

# RESPONDING TO A CBRN(e) EVENT:

JOINT OPERATING PRINCIPLES FOR  
THE EMERGENCY SERVICES

FIRST EDITION SEPTEMBER 2016



**JESIP**

Working Together – Saving Lives

## FOREWORD

Welcome to the first edition of *Responding To A CBRN(e) Event: Joint Operating Principles for the Emergency Services*.

This guidance has been developed to reflect live exercising and operational learning that has taken place and influenced the response. It aligns with the [Joint Doctrine: The Interoperability Framework](#)<sup>1</sup> produced by the Joint Emergency Services Interoperability Programme (JESIP) and the National Response Framework: *Potential CBRN(e) Incidents: A Response Framework for the Emergency Services*.

This guidance is intended to guide the response to CBRN(e) terrorism<sup>2</sup> from the Initial Operational Response, through the transition into the Specialist Operational Response, aligning to the Pursue<sup>3</sup> element and onwards into the recovery phase.

The Initial Operational Response starts from the very first call to the emergency services. First responders from all agencies must work together quickly and efficiently to save life and then seamlessly hand over to specialist assets.

This guidance is designed to provide a structured process to assist management of the multi-agency response to a CBRN(e) event. It should be used in conjunction with multi-agency doctrine for CBRN(e) response and provides the basis for local planning arrangements.

The principles that it sets out have been jointly developed by the Emergency Services and act as a significant enabler in the delivery of a consistent and interoperable UK-wide emergency service response.

This guidance does not replace existing major incident procedures and must be used in conjunction with Standard Operating Procedures.

These Joint Operating Principles encompass the Initial Operational Response, the Specialist Operational Response and the transition between the two phases. Through the entirety of the CBRN(e) event it is essential that specialist responders and commanders are competent in the implementation of these Joint Operating Principles. Organisations are responsible for ensuring systems are in place for the training, assessment and assurance of staff against these Joint Operating Principles.

As the response capability develops this document will be reviewed and any revisions circulated as necessary.

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1. First published by JESIP in October 2013

2. CBRN terrorism entails the assumption or knowledge, based on intelligence or actual evidence, of actual or threatened dispersal of chemical, biological, radiological or nuclear material (either on their own or with explosives), with deliberate, criminal, malicious or murderous intent, targeted at a given population or economic or symbolic points. Source: National CBRN Tacticians Forum (2005 Edition 1) Multi-Agency National Concept of Operations for CBRN Terrorism (MANCONOPS).

3. Pursue is one of the four pillars of CONTEST, the UK Government counter terrorism strategy, alongside Prevent, Prepare & Protect. <https://www.gov.uk/government/publications/counter-terrorism-strategy-contest>

If you have any comments about the document, or any questions as to how you might act upon it, please contact the National CBRN Centre.



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## INTRODUCTION

A terrorist attack involving the use of chemical, biological, radiological, nuclear (CBRN) materials, potentially also involving explosives (e) either as a means of dissemination or an additional method of attack, could inflict large numbers of casualties and would represent a major incident for the emergency services.

It is recognised that the command and control of the multi-agency response to a terrorist incident of this nature will be challenging, particularly as it is likely to involve:

- high threat scenarios
- multi-agency resources
- several police force areas
- significant support from partners
- intense political and media interest
- an enduring impact upon communities<sup>4</sup>

It will therefore require a dynamic and joint approach by the emergency services and other agencies to deliver an effective response.

Following a Home Office review of the 2006 'Model Response' it was agreed by Ministers in December 2014 that a new National CBRN(e) Response framework would be implemented that consists of three main components:

- Initial Operational Response (IOR)
- Transition
- Specialist Operational Response (SOR)

The new National CBRN(e) Response is aligned to JESIP and aims to create a faster, more agile, flexible, scalable and interoperable response which is readily available and proportionate to the risk. The three Chief Officer Associations have recognised the importance of delivering a consistent UK emergency service response which has been captured in joint doctrine and these *CBRN(e) Joint Operating Principles for the Emergency Services (JOPs)* are a key part of meeting that requirement.

The National CBRN Centre has been responsible for developing the CBRN(e) JOPs and implementing the new National CBRN(e) Response as part of their mission: 'To develop, monitor and maintain the CBRN capability of the UK police service to respond to CBRN terrorism, commensurate with the threat. Ensuring emergency services are able to inter-operate to protect the public from significant threat, risk and harm as a consequence of a CBRN(e) incident'.

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4. The 2015 Command, Control and Coordination of Major CT Operations' guidance recognises these complexities and provides additional considerations for the CBRN(e).

The aim of the CBRN(e) JOPs is to achieve enhanced operational interoperability and consistency in the delivery of IOR and the SOR; greatly assisting in the provision of an effective multi-agency response to deliver immediate casualty care.

Operational interoperability is defined<sup>5</sup> as the extent to which organisations can work together coherently through:

1. shared ethos (of what matters most)
2. common doctrine (a common set of operating principals or guidance)
3. unified command (clarity of who is in charge of what, when and where)
4. compatible and reliable communication systems
5. shared language (that ensure common understanding in pressurised operating environments)
6. common equipment
7. common standards of professional practice

All supported through continuous capability building by:

- common training and exercising
- consistent occupational/operational competency
- shared learning and debriefing

Services have come a long way in improving operational interoperability through JESIP, but there is still much work to be done. These JOPs will build on that by improving interoperability further, increasing protection for the public and responders.

These JOPs bring together current best practice and add to major incident protocols that currently exist between police services, fire and rescue services and ambulance service trusts. It should be read alongside existing doctrine<sup>6</sup> as a guide for dealing with the particular challenges that this kind of event may pose.

The principles detailed in this document are not prescriptive, but are intended to provide an overarching framework for a standardised and interoperable approach across the United Kingdom.

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5. As detailed in the Third Report by Her Majesty's Inspectorate of Constabularies (HMIC) inspection into the Metropolitan Police Service (MPS) response to Stockwell (22 May 2009).

6. Including but not restricted to, Police Authorised Professional Practice (APP) and FRS National Operational Guidance.

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## JOINT OPERATING PRINCIPLES (JOPS)

These JOPs provide guidance on the key aspects of any multi-agency response that is critical to saving life and ensuring the protection of emergency service personnel.

They are founded on the following overarching assumptions:

- The nature of a CBRN(e) event requires that Commanders from each emergency services co-locate at scene as a matter of urgency to streamline the decision-making process.
- Joint decision-making at scene requires an appropriate level of command at that location and should be achieved through the use of the Joint Decision Model (JDM<sup>7</sup>).
- Agencies should identify, select and train personnel to carry out key command and support functions to enable effective decision-making.
- The JOPs must be flexible enough to apply to variations in national, regional and local capabilities.

These JOPs adhere to the JESIP principles for joint working which are co-location, communication, co-ordination, joint understanding of risk and shared situational awareness<sup>8</sup>.

