consider the JESIP principles at all incidents involving multi-agency operations



## Hazard - Failure to review information

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### Hazard Knowledge

The commitment and leadership of the strategic management team is essential to the success of any management system. The service strategic operational risk management policy should set strategic direction, demonstrating how the duty for the provision of operational risk information is linked to the operational duties of firefighters and commanders. It should also describe how this information can be shared with other agencies and where this would be appropriate.

Managing operational risk information is part of an integrated approach to managing risk and

ensuring safe systems of work for all employees. Policies should:

- Determine specific responsibility for operational risk information, with a defined role in terms of establishing, implementing and maintaining processes including audit and review, in line with the approach advocated by the HSE in Managing for health and safety (HSG 65).
- Determine and make available those resources required to implement, maintain and develop these processes
- Ensure there is clarity of responsibility between partner organisations, different functions in the fire and rescue service and the roles and responsibilities of managers
- Ensure clear documentation, document control and security procedures are in place
- Ensure that allocation of roles and responsibilities takes account of the competency, level of authority and capacity of individual employees
- Ensure all aspects of information management (relating to providing information for operational pre-planning, incident management and post-incident analysis) is subject to review
- Ensure continuing performance monitoring for relevant personnel, including assessments of their competency and use of the system and ensure any gaps in the effective management of the system are identified
- Ensure that there are effective communication and data sharing protocols in the organisation, and between the partner organisations involved in supplying and receiving operational risk information

Organisational planning should establish, implement and maintain procedures for hazard identification, risk assessment and determining the necessary controls. In the context of operational risk information, the hazard identification and risk assessment processes should take into account the:

- Range of possible activities related to firefighting, road traffic collisions and other emergencies
- Range of employees who may be involved in using operational risk information
- Capabilities, and likely behavioural responses, of those employees and other persons likely to be involved
- Incident command system and management procedures used
- Protective equipment, vehicles, rescue and firefighting equipment and any limitations of employees and their equipment

To judge the effectiveness of arrangements for providing and managing operational risk information, procedures should be in place to monitor performance on a regular basis. The procedures should:

- Provide qualitative and quantitative measures of performance at each stage, including post incident reviews

- Regularly monitor and report on the measures relating to performance of the plan
- Record and communicate the results of monitoring - providing information on how the system operates in practice, identifying areas where corrective action is required, providing a basis for continual improvement and providing feedback

Policies and procedures developed for managing operational risk information should be consistent and should comply with data protection and information system security



## Control measure - ARCHIVED - Establish an assurance process

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### Control measure knowledge

Operational assurance deals with the effectiveness of fire and rescue service arrangements for implementing policies, procedures, guidance, hazard and risk assessments. Observation can enable fire and rescue services to maintain and improve their ability to manage such operational risks, by learning through audits, monitoring and performance reviews.

Auditing is specific in that it is a structured process for collecting information and data on the efficiency, effectiveness and reliability of operational information. Auditing should define the areas to be covered and the benchmarks against which the information will be measured.

The policy should include:

- Preventing injury and ill health of firefighters and other emergency responders
- Managing and mitigating risks in the community
- Continual improvement in providing accurate, relevant and timely operational information
- Complying with the legal duties of fire and rescue authorities in relation to operational risk information
- Complying with formal guidance and 'best practice' models
- Audit and review mechanisms

### Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Manage performance

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### Control measure knowledge

Measuring performance against predetermined standards provides information on how effectively fire and rescue services are controlling risks, and provides feedback that influences organisational learning and the decision making process.

Arrangements should also be made to review any circumstances where non-conformity is identified, either as a result of training, at incidents or through regular supervision of the arrangements. The reasons for nonconformity should be communicated so that lessons learned by one part of the organisation can benefit the entire organisation and feed the process of continuous improvement. It is recommended that these findings are shared with other fire and rescue services and other emergency responders.

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Hazard - ARCHIVED - Failure to record information

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## Hazard Knowledge

Policies and procedures should reflect that:

- All service activities are part of an integrated approach to managing risk, thereby ensuring safe systems of work for all employees
- All relevant information is recorded and available for those who legitimately need to access the information
- These policies and procedures are 'owned' at strategic management level

In developing the policy, the organisation should consider:

- Legislative duties, outlined in Emergency Fire Control Operations.
- Co-ordination with other core functions or policies, notably health and safety, integrated risk management, fire safety enforcement and civil resilience
- The needs of those working in the organisation and the hazards they face
- The historical and current performance of the organisation in providing operational risk information and the impact on health and safety and community safety
- The opportunities and needs for continual improvement
- The views of interested parties, including other emergency responders
- Confirming or establishing realistic and achievable objectives



## Control measure - ARCHIVED - Take legislative duties into account

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### Control measure knowledge

Fire and rescue authorities should take into account the legal responsibilities placed on them, for example Fire and Rescue Services Act 2004, Data Protection Act 1998, and in particular the requirement that all relevant data held by the fire and rescue service should be available and should be used to reduce and manage operational risk, whether this be to firefighters, other service personnel or others for which the fire and rescue authority is responsible.

### Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Use national incident recording systems

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### Control measure knowledge

An incident recording system (IRS) is a system that enables data on all incidents attended by the fire and rescue service to be collected electronically, providing a national standard of data collection.

The IRS has modernised methods of data gathering to meet new business needs and has replaced manual data input of paper records with a fully automated electronic data capture system. IRS covers all incident types attended by the service, thus providing qualitative data for fire and rescue service planning and performance indicators.

