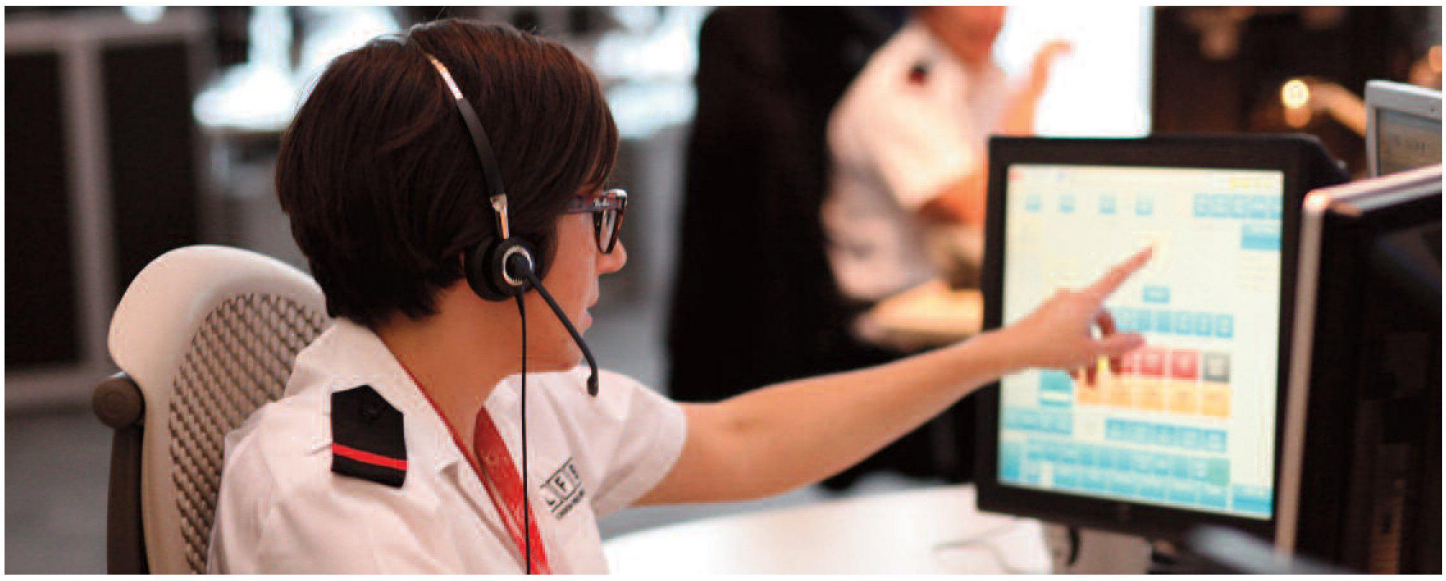
OPERATIONAL NEWS

LFB

The newsletter for all London Fire Brigade operational staff

Issue 27 **June 2014**



Messages from incidents

Observations recorded on the Incident Monitoring Process Database (IMPD) by monitoring officers, the Operations Review Team (ORT) and Brigade Control staff suggest concerns over both the quality and correct structure of messages being sent from incidents. Two particular areas of concern are:

- Incidents where messages are delayed, omitted or sent in a format which fails to comply with guidance and policy.
- Incidents involving fatalities and/or where a person has been injured and a coded stop has been sent.

Messages from fires and other incidents are to be sent to Brigade Control as soon as the incident commander (IC) has assessed the situation. In all instances, messages should be clear, concise and reflect the current incident situation and be delivered at dictation speed.

An initial informative message should be sent within 20 minutes of arrival at an incident, or as soon as possible after the first assistance message has been sent. Further timely messages must be sent to keep Brigade Control and remote monitoring officers updated with the current incident status. Policy 518 (Messages from Incidents) states that any situation where there has been a fatality or a serious fire-related injury, including smoke inhalation, a fully worded stop message must be sent. This will enable Brigade Control to inform and/or despatch the relevant resources, such as RMC and a fire investigation unit (FIU).

The FIU core role is not only to discover the cause of ignition, but also to gather information on all fire related injuries for statistical analysis. The FIU will also greatly assist ICs should there be an official enquiry into a fatality or the cause of an injury, including the attendance at a Coroner's court.

It is possible that an IC will receive information of a fatality or injured person having already sent a coded stop. In this situation an amended stop should be sent to CMC stating all details in the form of a fully worded stop as per Policy 518.

INSIDE

Operational News reflects important operational and health and safety issues for staff. Topics are identified from our robust audit and review processes which include performance reviews of command and operations, supplemented with articles on new equipment, procedures that reduce risk and address health and safety concerns. Where appropriate training packages on page 8 provide further information on the topics covered.