A CBRN(e) event has many elements. The impact and response will vary depending upon the nature of the material and event, for example:

- A chemical attack may produce rapid onset of severe symptoms. Many chemical agents can be readily detected and potentially identified with specialist equipment.
- A biological release may not be identified for some time and may only be recognised through health monitoring. The scene of any release may be unidentified.
- A radiological release may be accompanied by explosives (a 'dirty bomb'), or the dispersal of radioactive particulates into the air, with no obvious sudden onset of symptoms.
- A nuclear attack is likely to be readily identified and result in immediate, catastrophic consequences and a long lasting radiation hazard.
- Explosives may be used as a means of dissemination for the above materials or, in its own right, as an additional method of attack. In the context of these JOPs the lower case (e) is used to differentiate the use of explosives only as a means of dissemination.

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7. Detailed in the guidance 'Joint Doctrine: The Interoperability Framework'

8. 'Principles for Joint Working' - JESIP Doctrine 2013

Whilst any such incident is ongoing there will be a continued threat to life. Uncertainty about release location(s), spread of contamination, intent and capability of the terrorists means that the management of life-saving interventions may be much more difficult than for other major incidents. The assumption will however be that once a CBRN(e) payload has been delivered, the perpetrators are unlikely to remain in the immediate vicinity, although they may present an ongoing threat in the wider area.

There are likely to be significant numbers of casualties. Such casualties may deteriorate rapidly or suffer life threatening downstream effects if not evacuated from the contaminated environment quickly. Prompt actions and clinical interventions (however basic) provided under the IOR or soon after can reasonably be expected to improve patient outcomes and limit the number of fatalities.

Commanders should consider the potential for further scenes to be identified and that the response may need to be able to support the exploitation of any production facility that might be discovered. Competing demands on specialist resources means that their use may need to be prioritised until support arrives.

The tasking<sup>9</sup> of Military Explosive Ordnance Disposal (EOD) resources must be considered in the early stages of a CBRN(e) event.

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9. Tasking is authorised under UK MACP standing arrangements via Police.

## INITIAL OPERATIONAL RESPONSE (IOR) LEADING INTO SPECIALIST OPERATIONAL RESPONSE (SOR)

The JOPs detailed below will help commanders to achieve consistency in effect and improved public protection.

- 1. Personnel from any emergency service can identify an incident as a suspected or potential CBRN(e) event. Such identification should be sufficient for all agencies to ensure IOR principles are followed and their SOR is activated.**

Suspicion that a CBRN(e) event may be underway or may have occurred should be shared amongst emergency service control rooms immediately. This includes the discovery of a device that has not yet activated or the presence of CBRN material, as the hazard at an early stage may be unknown<sup>10</sup>.

A CBRN(e) event is by definition terrorism, this can only be declared by the Police Senior National Coordinator.

It is accepted that from a FRS and ambulance service perspective the broad response to a hazardous material release (a HazMat incident) utilises most of the same resources and follows broadly similar processes as would be followed for a CBRN(e) event.

Early identification of a potential CBRN(e) event and rapid implementation of IOR is crucial to protecting lives of members of the public and responders. Scientific advice stresses the importance of starting IOR within 15 minutes of exposure and the positive impact it can have on survivability. **The faster the response the greater the chance of saving life.**

First responders presented with unexplained casualties should adhere to the Safety Triggers for Emergency Personnel Plus (*STEP 1-2-3 Plus*), detailed within the IOR guidance.

A CBRN(e) event may come to the attention of emergency services by various means. As the picture of what is actually occurring unfolds it is vital that the true nature of the incident is identified and shared at the earliest opportunity. Personnel from any emergency service should not hesitate to report that they suspect a CBRN(e) event has occurred or has the potential to occur.

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10. Where the discovery of CBRN material in any form arises as a result of an ongoing investigation the Counter Terrorism Unit Senior Investigating Officer (SIO) will determine the mechanism for notification to partners at an appropriate security level to maintain the integrity of the investigative and intelligence gathering process with due regard to the need to maintain public and personnel safety.

In the event that CBRN(e) release indicators<sup>11</sup> are first recognised by FRS or ambulance service personnel arrangements should be established for communicating this to the other emergency service control rooms immediately in order that IOR control room protocols can be implemented.

This situation may see the FRS and ambulance control room supervisors managing their resources in anticipation of an imminent declaration of a CBRN(e) event (for instance specialist personnel may be placed on short notice standby or tactically relocated). The M/ETHANE<sup>12</sup> mnemonic should be utilised for the passing of information.

It is the responsibility of the Police to formally declare that a CBRN(e) terrorist event is underway, however this may not be confirmed for some time and should not delay the IOR or SOR.

## **2. The police will inform emergency service partners immediately once a CBRN(e) event has been confirmed.**

As soon as the police has confirmed that the event is CBRN(e), the ambulance service and FRS control rooms should be notified immediately. It is imperative that this action is undertaken straight away so that contingency plans that were initiated when CBRN(e) was suspected can be enhanced to enable a co-ordinated, multi-agency response.

Any delay in notifying emergency service partners of the declaration could place emergency responders' lives at risk and hinder the implementation of an effective multi-agency response.

Due to the nature and complexity of a CBRN(e) event and the potential resource requirements, early consideration should be given to requesting mutual aid and the initiation of regional and national coordination arrangements for each organisation<sup>13</sup>.

The police Strategic Commander is responsible for ensuring that the confirmation of a CBRN(e) event is communicated to the Home Office - Office for Security and Counter Terrorism (OSCT) Duty Officer. This confirmation may result in a Government Co-ordination

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11. Visual indicators of a CBRN event may include all or some of the following: Dead or distressed people, birds and animals; Multiple individuals showing unexplained signs of skin, eye or airway irritation, nausea, vomiting, twitching, sweating, pin-point pupils, runny nose, disorientation, breathing difficulties, convulsions, and death: The presence of hazardous materials or unusual materials and equipment; Unexplained vapour or mist clouds; Unexplained oily droplets or films on surfaces or water; Withered plant life and vegetation.

12. See [JESIP Joint Doctrine: The Interoperability Framework](#)

13. Police Authorised Professional Practice – '*Mobilising*'; Fire and Rescue Service Operational Guidance – '*National Co-ordination and Advisory Framework*'; Ambulance Service – '*National Ambulance Service Coordination Centre Plan 2014*'.

Committee being formed, referred to as COBR (Cabinet Office Briefing Room) and the deployment of a Government Liaison Team to the Strategic Coordinating Group (SCG).

**3. Similar to other suspected or confirmed terrorist events the response to a CBRN(e) event will be co-ordinated by the police.**

The response to a CBRN(e) event will be police-led. It is however accepted that during the course of, or as a consequence of a CBRN(e) event, there may be some circumstances that require either the FRS or ambulance service to take a lead role commensurate with capability, capacity, statutory responsibility and cognisance of the perceived threats and hazards.

In particular:

- The ambulance service has statutory responsibility for the management of casualties which includes clinical decision making around decontamination, although the actual delivery of water based decontamination may be supported by the FRS.
- The FRS has the capability to implement safe systems of work in and around a hazardous environment in terms of access control, responder rescue, and detection, identification and monitoring of the hazards and a statutory responsibility in England to remove contaminants from people in the event of an emergency whilst protecting the environment as far as is practicable<sup>14</sup>.