The system will also supply the future data requirements for the fire and rescue service, improving the timeliness and accuracy of data. It may be used to underpin research and development.

Poor quality or inconsistent information will have the following impact:

- Inaccurate performance information
- Poor planning, risk management and decision making
- Inaccurate performance information
- Inaccurate information being shared with partners and stakeholders
- Gathering high quality information from fire and rescue service attended incidents, is key to understanding and managing risks using the appropriate resources.

### Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Use debrief management systems

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### Control measure knowledge

Debrief management systems are essential to ensure a robust and consistent means of capturing, or 'closing the loop' of, the outcomes of monitoring, audit and/or review of all operational tasks and activities.

An incident debrief procedure plays a vital part in both personal and organisational learning. It fulfils a critical or key need for effective learning and development by connecting a root cause with an associated effect. Once identified, this process will enable clear plans or programmes to be agreed, which can be used to address or improve any shortfalls in policies, procedures, guidance, processes or information.

Debriefs are a key component of continuous improvement in all organisations

### Strategic actions

### Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Use information management systems

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### Control measure knowledge

See National Operational Guidance: [Operations](#) - Failure to access information

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Hazard - Failure to share information

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### Hazard Knowledge

To be effective, new management systems should be capable of integrating with existing systems or disciplines in the organisation, in particular, managing health and safety. Fire and rescue services should consider the integration of fire safety and operational data and ensure that organisational skills are appropriately applied at this critical stage in the operational risk management process.

Managing operational risk information must take into account the existing and future needs for interoperability and mutual aid between neighbouring fire and rescue services and other Category 1 Responders (Civil Contingencies Act 2004). Financial, human and other resources specific to operations should be assessed, including a plan for appropriate technology that takes into account future functionality requirements and the appropriate expertise and training of staff.



## Control measure - ARCHIVED - Consider intraoperability and interoperability

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### Control measure knowledge

The fire and rescue national frameworks state that fire and rescue services must collaborate with other fire and rescue services, other emergency services, wider Category 1 and 2 responders and local emergency planning groups, to ensure intraoperability and interoperability.

This includes common and compatible communications systems, equipment, command and

control and co-ordination arrangements. Sharing information, intelligence and data effectively is key to such collaboration, ensuring an effective and co-ordinated response to foreseeable risks and emergencies.

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - ARCHIVED - Use common terms and symbols

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### Control measure knowledge

Without common terms and symbols there is a risk of misunderstanding between emergency responders and supporting organisations. At best this can lead to delays in obtaining support services and at worst people could be put at risk.

A common standard for terms and symbols is critical to effective interoperability between emergency responders and other supporting organisations, as well as intraoperability between fire and rescue services. Without a common approach and dialogue it would prove difficult to maintain interoperability between the fire and rescue services, other emergency responders and supporting organisations. This includes technical aspects of communications.

Issues include:

- Words, terms, phrases, symbols or graphics with different meanings or context
- Words, phrases, symbols or graphics with no meaning in other organisations

## Strategic actions

## Tactical actions

There are no tactical actions associated with this control measure.



## Control measure - Liaise with local emergency planning groups

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### Control measure knowledge

Information is critical to emergency response and recovery, yet maintaining the flow of information between agencies, with partners, and to the wider public, is extremely challenging under emergency conditions. The importance of information for emergency responders and those affected by events must not be underestimated.

Effective information management depends on the appropriate preparatory measures being in place to build situational awareness and on developing a Common Recognised Information Picture (CRIP) at the local, sub-national and national levels (if appropriate). Such measures will need to support:

- Transmitting and collating potentially high volumes of information from multiple sources
- Assessing collated information to ensure its relevance, accuracy, timeliness, accessibility, interpretability and transparency
- Translating available information into appropriate information products; for example, briefing the Strategic Co-ordinating Group or national groups, or releasing it to the media for public information

Particular challenges that may need to be addressed in collating, assessing, validating and disseminating information under emergency conditions may include:

- Information management procedures varying between agencies
- Perspectives on the event or situation differing
- Mistakes and misunderstandings occurring under pressure
- Overloaded communications

### Strategic actions

Fire and rescue services should:



- Work with others to establish systematic information management systems and embed them in multi-agency emergency management arrangements to enable the right balance to be struck - in particular, sharing information in a way that is responsive to the needs of emergency responders, and is compliant with data protection and other legislation, needs to be thoroughly understood and tested
- Establish compatible terminology, abbreviations, communication systems and risk information for joint working with neighbouring fire and rescue services
- Ensure that incident commanders are familiar with the responsibilities of other agencies, Category 1 and Category 2 responders and the roles of their representatives that may attend operational incidents – refer to the JESIP publication, [Joint Doctrine: the interoperability framework](#)

## Tactical actions

Incident commanders should:

- Use common terminology contained in the Cabinet Office Lexicon
- Be familiar with the responsibilities of other Category 1 and 2 responders and the roles of their representatives that may attend operational incidents
- Consider requesting information that may be held by other category 1 and 2 responder agencies



## Control measure - ARCHIVED - Prepare, test and exercise emergency plans

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### Control measure knowledge

See National Operational Guidance: Operations - [Information gathering](#)

The development of emergency response plans with specialist advisers, other agencies and operational personnel will focus the content of the plans to identify key specific objectives, identify options, provide tactics and ensure multi-agency agreement.





All plans should be tested and exercised in accordance with the enforcing authority's requirements, which should, in any case, be proportionate to the risks posed.

## **Strategic actions**

## **Tactical actions**

There are no tactical actions associated with this control measure.