Control structures

A robust command and control structure is essential for ensuring effective incident management. It affords an incident commander (IC) a format for the delegation of roles and tasks, the implementation of safe systems of work and effective communications, whilst establishing a geographical area to assist with safety and resource planning.

The Fire and Rescue Service National Incident Command System (NICS) manual describes the core components of successful incident management by offering the IC a variety of options to determine, develop and implement an effective command, control and communications structure over any incident.

Regardless of the size of an incident, or how simple and straight forward it may first appear, timely consideration must be given to identifying and implementing a resilient structure. This not only affords the initial IC a system to manage an incident, but it ensures a strong foundation for future ICs to build upon at a developing incident.

At all incidents, early consideration must be given to controlling the physical area affected, this could be quickly achieved by despatching a crew member to the rear of a building to assist with early information gathering and situational awareness.

As soon as practicable the IC should formally sectorise, giving titles to best describe the area of operations i.e. sectors 1,2,3,4 or 'Fire Sector'. The IC should nominate and brief sector commanders for each sector, further strengthening them with the placement of safety officers to assist with the identification of hazards, assessment of risks and the implementation of control measures.

The IC may need to request additional resources to meet the demands of a developing incident. The initial command and control structure will need further development in order to manage the increase of resources. An RVP, a direction of approach and a marshalling area should be identified and, this information should accompany the 'make up' message. This will ensure that oncoming resources do not compromise the incident ground by blocking access and egress routes for other emergency vehicles.

It should be noted the NICS is currently under review, as part of the work being carried out by the National Operational Guidance Team.

ELECTRICAL FIRES IN PAVEMENT INFRASTRUCTURE

Issue 25 of Operational News (October 2013) highlighted the dangers associated with fires involving pavement level electricity cable ducting and infrastructure. Since this article there have been three more similar safety events.

At one recent incident involving a fire in pavement level electricity cable duct, the resulting explosion spread debris across a considerable distance, graphically displaying the high potential for serious injury. Despite the clear guidance provided to crews, video footage from a recent incident which was posted on YouTube clearly showed a crew applying water directly into a flaming electrical pavement pit following an explosion.

There is high potential for firefighters to sustain severe injury or death at this type of incident, the risks are significant. The most common cable voltage in underground electricity ducts will be between 240 and 415 volts, however cables carrying up 132,000 volts can be found close to the surface. Electrical arcing from sub surface cabling is a real hazard, a spark or arc can travel (jump) substantial distances and could result in a fatal injury.

Incident commanders (ICs) must ensure that crew and public safety is not compromised and immediately implement a hazard zone, whilst a dynamic risk assessment is undertaken. All hazard zones and cordons must be strictly controlled to protect both members of the public and emergency service responders. When it is confirmed that a fire and/or explosion has originated from an electricity installation, a priority message must be sent to Control, requesting the immediate attendance of the electricity or other utility service provider. Consideration is to be given to requesting the attendance of a gas suppliers representative (if in close proximity), as the force of any explosion may result in damage to adjacent gas supply pipes. In all cases, 'covering jets' must be laid out to protect surrounding property and risks.

When crews are ordered to 'smoke issuing' from pavement or inspection covers, the IC must treat this incident with due care. Crews MUST NOT attempt to lift any inspection covers or pavement slabs. Crews must not apply water to any fire or smoke issuing from pavement level inspection pits or holes where there has been an explosion at pavement level.

The attending utility representative (responsible person) will isolate the supply and will give advice on any risks still present (the potential for residual electrical current) and to advise on other related hazards. Failure to first seek and then comply with this advice could prove fatal!

LFB00032744_0002

Hose management at incidents

Lines of hose on the fire ground are a major cause of safety events. Accident data over the last three years shows that a quarter of 'slip and trip' events during operations are attributed to hoses. This resulted in 1,249 working days lost and 461 light duty days and of these events, 25 were reportable to the Health and Safety Executive (HSE). Although the main responsibility for the management of hoses on the fire ground rests with the incident commander, there are a number of safety precautions that should be considered by everyone involved to minimise the risks of slips and trips. A dynamic risk assessment of the incident ground will identify what control measures are necessary.

Simple measures are often sufficient for controlling the risks, which include:

- Running hoses along walls and borders when possible.
- Ensuring that there is adequate lighting in the area, consider the installation of temporary lights when necessary.
- Avoiding hose lines being submerged in water.
- Deploying the minimum amount of hose for the job and making up unused hose as soon as possible.
- Hauling hose lines aloft up the outside of a building where possible to avoid congestion on stairs as well as mitigating potential for water damage.