The police will retain overall responsibility for co-ordinating the multi-agency response alongside responsibility for mitigating and managing any threat from perpetrators, co-ordinating public messaging and progressing the investigation.

**4. The police will instigate a three-way communication link between the emergency services' control rooms<sup>15</sup> as soon as a suspected CBRN(e) event is identified. This line of communication is maintained until ambulance and FRS representatives are operational within an agreed TCG or a stand-down is confirmed.**

All three agencies will agree when it is appropriate to discontinue this link.

Whilst control rooms may be best positioned to gain an overview of the incident, which could be multi-sited, it is imperative that On-Scene Commanders are fully supported and kept updated in fast time as the situation develops.

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14. Fire and Rescue Services (Emergencies) (England) Order 2007; Section 2

15. See [JESIP Joint Doctrine](#) for Control Room joint working guidance

The provision of unbroken communication links between control rooms should enable the timely passing of information and intelligence that will inform deployment decisions throughout the IOR phase and as the SOR is established.

The method of communications should be resilient throughout. Police control rooms will:

- Set up a conference call between the other emergency service control rooms. This may also include other agencies who can directly contribute to the information sharing for that incident.
- Establish interoperable voice communications to support commanders (this will normally be on a radio system). These will not be seen as an alternative to the co-location of commanders; they will support communication if co-location is difficult or if the process of co-locating is protracted.

**5. Commanders will jointly identify a Rendezvous Point (RVP), this will be reviewed as the response transitions to the SOR.**

RVPs must be positioned at a safe distance from the incident location(s), upwind and preferably uphill, but in a location from which assets can be rapidly deployed forward.

The Met Office Hazard Manager service<sup>16</sup> will inform the safe location of the RVP.

This location will be constantly reviewed to take into account the emerging circumstances. All staff attending an RVP should undertake area safety checks to minimise the risk of harm from secondary devices and perpetrators.

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16. The Met Office provides a range of services through Hazard Manager that help authorities prepare for and respond to emergency incidents that are caused or influenced by the weather. <http://www.metoffice.gov.uk/publicsector/hazardmanager>

**6. The key command and control elements of IOR and SOR are defined below:**

<b>Element</b>	<b>Definition</b>
Strategic Co-ordinating Group (SCG)	The SCG has overall responsibility for the multi-agency management of the emergency and establishing the policy and strategic framework within which lower levels of command and co-ordinating groups will operate.
Strategic Commander	The Strategic Commander is the command lead for the incident for each of the organisations involved in the response.
Tactical Co-ordinating Group (TCG)	The TCG is a multi-agency group of commanders responsible for interpreting the strategic direction (where strategic level command is instigated). They will determine, co-ordinate and support the delivery of a tactical response to an emergency.
Tactical Commander	A police Tactical Commander will lead the TCG. The FRS and ambulance service representatives of this group may be National Inter-agency Liaison Officers (NILO) or other suitably qualified officers.
Multi-agency On-Scene Command	The collective name given to the police, FRS and ambulance service commanders (and any other organisations present) that have come together at the forward command post to command, control and co-ordinate the delivery of the on-scene tactical plan.
On-Scene Commander <sup>17</sup>	An appointed police, FRS or ambulance service commander at the scene, who by applying the JESIP principles, is responsible for joint decision making to develop and deliver the on-scene element of the tactical plan.
Operational Command	Operational command of IOR and SOR transition will be reliant upon front-line Operational Commanders from all three services, using the JESIP principles, to deliver the response. Operational Commanders will be required to implement direction provided by their On-Scene or Tactical Commander.

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17. On-Scene Commander may be called Incident Commander in Scotland.

Element	Definition
Forward Command Post (FCP) <sup>18</sup>	The location from which the on-scene command operates.
Geographical and Functional Roles	Geographical and functional roles will be assigned by the Operational Commanders to deliver the joint tactical plan.
Joint Understanding of Risk	The process by which commanders work towards a common understanding of the threats, hazards and risks in order to inform decisions on deployments and the control measures required to mitigate any identified risks to an acceptable level.
Hot zone	The area where the initial release occurs or disperses to. It will be the area which may pose an immediate threat to the health and safety of all those located within it and is the area of greatest risk.
Warm zone	An area uncontaminated by the initial release of a substance, which becomes contaminated by the movement of people or vehicles. The warm zone will be extended to include the area of decontamination activity. These areas cannot be guaranteed as free from contamination.
Cold zone	The uncontaminated area between the inner cordon and the outer cordon where it has been assessed that there is no immediate threat to life.
Limits of Exploitation	The furthest points to which emergency responders will operate in warm or hot zones. Limits of exploitation will be jointly agreed amongst On-Scene Commanders/Incident Officers as part of an ongoing joint assessment of risk.
Snatch rescue	A tactical option focused on the immediate extrication of patients to an area of relative safety (such as the Casualty Collection Point) where triage and treatment can be conducted.

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18. This was previously known as the Forward Command/Control Point is now aligned to the agreed terminology in alignment with the [Joint Doctrine: The Interoperability Framework](#). An FCP is defined as a location near to the scene where the emergency service response is managed.

