

International
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International Forensic
Centre of Excellence

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Disaster Victim Identification

- **Mission Planning (DV11)**
- **Site Assessments (DV12)**
- **Site Investigation and Recovery (DV13)**
- **Mortuary Operation and Identification (DV14)**
- **Capacity Building and Training (CA12)**
- **Advisory and Consultancy Services (GE16)**

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Accidents, natural disasters and terrorist incidents involving large numbers of fatalities occur on a worldwide basis. They are defined as incidents where more deaths occur than can be handled by normal local resources. Mass fatalities are commonly characterised by multiple casualties and by their complexity. They can leave many people missing and many survivors without certain knowledge of their loved ones' fate and whereabouts. Recovery and identification of the dead is essential for survivors and families to comprehend events, and for them to move on with their lives. Investigation of incidents is essential to prevent re-occurrence and for legal reasons.

Inforce experts have extensive experience in site analysis, body recovery, and operating temporary mortuaries. We can assist governments, companies, organisations and NGOs with planning and executing mass fatality procedures. The following brochures explain how Inforce can assist in each of the key operational phases:

- Mission Planning (DV11)
- Site Assessments (DV12)
- Site Investigation and Recovery (DV13)
- Mortuary Operation and Victim Identification (DV14)

Mass fatalities are complex and chaotic, global in reach and increasingly common. Effective recovery and identification of casualties requires multi-disciplinary teams and efficient management. It is desirable to build national and regional forensic capacities with the skills and understanding to deal with these incidents in the future. Inforce is committed to providing training for mass fatality response in the range of skills involved.

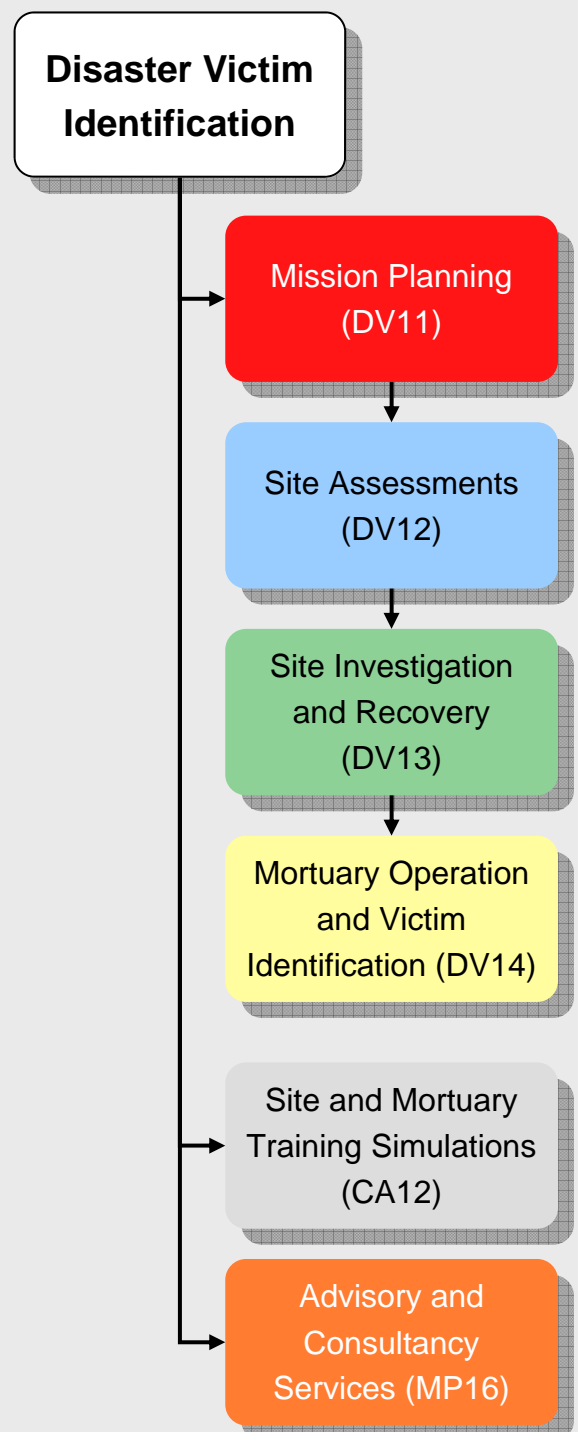
Capacity building for mass fatality response is achieved via a program of academic study, practical workshops and exercises using large scale simulations of crash scenes and other fatality sites. This includes field operations and setting up and working within emergency mortuary facilities. For details see:

- Capacity Building: DVI (CA12)

In some circumstances, governments, organisations and companies may need advice rather than actual operational support. Inforce can offer such advice on any issue related to mass fatalities and DVI. Further information is outlined in:

- Advisory and Consultancy Services (GE16)

Please do not hesitate to contact us



DATA GATHERING

Mass fatalities often require a rapid response, and pre-planning is essential for such operations, which can overwhelm unprepared local organisation.

Planning and preparation concerning such areas as vehicle access routes, clean water sources, electricity services, mortuary locations and contact details for liaison between various emergency response and recovery organisations are vital for efficient investigations on the ground.

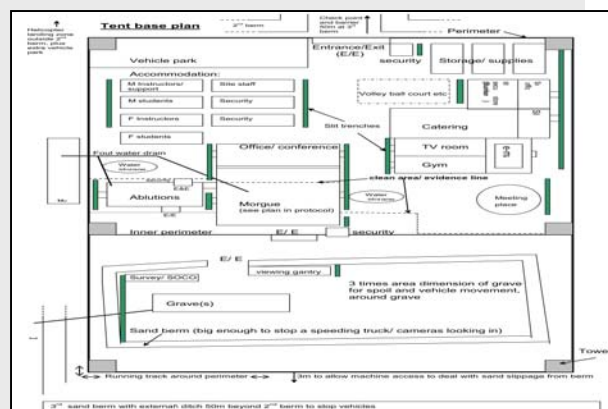


Inforce can provide advice and guidance on what to consider when planning for the eventuality of a mass disaster or fatality to allow successful outcomes in both site and mortuary recovery operations.

DATA ANALYSIS

To allow a rapid response, and allow organisations to train and operate to the same procedures, the operational pre-planning data gathered should be organised into planning guides and procedures.

These documents, which should consider plans for specific locations, regions and public areas should be regularly updated to allow quick and efficient responses.



Inforce has developed prepared protocols and SOPs for both site recovery and mortuary analysis operations which provide both summarised and detailed guidance to allow an effective process to put in place during mass fatality and disaster investigations.

OPERATIONS PLANNING

Successful management and co-ordination of such complex disaster operations begins with understanding how the roles of organisations involved, and the elements of the investigation process, fit together.

Each stage of the investigation is planned to achieve maximum benefit within the framework of an agreed operational procedure including:

- Management structure
- Organisational responsibility
- Logistics
- Team size and composition



Investment in detailed planning at an early stage maximises efficiency whilst keeping expenditure within budget. Inforce has extensive experience in planning recovery operations to deliver effective investigation within available time and resources.

AREA LOCATION

The locations of many mass fatalities seem obvious because of their dramatic nature. However, determining the actual extent of these scenes can be problematical. The area involved in an earthquake or remote plane crash may require specialists to rapidly map it's exact extent to allow emergency services to locate and recover survivors.



It is imperative that limits of interest are clearly defined before investigation for recovering evidence and remains begins so that nothing is overlooked. Methods to define such an area of interest include:

- Aerial imagery
- GIS mapping
- Eye witness/survivor statements

Once areas are defined, the task of locating specific sites can begin.

SITE LOCATION

A defined area of interest often contain numerous sites linked to a disaster event. Plane wreckage may be in several separate locations. After emergency services have released sites after survivor search and rescue, each site will need to be investigated and defined by application of several different methods such as:



- Remote sensing
- Surface searches
- Assessment surveys

Definition of the all associated scenes is essential for planning an efficient and effective recovery phase. This will ensure that sites are investigated in a logical sequence taking account of practical, legal and safety factors.

SITE CONFIRMATION

During every investigation, the team will come across a landscape of chaotic debris and features such as craters or collapse structures. These will all have to be assessed to see if they relate to a disaster or were present beforehand and can be discounted. Such thorough assessment allows the recovery phase to be reliably planned.