Garden party season is upon us – the use of LPG cylinders

The barbecue season is here which will no doubt bring with it the annual increase in cylinder incidents related to LPG fired barbecues and patio heaters. The majority of heaters and barbecues will have been placed in the back of the shed or garage and forgotten about over the winter. It goes without saying that some will be wheeled out and lit without being checked.

It is often only after the barbecue or heater is lit that damage to hoses or seals results in an escape of LPG, and an uncontrolled fire ensues.

Now is a good time to ensure that all staff are familiar with and understand the hazards and risks posed by this type of scenario, and the on arrival actions to take when you are mobilised to a similar incident.

WORKING AT HEIGHT WITH OTHER AGENCIES

The Brigade is frequently mobilised to incidents involving people in distress or trapped at height. These incidents will often involve working with other agencies, particularly the Metropolitan Police Service (MPS); it is very important therefore that officers understand the limits of each agencies' capability.

Aside from the MPS, no other emergency service in London has the ability to safely deploy at height using their own complete and self-contained line system. Therefore, at some incidents it may be necessary to provide access for other agencies, using Brigade line operations equipment.

Examples might include facilitating an engineer to access a control panel, or positioning a HEMS doctor to stabilise a casualty before moving them, these actions are completely acceptable. At incidents where there is not 'Police Primacy' the London Fire Brigade is responsible for all safety, including those from other agencies, therefore they must be fully briefed and monitored at all times.

Staff from other agencies should only use Brigade line operations equipment, except where there is a formal agreement as in the case of the London Ambulance Service Hazardous Area Response Teams (HART) who have their own harnesses. The IC should always consider requesting the assistance of a Brigade tactical adviser rescue (TAR) and/or an inter-liaison officer (ILO) to give further advice at incidents that include other agencies staff working at height.

POLICE INCIDENTS

Many of the incidents involving people trapped or in distress at height, are the responsibility of the police. These may be people:

- In crisis and threatening self-harm, normally to jump from height.
- Making some form of protest.
- Attempting to evade capture by police.

In these circumstances, individuals are likely to be unpredictable and behave irrationally or aggressively towards those who are trying to assist them. Officers must confirm with the police on scene that crews will not directly intervene, as our crews are not trained to tackle violent members of the public, nor is it appropriate for them to try to control or restrain anyone. The early advice of a TAR and ILO should be sought if the police want to use crews and/or Brigade equipment. Negotiating is the responsibility of the police, and crews should avoid being drawn into any negotiations and seek early assistance from the police.

People trying to evade capture may be in genuine need of rescue and appear compliant until they reach a place of safety, when they may attempt to continue their escape, therefore the police should lead in any intervention.

Under no circumstances should crews attempt a snatch rescue – restraining someone against their will is not the responsibility of the Brigade and, such acts could lead to civil or criminal action.

As a general rule the IC should only proceed with a rescue at a police led incident if the casualty requests help or becomes unconscious or incapacitated. The advice of the ILO, TAR, police negotiator coordinator or senior police officer in charge should be sought while planning for this situation. Confirmation that the police negotiator or senior police officer has judged that the individual no longer presents a risk to crews should be formally recorded in a 'decision log' to ensure an appropriate audit trail exists. Particular considerations regarding the police capability include:

1. The initial MPS attendance will consist of first responders who are unlikely to have received any safe working at height training.
2. The next level of attendance is officers of the hostage and crisis negotiation unit. These are more likely to have completed safe working at height training and they carry safe working at height equipment which is compatible with the Brigade's line rescue equipment. Any deployment of these officers should be facilitated on the advice of the TAR/ILO officers.
3. The MPS also have available a specialist rope team which is part of their public order provision (CO11). The rope team are fully trained in dealing with protesters, searching for suspects, rescue and carrying out rapid intervention at height. They may provide their own rescue/recovery plan or require crews to stand by to provide a rescue capability for their own responders.
4. First responders and negotiators may need to be protected using the Brigade's line ops equipment if the CO11 team have not arrived. The MPS have the following minimum expectations at incidents at height where their officers are deployed using a Brigade safe system of work:

- That MPS officers are secured at all times (this includes within the cages of aerial appliances).
- IMPS first responders and negotiators must not climb unsecured ladders and must be secured themselves while climbing or using a ladder.

FIRE SURVIVAL GUIDANCE

In early April 2014, improvements were made to the way we mobilise in response to fire survival guidance calls, and an article was published on hotwire detailing what these changes were. However comments recorded on the Incident Monitoring Process Database (IMPD) by Brigade Control and operational staff have highlighted a number of misunderstandings surrounding the application of the policy.