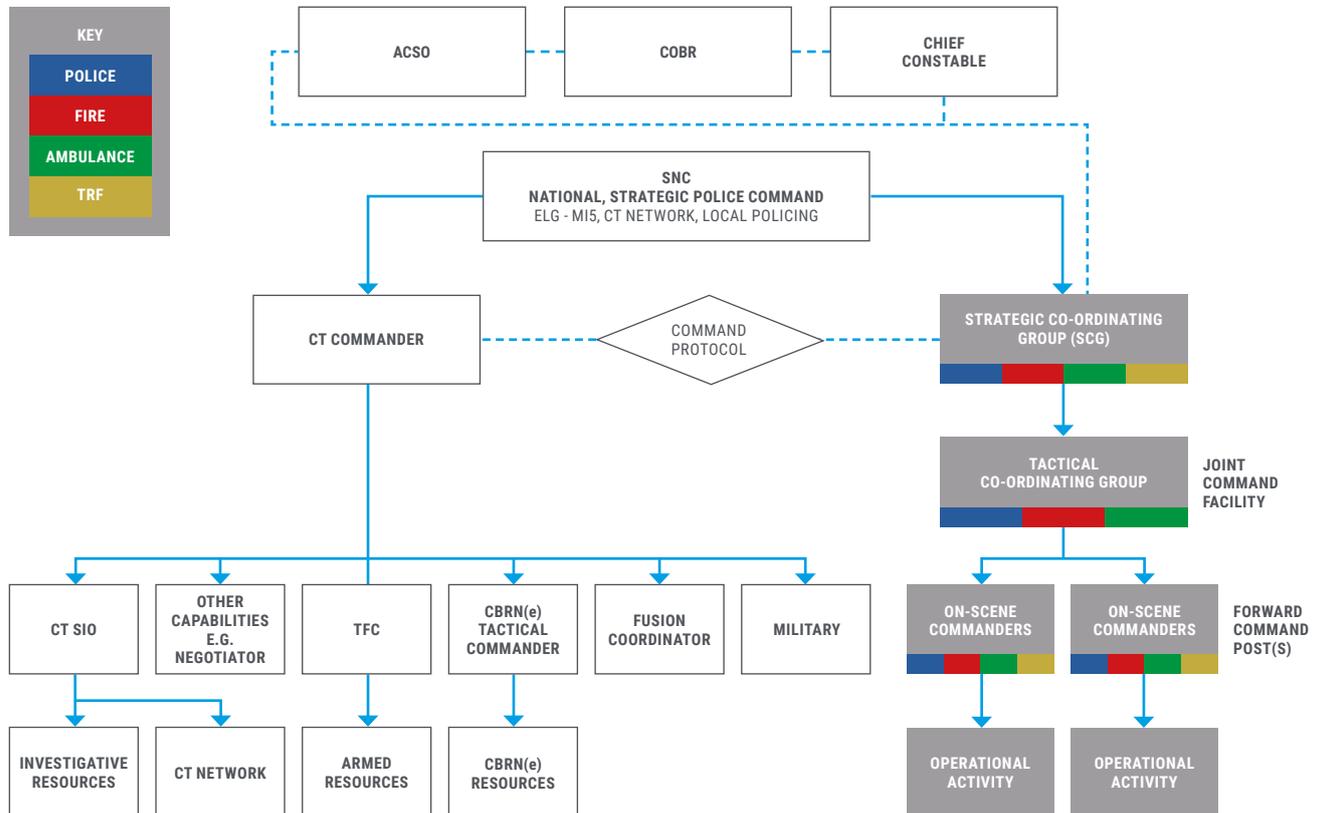
Element	Definition
Emergency Co-ordination of Scientific Advice (ECOSA)	ECOSA is the mechanism, accessed via the National CBRN Centre and co-ordinated by Public Health England, through which commanders can secure early co-ordinated scientific advice to inform decision making until such time as STAC <sup>19</sup> is established.
Casualty Collection Point (CCP)	A staging point that enables life-saving interventions to be undertaken before removal to the Casualty Clearing Station.
Casualty Clearing Station (CCS)	Entity set up at the scene of an emergency by the ambulance service in liaison with the medical incident advisor to assess, triage and treat casualties and direct their onward removal.
Ambulance Loading Point (ALP)	An area in close proximity to the Casualty Clearing Station, where ambulances can be manoeuvred and patients placed in ambulances for transfer to hospital.
Tactical Considerations	Interoperable considerations detailed within service specific and joint doctrine, developed to deliver a multi-agency co-ordinated response across a wide range of CBRN(e) incidents.
Tactical Options	Commanders have a number of interoperable options available in their tactical or deployment plans. They should take a flexible approach to the options they use, e.g. assessed against threat and risk. They should adapt and mix and match options, depending on the circumstances and resource availability. Examples of the tactical considerations and options can be found in the Annexes to this document.

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19. Science and Technical Advice Cell, a collective of specialist science and technical experts appropriate to the nature of the incident established at the Strategic Co-ordination Centre to advise the SCG on technical and scientific issues.

## 7. On-scene command and control

The command and control structure shown below sets out the command protocol arrangements for both commanding the consequence event as well as the counter terrorism pursue, investigation and intelligence element.



**8. As a matter of urgency police, FRS and ambulance on-scene commanders will be identified and mobilised by their respective control rooms. They will co-locate at the scene and will have responsibility for joint decision making to deliver a tactical plan which will ensure rapid and effective actions are implemented to save lives, minimise harm, mitigate the incident, facilitate the investigation and ensure a rapid return to normality.**

Co-location of commanders is essential and allows those commanders to perform the functions of command, control and co-ordination, face to face, at a single and easily identified location.

The Tactical Co-ordinating Group (TCG) manages those elements of the tactical response which are not on-scene, such as the wider consequence management, in line with the overarching strategy.

18. This was previously known as the Forward Command/Control Point is now aligned to the agreed terminology in alignment with the *Joint Doctrine: The Interoperability Framework*. An FCP is defined as a location near to the scene where the emergency service response is managed.

**9. Within the UK there are a number of police forces that have responsibility for the protection of specific sectors. Consideration should be given to their role within the response.**

British Transport Police (BTP), Civil Nuclear Constabulary (CNC) and Ministry of Defence Police (MDP) possess detailed knowledge of their respective sectors and operating environments. Should an attack take place within their operating environment, the non-Home Office force will take an active role in contributing to the command and control of the incident.

There may be circumstances where the non-Home Office force have primacy. In situations where they do not, they will still have a key role in contributing to the intelligence picture and facilitating the joint emergency service response by engaging in joint decision-making processes in line with existing local arrangements.

Other environments may equally present challenges requiring specific command support and specialist assets, for example:

- waterways and ports
- industrial and COMAH<sup>20</sup> sites
- collapsed structures
- underground and other confined spaces
- working at height

**10. The police On-Scene Commander, in consultation with FRS and ambulance service counterparts, is responsible for identifying a suitable FCP for specialist emergency service personnel. In making this decision account should be taken of the potential for contamination to spread and of all available information and intelligence. The location of the FCP will be reviewed continually.**

For a CBRN(e) event there will only be one FCP for command purposes at each particular scene. There may be multiple points from which specialist resources deploy into hot and warm zones (entry points). Each entry point will require access control (Inner Cordon Gateway Control (ICGC)) to ensure commanders know what assets they have deployed forward at any time.

Where there are multiple ICGCs there is a requirement to co-ordinate deployments to maintain shared situational awareness. Depending on geography and distances each ICGC may require a separate rescue team capability to recover responders from their sector of the hazard area.

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20. As defined by the 'Control of Major Accident Hazards Regulations 2015'.

FCPs must be located in the cold zone but close enough to the scene to facilitate shared situational awareness and effective command, control and co-ordination of assets.

Consideration should be given to how close the FCP is located to any public extraction, evacuation or decontamination area, as this will impact on the footprint, security of the area and effective operation of the FCP.

When selecting the FCP commanders should consider the potential deployment of decontamination structures and other specialist or discrete assets which may require a large open area.

On establishing a FCP early consideration must be given to the need for urgently relocating it if the level of risk increases significantly (for example as a result of a change in wind direction or the discovery of a secondary device).

An evacuation signal and plan for the FCP should be agreed jointly as part of contingency planning within the JDM process and disseminated to all staff at the FCP. This should be distinct from the evacuation/withdrawal signal for protected responders deployed forward, which should form part of the rescue and safety plan.

As a measure for mitigating the risk to personnel operating in hot and warm zones it is necessary that on-scene commanders jointly agree and clearly specify any 'Limit of Exploitation' (LoE). This is the furthest point to which emergency responders will operate in warm zones. Any deployments into the hot zone should be in order to carry out deliberate taskings, the parameters for that activity should be jointly agreed and briefed appropriately.