The most commonly used method for demonstrating that a site is part of a mass fatality is analysis of surface debris. Often survey of a limited area of debris can confirm the presence of multiple human remains. At this stage material can be collected and recorded, beginning recovery and aiding assessment and planning for a main recovery phase.

MATERIAL RECOVERY

When undertaking a recovery from a mass fatality site, teams will always encounter a variety of material. All material uncovered is used to reconstruct the sequence of events that has taken place.

Some material comes in the form of physical objects, such as personal documents or watches. Other information is based on observations such as wreckage distribution or direction of explosions. It is critical that all material is documented in great detail through photography, description, planning and survey. Careful recovery, storage, and transportation of material to appropriate facilities is essential.



BODY RECOVERY

Recovery of bodies from a mass fatality scene is an important task combining forensic expertise with a compassionate approach, affording dignity to the deceased and their families.

Bereaved communities have the right to deal with the remains of their loved ones according to their customs and religious traditions. Each individual should be identified and re-united with their families to help the surviving relatives begin the process of closure and to facilitate probate.

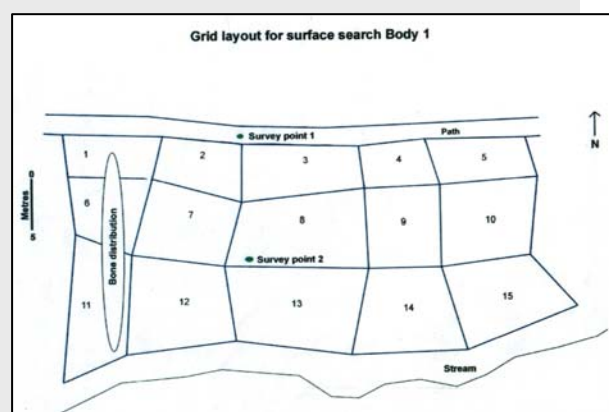


Only the highest standards of practice amongst experts in the field will enable the identification team to gather as much information about each individual as possible.

SITE ANALYSIS

Sites of mass fatalities and the surrounding landscape may reveal hundreds or even thousands of items of material that helps in the reconstruction of the sequence of events.

This vast amount of data is carefully analysed to yield maximum information and secure accurate identifications. Inforce teams have considerable experience in such analysis and in presenting it in a detailed, coherent form. These reports are essential for the analysis of human remains within the mortuary and for the overall project.



Without such analysis and interpretation, it can be difficult for relevant authorities, families and the general public to understand the detail and nature of the incident.

MORTUARY

In the mortuary or laboratory, the material that was collected in the field can be processed, analysed and stored. The specialists involved will depend on the nature and amount of the material and the numbers and condition of the individuals recovered.

Inforce can establish a temporary mortuary near a mass fatality site if necessary, or a permanent mortuary can be established for longer term operations. Information gathered from the exhumation and derived from the post-mortem analysis is used to:

- estimate the minimum number of individuals recovered
- determine the biological profile of each individual
- identify individuals
- assess the cause and manner of death



POST-MORTEM

Human remains may be recovered in varying states of articulation or fragmentation, requiring different methods of analysis and storage.

The main aim of a post-mortem examination is to identify the individuals and determine cause of death. Criteria such as sex, age, and height together with unique identifying characteristics (e.g. tattoos, previous injuries, dental work etc.) and details of clothing and personal effects are recorded. This is achieved through a series of systematic analyses using radiography, pathology, odontology and anthropology. Samples may be taken for DNA and other bio-molecular or biochemical analyses.

A further aim is to gather evidence of the cause of a disaster for investigations and enquiries.



IDENTIFICATION

The means by which an individual can be identified is limited by the information that can be obtained about them from their families and communities and how much can be learned from their remains.

A comparison of dental radiographs to an individual's teeth, fingerprints, or a comparison of DNA from a living relative to that of the deceased can result in a positive identification. When only general information exists, it may not be possible to positively identify the deceased. Cooperation between investigators, ante-mortem data collectors and mortuary staff is vital for a successful identification process. This allows a death certificate to be issued to assist with such as closure and probate.



TRAINING

Inforce can provide theoretical, classroom and practical training in all areas of the process of missing persons investigation:

Mission Planning: including logistics, health and safety, data sourcing and management.

Field Operations: training in the process of search and location, site analysis and the recovery and analysis of all material.