The on-scene commanders will need to ensure that there is:

- an agreement on Personal Protective Equipment (PPE) levels and deployment durations<sup>21</sup>;
- clarity and consensus over task parameters;
- a clear rationale underpinning the composition and size of team;
- an ICGC mechanism;
- a rescue plan;
- a clear understanding of the agreed boundaries of hot, warm and cold zones;
- an agreed LoE;

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21. This does not infer that all agencies will have the same PPE, the same level of protection or the same deployment duration.

- an extraction capability<sup>22</sup>;
- a mechanism to ensure that this information is effectively communicated to all deployed personnel, and
- a regular review of any joint plan utilising the JDM as a guide to support ongoing joint decision making.

#### **11. A SOR scene assessment capability may have been deployed on the authority of an initial Incident Commander prior to on-scene command being established**

Scene assessment commences from the point at which any of the emergency services become aware of the incident. It continues to build and deliver shared situational awareness through the IOR process and will be built upon by specialist multi-agency assets who are trained and equipped to operate in the warm and hot zones.

These assets may deploy under the command and with the support of the initial or subsequent command structures and will have pre-determined priorities around detection, indicative identification of the material involved and the extent of the hazards that are present.

Intelligence and evidential gathering opportunities, where they do not compromise the primary objective of preventing further loss of life, should be considered at an early stage and where practicable the Counter Terrorism Senior Investigating Officer (CT SIO) or their representative should be consulted. The importance and critical nature of intelligence gathering to inform shared situational awareness as well as to support the investigative elements must not be underestimated.

The deployment of specialist FRS and ambulance personnel into hot and warm zones is not dependent on the availability of police officers to provide an escort and a lack of an escort should not delay the deployment of those responders.

The absence of any one agency should not prevent the delivery of the IOR, nor should the absence of protected resources prevent the deployment of SOR assets. It will therefore be necessary for contingency plans and associated joint training and exercising to take full account of deployments without one or more of the three emergency services being present.

Consideration should always be given to the potential for a device to have only partially activated, presenting for example a residual explosive threat or a risk of further release of CBRN(e) material. Specialist advice from military (S015 within London) and scientific assets should be utilised to support the assessment of this risk.

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22. To include, as required, decontamination or safe undressing process.

**12. The on-scene commanders will coordinate the joint understanding of risk<sup>23</sup> to determine when and where to deploy emergency service responders**

A joint understanding of risk should be established to ensure that tasks are considered on a risk/benefit basis. The absence of a particular emergency service on-scene commander should not in itself prohibit this process from taking place but may impact on any decision to deploy personnel.

The joint understanding of risk ensures that commanders work towards a common understanding of threats, hazards and the likelihood of them being realised. This process will inform the risk mitigation measures that are available to be deployed and ensure:

- responders are afforded protection which is proportionate and appropriate to the hazards;
- deployment durations are appropriate to the task, the environment and the hazards, and
- all attending emergency responders are aware of the nature of the threat and the risks that they may face.

Deployments should always be subject to a task specific risk assessment.

All organisations that may deploy into the hot and warm zone should be briefed on the hazards and risks that have been jointly identified by commanders. For example, additional specialist responders, such as scientists from Atomic Weapons Establishment (AWE) or Defence science and technology laboratory (Dstl), Forensic Management Teams (FMT) or Explosive Ordnance Disposal (EOD) may also be working in the scene during an incident and will be represented in the command structures.

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23. As defined in the 'Joint Doctrine: The Interoperability Framework'

**13. In developing a joint understanding of risk the police, FRS and ambulance on-scene commanders will work to the methodology set out in the Joint Decision Model. They will be informed by their own service's agreed risk management processes.**

Jointly understanding risks to the emergency service personnel is considered the most efficient means for determining when and under what circumstance deployments into warm and hot zones take place. The joint understanding of risk is intended to enable on-scene commanders to work towards a common understanding of the threats, hazards and risks that may be present.

This process will also inform decisions on what control measures need to be undertaken to mitigate those risks. Although it may not be possible to negate every risk they should be managed in accordance with ALARP principles<sup>24</sup>.

It remains the responsibility of the respective on-scene commanders to determine when and how to deploy their own organisation's resources. They should also jointly consider when it is appropriate to deploy multi-agency teams and when a single agency approach will maximise operational effectiveness to achieve joint aims.

On-scene commanders must ensure that personnel under their command are comprehensively briefed as to the risks, threats and potential hazards, based both on intelligence and where there is an intelligence gap, on the planning assumptions for an event of this nature. It is preferable, wherever possible, that briefings of personnel are conducted jointly with input from all three services as appropriate to the emerging situation, although for expediency it may be delivered by one commander or briefing officer on behalf of those services present.

**14. Each emergency service will maintain individual policy logs at the FCP to record tactical considerations and decisions.**

This principle underpins existing standard operating procedures for responding to critical and major incidents. It is necessary that decision-makers from each service record the rationale for their choice of tactics as well as the information and intelligence on which those decisions are based. Records of decisions can be used as part of the command support briefing function to assist future joint decision-making and ensure clarity of understanding of a continually developing and potentially complex situation.

At a local level emergency services will have their own standardised approach for recording incident command decisions; these may differ between each organisation.

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24. As Low As is Reasonably Practicable (ALARP) is a key part of health and safety doctrine and is described as one of the general duties set out in the Health and Safety at Work etc. Act 1974

**15. In responding to a CBRN(e) event police officers will initially focus on creating an environment which allows FRS and ambulance service personnel to rescue, triage, treat and if necessary decontaminate casualties using appropriate methods.**

As part of the facilitative process police will prevent further casualties, for example through the use of cordons and tactical communications to keep the public a safe distance from working and hazard areas.

The provision of CBRN(e) protected officers to escort ambulance and/or FRS personnel into hot and warm zones cannot be guaranteed in the early stages of an incident. Resource availability will inform the ongoing joint assessment of risk.

While resources are likely to remain limited, early consideration should be given to standing up mutual aid via the TCG and SCG to ease resource constraints, both regionally and wider through established police, FRS and ambulance mobilisation mechanisms (See JOP 2 on page 9).

**16. Police officers and ambulance personnel who are not in possession of CBRN(e) PPE appropriate to the hazard should not be deployed into warm or hot zones. Subject to a risk assessment, responders with appropriate PPE (for example Firefighters in structural firefighting PPE with breathing apparatus) may be deployed to conduct snatch rescue as part of immediate life-saving activity.**

As the IOR transitions to the SOR additional trained and protected resources will become available to undertake deployments into and around the hot and warm zones. Initial incident commanders will be supported by assets with specialist CBRN(e) knowledge (such as CBRN commanders, National Inter-Agency Liaison Officers (NILOs), CBRN Tactical Advisors, DIM Advisors).

Whilst it is anticipated that the bulk of lifesaving activity will have been initiated and delivered through the IOR it is reasonably likely that there will be a continued and urgent requirement to deploy protected resources to continue rescue and scene assessment, as well as to facilitate and support delivery of decontamination and clinical intervention.

Commanders should consider the capabilities and limitations of all agencies when determining how these various specialist functions can be most effectively delivered and should be cognisant of variations in types of PPE and levels of protection that may be available to each agency. Commanders should consider scientific advice to underpin decisions on levels of PPE.

**17. The Police On-Scene Commander should consider creating a sterile area to preserve the crime scene, pending further forensic exploitation and intelligence gathering.**

Commanders must be cognisant of as yet undiscovered secondary devices within the scene, its immediate vicinity and the RVP.

Consideration should be given to whether there may be continuing scene assessment and hazard monitoring requirements beyond life-saving activity as part of the ongoing emergency services and wider community safety plan. On completion of life saving actions and confirmation of hazard any further deployments into the hot zone must be carefully planned and deliberately tasked against specific objectives.

At this stage scene primacy should also be subject of review against the strategic priorities in conjunction with the CBRN Strategic Command, CT Commander, Counter Terrorism Senior Investigating Officer (CTSIO) or their representative, whether or not they are yet represented on-scene.

FRS and ambulance service specialist support and command elements will usually continue to be required on-scene and at the TCG to support investigative and recovery activity, including the recovery of fatalities under established CBRN Disaster Victim Identification (DVI) agreements and the continued provision of safe systems of work.

There is the potential that CT Commanders and CTSIO's working from a Counter Terrorism Police Operations Room (CTPOR) will require the support of a CBRN Tactical Commander to support any investigation, intelligence gathering and manhunt activities.

Should this position be reached there will be a requirement for clear command protocols and partnership arrangements within any consequence management command structure.

It must also be recognised that, as time progresses, there may be a requirement for information gathering and sharing on a multi-agency basis to take place at the CTPOR, which can be facilitated by the attendance of FRS and ambulance service NILOs<sup>25</sup> or similar role.

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25. Provision has been made in counter terrorism guidance to facilitate such multi agency working at CTPOR.

## OFFICIAL

The personnel attending the CTPOR from FRS and ambulance service will act in an advisory capacity to the Police CT Commander. This does not remove the necessity for FRS and ambulance service commanders to attend both the scene and the location of the TCG.

The core functions of this role include:

- bridging any intelligence and information sharing gaps between the partner agencies involved;
- improving co-operation and understanding amongst agencies on matters of organisational capacity, capability and command; and
- reducing risk to the public, operational personnel and the environment.

Personnel must ideally possess the required level of security clearance for this environment. This will normally be Security Checked (SC) level.

## CASUALTY MANAGEMENT

The following section provides operational guidance for the management of casualties by specialist emergency service personnel equipped and trained in the use of appropriate CBRN(e) PPE.

**18. The ambulance service has lead responsibility for the management of casualties during a CBRN(e) incident. However, decisions on whether to deploy staff into incident hot and warm zones will be made as part of a joint understanding of risk process conducted by the police, FRS and ambulance on-scene commanders.**

Article 2 of the European Convention on Human Rights (ECHR – 1950) as enshrined in the Human Rights Act 1998 protects every person's 'Right to Life'. A CBRN(e) event could generate a significant number of casualties with life-threatening symptoms that require immediate medical intervention to prevent death.

Early intervention based on an assessment of the risks and benefits is therefore required to maximise survival rates. In a CBRN(e) event it is critical that this process begins with the IOR and continues until such time as all saveable life has been saved.

In support of this process and following a joint assessment of risk the ambulance service On-Scene Commander may determine that casualties can be removed from the immediate scene of contamination (or once the contamination hazard has otherwise been mitigated or dissipated) to a casualty collection point (CCP). This decision will be based on the availability of resources both able to operate in CBRN(e) PPE in the warm zone and able to work without CBRN(e) PPE in the cold zone.

**19. The focus of deployments into warm and hot zones is primarily to administer clinical care. In practical terms this is an assessment of a casualty, rapid intervention such as nerve agent countermeasures and extrication to the CCP.**

Where ambulance personnel are present with other emergency service personnel in a zone, they will direct and co-ordinate the casualty management process, including the use of non-ambulance service emergency responders where available to deliver life-saving care. Extrication of live casualties to the warm zone is the priority that can be delivered by any appropriately protected responder.

As the response builds this activity will be extended as CBRN(e) protected clinical care resources become available in the form of Hazardous Area Response Teams<sup>26</sup> (HART) to deliver and support care in the warm and hot zones dependent upon the nature of the hazard.

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26. Special Operations Response Team in the Scottish Ambulance Service.

Given the hazardous nature of CBRN(e) incidents it is necessary that bystanders are directed to leave the scene by the safest and quickest route possible. Where bystanders refuse to leave and are actively treating casualties (for example some may be off-duty staff or trained first aiders) advice should be given on treatment, and dressings provided.

**20. In order that treatment priorities are established and casualties are treated in the most appropriate manner the National Ambulance Resilience Unit (NARU) Toxic Triage Process will be used by specialist clinicians from the ambulance service. Following decontamination secondary triage will be undertaken at the CCS.**

Casualties that have been assessed will be identified through coloured labels so that repeated assessments do not occur. Fatalities will be appropriately identified to avoid repeated checking of their state. Only ambulance service personnel will categorise (triage) casualties and only a qualified ambulance service professional can recognise life extinct.

Once a casualty has been assessed and has received initial treatment they should be removed for further treatment at the earliest possible opportunity. Retrieval of patients to either a CCP or to a CCS will commence on the instruction of the Ambulance On-Scene Commander; a decision taken as part of an on-going joint assessment of risk.

**21. At the scene the clinical need of those affected should be balanced against any radiological hazard present. Priority 1 patients with life threatening injuries should not have their treatment and transfer delayed for decontamination.**

A CCP should be established within a warm zone. The location will need to be jointly agreed, however it may be some distance from the more heavily resourced CCS and associated ambulance loading point (ALP).

The decontamination process starts by removing the casualty to an area of relative safety within the inner cordon and by the removal of their outer clothing at the earliest opportunity. The casualty will subsequently be assessed to determine if further decontamination is required and the best method (wet/dry/both).

**22. Decontamination can take several forms: improvised, interim, mass and clinical decontamination. The term 'mass decontamination' refers to the capability of the method, and not the actual number of people to whom it is applied.**

Decontaminated people may be cold (this may be exacerbated if water-based decontamination has taken place) and in need of drying, shelter and clean clothing. These issues should be considered in advance and the location and practice of decontamination should be such as to make sure that appropriate aftercare provisions can be made as soon as possible (re-robe packs may be available via FRS or ambulance service).

In certain circumstances the emergency services might decide that the immediate transfer of contaminated casualties to an offsite facility is appropriate. This would only take place in extremis, following appropriate joint hazard and risk assessments and in consultation with the relevant hospital and Local Authority.

An incident involving casualties requiring clinical decontamination will require the deployment of HART resources and other specialist ambulance service resources. Deployment of these resources will normally be to an RVP until the initial area has been made safe allowing for the decontamination area to be established.