Mortuary and Identification Operations: Planning and commissioning temporary mortuaries for the examination of mass fatalities, control and analysis of human remains and other materials, the identification of the dead.

Investigative and Legal: techniques of evidence identification and collection, interviewing, and the law pertaining to the missing.



SIMULATIONS

Inforce has a successful track record of using simulations for capacity building. These are a convenient and safe way to train personnel in the processes of mass grave assessment, recovery, analysis and reporting. They are a training tool, with no associated legal, social or moral issues. Trainees' performance can be assessed. Any mistakes made do not effect identification or court cases, and they are cost effective alternative to training on real graves. Simulations can be designed for any requirement or experience level. They can be undertaken in any suitable environment and can be controlled for safety, speed, complexity and size.



Inforce can run simulations for a variety of needs including field operations, mortuary and identification operations and expert witness skills.

MENTORING

Inforce can co-ordinate, monitor and mentor scientific teams and processes to ensure that new skills are applied appropriately whilst assuring quality. This can be provided as part of our training programme or as a separate service. Mentoring ensures an efficient practical application of newly acquired skills on real missions, permitting a continuation of education and development of expertise.

Mentoring can be arranged on a long or short term basis providing continuing support for teams as they develop and grow in confidence and effectiveness.

Team members may further develop knowledge and skills by undertaking qualifications in forensic science, training and management at UK universities thus creating the capacity to form a local specialist forensic capability.



ASSESSMENT

Inforce offers advisory and consultancy services to guide clients in the areas of:

- Human rights violations
- Missing persons investigations
- Victim identification
- Related forensic science
- Training

Assessing the needs, capabilities and requirements of a client is the first step. Disasters, finding and identifying the missing, investigating crimes or human rights violations often require rapid solutions or can become imperative following policy and regime change.

Inforce can advise and assess the impact of an event or potential investigation in areas such as policy, inter-organisational coordination, international law, media liaison, resources, finance, and management.



PLANNING

Following assessment of capabilities and determination of requirements, Inforce can advise on the measures necessary to achieve successful investigative outcomes.

Operations involving site investigation and body recovery, victim and perpetrator data collection and identification are complex processes necessitating a detailed operational and logistics plan. Inforce offers advice throughout all stages of the planning processes which can include the following areas:

Desk top analysis; health and safety; risk assessment; security; terms of reference; logistics; transport and engineering; technical support; communications; finance; organisational structure; medical support; personnel; investigation management; scene management; facility management; liaison and coordination.



OPERATIONS

Following the detailed planning process, Inforce can advise on operational matters for both field and mortuary operations.

Operations of this type may vary in scale and intensive in terms of resources, staffing, finance and time.

Inforce have extensive experience in complex operations which may include: Deployment, remote imaging; survey; search; location; site confirmation; recovery of evidence and remains; ante mortem and post mortem data collection; crime scene analysis; chain of custody; logistics; transport; mortuary commissioning and analysis of evidence and remains; liaison with scientific facilities; sampling; family and community liaison; death certification; repatriation of remains; interviewing; reporting and presentation.



INFORCE'S HISTORY

Almost 203 million citizens were unlawfully killed by governments in the twentieth century; a number that is, unfortunately, likely to be matched in the first century of the new millennium.

The Inforce Foundation was founded in 2001, born out of the collective experience of a group of forensic specialists active in the investigation of crimes against humanity, war crimes and genocide since the mid 1990s.

Between us, Inforce personnel have worked with a multiplicity of national and international organisations (government and NGOs) initiating and undertaking such work.

Inforce has operated in a variety of countries, such as Iraq, Cyprus, or DR Congo locating and investigating crime scenes, identifying the deceased and educating and training local forensic teams to carry on this vital role.

WHO ARE WE?

The Inforce Foundation is a movement of scientists, lawyers and others committed to upholding human rights and creating a future for all that is free from fear, oppression and murder. We are fortunate in having an impressive and diverse range of supporters, patrons and advisors.

MISSION STATEMENT

To provide a centre of expertise for the location, recovery and identification of victims of atrocities on a world wide basis.

To enable legitimate legal authorities to proceed with the prosecution of alleged perpetrators.

To satisfy the humanitarian need of families and communities to bury their dead.

To provide education; for practitioners and as a means of empowering survivor groups.



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