An incident involving a contaminant may not have initially caused injury to people, however there is a possibility that those responding to the incident may be injured or taken ill as a result of the incident.

## FIRE AND RESCUE SERVICE CONSIDERATIONS

These JOPs recognise the unique nature of a CBRN(e) event and are intended to complement existing protocols within the emergency services. Specifically, this section addresses activity that may be undertaken by FRS resources in support of the strategic priorities of preserving and protecting life.

### **23. During the IOR phase only the FRS are likely to have any capability to enter the warm and hot zones, subject to an assessment of risk and in order to save life.**

In the event that the FRS is on-scene prior to the police dynamic risk assessments will continue to determine the initial cordon placement or the delivery of immediate life-saving activities.

In common with police, ambulance and other responding agencies only those FRS personnel who are trained and equipped with appropriate PPE can be deployed into the warm and hot zones.

The FRS resource requirement to carry out immediate lifesaving actions could be significant so consideration should be given to ensuring adequate resources are requested at the earliest opportunity.

FRS assets will support the IOR through the provision of improvised or interim decontamination (dry and/or wet) and disrobe packs.

As the transition to SOR takes place FRS personnel will continue to support the incident through the provision of advice, expertise and specialist capabilities associated with:

- entry control and safety management around the inner cordon, including decontamination of impermeable PPE;
- detection, identification and monitoring of hazards;
- support to the ambulance service through the provision of decontamination for members of the public and making available re-robe packs;
- search and rescue;
- accessing confined and challenging environments (for example collapsed structures which cannot be safely accessed by other agencies), and
- protecting the environment from the effects of hazardous materials.

**24. Control of operations involving emergency services using breathing apparatus/Powered Respirator Protective Suits (PRPS) should routinely be co-ordinated by the FRS, acknowledging their expertise and established safety systems in this area<sup>27</sup>.**

Multi-agency operations involving Respiratory Protective Equipment (RPE), including but not limited to: breathing apparatus; PRPS and other bespoke personal protective equipment ensembles (CR1), should form part of a safe system of work which is jointly agreed by each agency committing staff into the inner cordon.

The safe system of work will accommodate the existing safety critical procedures of each agency recognising the individual agencies roles and responsibilities.

Minimum requirements will include co-located entry control points and a joint rescue plan utilising an agreed safety team. Each agency will reserve and retain its legal duty of care toward its employees.

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27. It is accepted that some specialist teams may have their own RPE control protocols.

## ANNEX A – GLOSSARY OF TERMS

ACSO	Assistant Commissioner Specialist Operations
ALARP	As Low As is Reasonably Practicable
ALP	Ambulance Loading Point
AWE	Atomic Weapons Establishment
BTP	British Transport Police
CBRN(e)	Chemical, Biological, Radiological, Nuclear (explosive)
CCP	Casualty Collection Point
CCS	Casualty Clearing Station
CNC	Civil Nuclear Constabulary
COBR	Cabinet Office Briefing Room
COMAH	Control of Major Accident Hazards
CSI	Crime Scene Investigator
CT	Counter Terrorism
CTPOR	Counter Terrorism Police Operations Room
CTSIO	Counter Terrorism Senior Investigating Officer
CTSFO	Counter Terrorism Specialist Firearms Officer
DBB	Decontamination of Body Bags
DIM	Detection, Identification and Monitoring
Dstl	Defence Science and Technology Laboratory
DVI	Disaster Victim Identification
ECHR	European Convention on Human Rights
ECOSA	Emergency Co-ordination of Scientific Advice
ELG	Executive Liaison Group
EOD	Explosive Ordnance Disposal
FCP	Forward Command Post
FMT	Forensic Management Team
FRS	Fire and Rescue Service
GDS	Government Decontamination Service
HART	Hazardous Area Response Team
ICGC	Inner Cordon Gateway Control
IOR	Initial Operational Response
IRU	Incident Response Unit
JCF	Joint Command Facility
JDM	Joint Decision Model
JESIP	Joint Emergency Services Interoperability Programme
JOPs	Joint Operating Principles
JRLO	Joint Regional Liaison Officer
LRF	Local Resilience Forum
LoE	Limits of Exploitation
MACP	Military Aid to the Civil Power

MASAT	Multi-Agency Specialist Assessment Team
MDP	Ministry of Defence Police
MERIT	Medical Emergency Response Incident Team
MRDU	Mobile Radiation Detection Unit
NAIR	National Arrangements for Incidents involving Radioactivity
NARU	National Ambulance Resilience Unit
NCEC	National Chemical Emergency Centre
NILO	National Inter-Agency Liaison Officer
NNL	National Network of Laboratories
OSCT	Office for Security and Counter Terrorism
PPE	Personal Protective Equipment
PRPS	Powered Respirator Protective Suits
PSU	Police Support Unit
RPA	Radiation Protection Advisor
RPE	Respiratory Protective Equipment
RPS	Radiation Protection Supervisor
RVP	Rendezvous Point
SAGE	Strategic Advisory Group for Emergencies
SCG	Strategic Co-ordinating Group
SecCo	Security Co-ordinator
SIM	Senior Investigation Manager
SIO	Senior Investigation Officer
SNC	Senior National Coordinator
SO15	The Metropolitan Police Counter Terrorism Command
SOR	Specialist Operational Response
SORT	Special Operations Response Team
STAC	Science and Technical Advice Cell
SUP	Safe Undressing Procedure
TCG	Tactical Co-ordinating Group
TFC	Tactical Firearms Commander
TRF	Technical Response Force
UKBA	United Kingdom Border Agency
USAR	Urban Search and Rescue

## ANNEX B - STRATEGIC CONSIDERATIONS

### WORKING STRATEGY

PRESERVE & PROTECT LIFE

MITIGATE & MINIMISE IMPACT

INFORM THE PUBLIC  
MAINTAIN PUBLIC CONFIDENCE

GATHER INFORMATION  
& INTELLIGENCE

PREVENT & DETECT CRIME

ASSIST RAPID RETURN  
TO NORMALITY

### STRATEGIC COMMAND CONSIDERATIONS

INFORMATION /  
INTELLIGENCE

THREAT /  
HAZARD ASSESSMENT

DEVELOPMENT  
OF A STRATEGY

SCALE & SIZE OF  
RESPONSE

RESOURCES CAPABILITY  
& CAPACITY

COMMAND & CONTROL

COMMAND PROTOCOLS

AGENCY ROLES

GOVERNANCE

COMMUNICATIONS  
STRATEGY

RECOVERY

# ANNEX C - TACTICAL CONSIDERATIONS

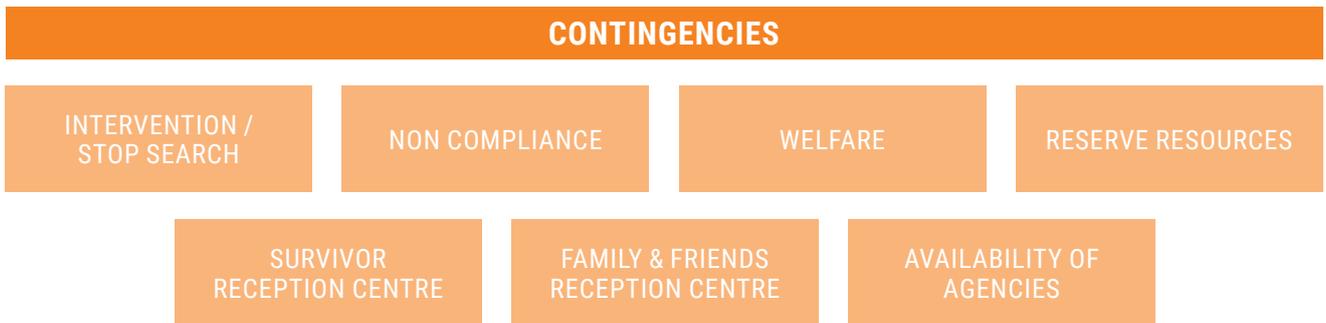
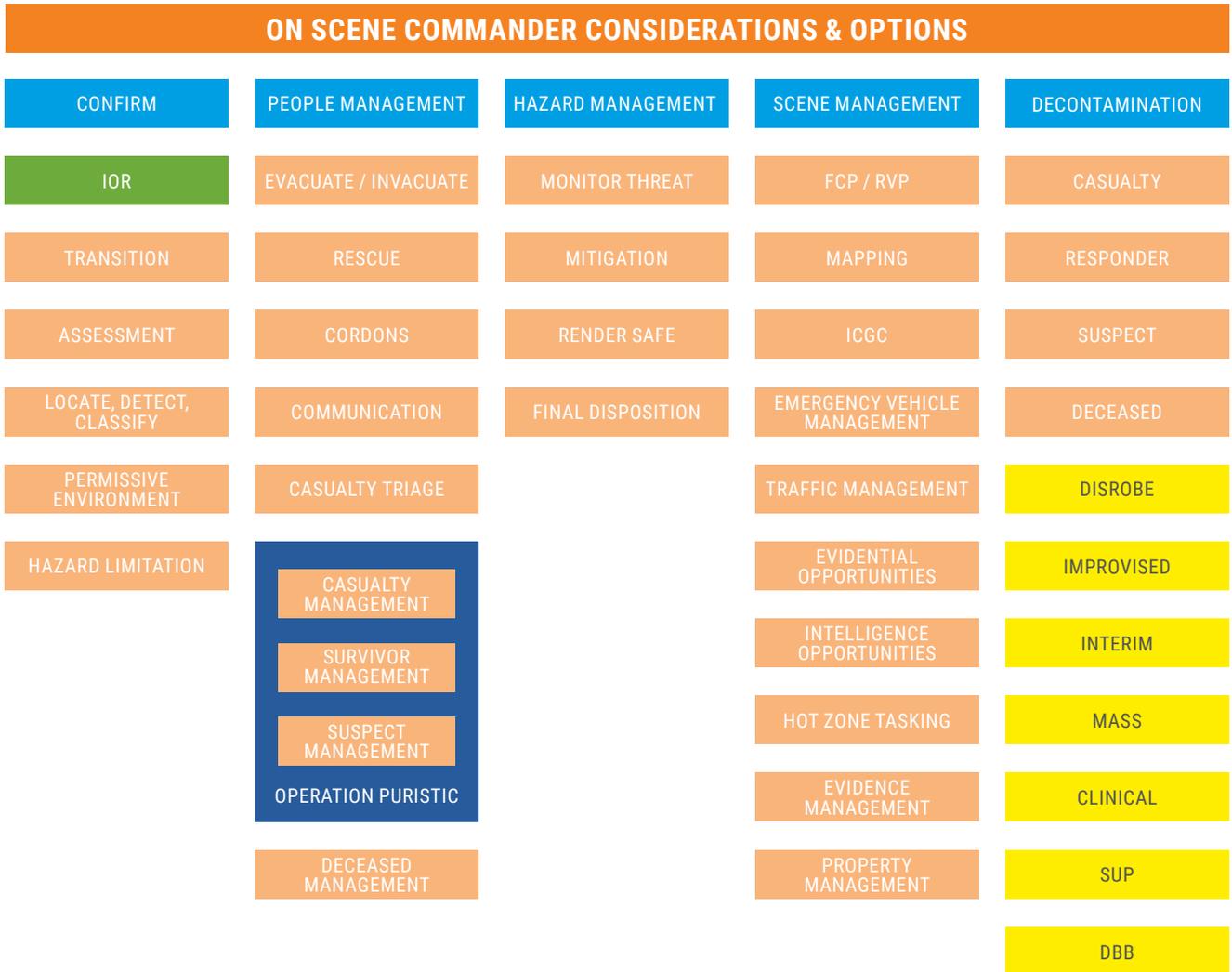


## CONTINGENCIES



## CBRN MASS CASUALTY RESPONSE

# ANNEX D - ON-SCENE COMMANDER CONSIDERATIONS AND OPTIONS



**CBRN MASS CASUALTY RESPONSE**

# ANNEX E - RESOURCES

KEY: POLICE FIRE AMBULANCE MILITARY

CONVENTIONAL		CBRN			SPECIALIST SUPPORT		
PSU	FRONT LINE APPLIANCE	DIM	IRU	MASS CASUALTY VEHICLE	ECOSA / STAC / SAGE	NCEC	N CBRN OPERATIONS CENTRE
ARMED OFFICERS	GENERAL HAZARDS COMMANDERS	PROTECTED RESPONDERS	MASS DECON DISROBE	INCIDENT SUPPORT VEHICLES	AWE	RPA	CT NETWORK
POLICE DOG HANDLERS	HAZ MAT	RPS	MASS DECON RE-ROBE	MEDICAL COUNTER-MEASURES	DSTL	NAIR / RADSAFE	FUSION
SEARCH OFFICERS	MET WEATHER PREDICTION	TACTICAL ADVISORS	DBB	HART PLUS SORT SCOTLAND	LRF	MRDU (UKBA)	NEGOTIATOR
COMMUNITY MEDIATOR	USAR	MASAT	COMMUNICATION TRAILER CBRN	SORT CLINICAL DECON	GDS	ENVIRONMENT AGENCY	SECCO
INTELLIGENCE CELL	COMMAND UNIT	SUPPORT OFFICER LOGISTICS	CBRN BARRIERS		NNL	ENHANCED LOGISTICAL SUPPORT	
SIM	UNPROTECTED RESPONDERS	LOGISTICS	CBRN SEARCH		CAT 2 RESPONDERS	PUBLIC HEALTH	
SIO	BARRIERS CONVENTIONAL				FORENSIC RESPONSE	MILITARY SPECIALISTS	COUNTER TERRORISM SPECIALISTS
LEGAL	LIGHTING				CSI	JRLO	CTSIO
DVI	AIR SUPPORT / DRONE				CBRN CSI	MACP	CTSFO
	MERIT				CBRN FORENSIC SCENE MANAGER	EOD	
					CT NETWORK - FMT	TRF	



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