When an incident commander declares a fire as 'persons reported' and Control confirm that fire survival guidance is being given, Control will mobilise the predetermined attendance (PDA) for a 'persons reported' fire (and any other resources requested), plus the additional resources required to manage the fire survival calls 1xCU, 1xSM, 1xPL WM. The additional resources will be mobilised exclusively to manage the fire survival guidance calls, and will be shown as a unique attribute. As an example, H241 being mobilised for fire survival guidance will be shown as 'H241 @ H24 AS FSGP'.

Property involved	Number of FSG calls	Appliance type	Appliance numbers
Any premises	**Any number of FSG calls**	CU	1
		SM	1
		FIU	0
		PL with WM	1

Example 1 – FSG in progress at an incident where 'persons reported' has been declared by the IC.

Property involved	Number of FSG calls	Appliance type	Appliance numbers
Any premises	**Any number of FSG calls**	CU	2
		SM	2
		FIU	1
		PL with WM	1

Example 2 – FSG in progress at an incident where 'persons reported' has not yet been declared by the IC.

In another example, Control confirm fire survival guidance is being taken but the incident commander has not yet declared the incident 'persons reported' Control will mobilise the FSG attendance as well as the 'persons reported' attendance.

It is still the responsibility of the IC to declare the incident as 'persons reported'.

INCIDENT MONITORING PROCESS DATABASE

The quantity and quality of both positive and development Incident Monitoring Process Database (IMPD) entries from all areas of the organisation has greatly improved. This has allowed good performance to be formally recognised and, areas of development to be addressed through training, review of policy and procedure, improved equipment or a combination of all.

HSG65 'Successful Health and Safety Management' states that monitoring systems should be in place to provide information to the organisation, line managers and individuals in order to feedback and influence improvements. Since the IMPD was established in 2005, over 75,000 observations have been recorded.

Information on performance is gathered at incidents and training events by monitoring officers and the Operational Review Team (ORT). This is further supported from observations made at Performance Review of Operations (PRO) and Performance Review of Command (PRC) processes. This information is recorded on the IMPD and analysed by the Incident Management Team (IMT) who then produce a quarterly report highlighting any emerging trends. Comments recorded on the IMPD are acted upon by the IMT to ensure that timely changes and improvements are implemented.

Recently, after crews experienced difficulty in cutting through boronated steel on a range of modern cars, comments were provided to colleagues in the procurement team which resulted in higher specification Holmatro 4050 NCT cutters being provided for the FRU fleet. This is a good example of how IMPD comments contribute to equipment changes and service improvement.

The IMPD is predominantly used by station managers in their role as monitoring officer, however watch and crew managers are being actively encouraged to use the system.

Accessing and entering observations on the IMPD is straightforward and simple:

- The system is accessed via the IMS desktop icon.
- From the IMS homepage, right mouse click on the **Incident** and select **Incident Monitoring** from the drop down list.
- This will take you to the monitoring details page where you can select **Add** and record your observations.
- It is important to record observations against either teams, individuals or organisational categories and then click on the **Submit** button.

Full details on how to populate the monitoring report details page can be found in the IMPD User Guide; Appendix 1 (IMPD Quick Guide) gives a basic example of how this is achieved. If you require further help and assistance either email or call the Incident Management Team.

LFB LIAISON WITH PUBLIC TRANSPORT

Incident commanders (ICs) should be aware that any incident occurring on the London transport infrastructure will have wide ranging implications on business continuity and the safety and welfare of transport users. With this in mind it is important for London Fire Brigade to facilitate a swift return to normal operations – this can be achieved through close liaison with other agencies at silver meetings.

LFB RESPONSE

The generic response to incidents involving transport infrastructure will include some or all of the following elements:

- Determine who owns the affected transport stock and/or infrastructure.
- Make contact with a responsible person on scene or through Control.
- Implement appropriate and proportional control measures to ensure safety.
- Stop or restrict traffic movement when necessary, reinstating traffic movement as soon as practicably possible.
- Ensure and maintain a safe system of work appropriate and proportional to the incident and the service/s affected.
- Early consideration to the impact on the wider community, public services and business continuity, this should be part of the IC's planning and high priorities.
- The IC should arrange a timely handover and return to normal operations.

RESPONSIBLE PERSON

The transport providers tactical advisers will usually be a nominated 'responsible person' who will liaise directly with the emergency services, ideally the IC at silver meetings.

LONDON UNDERGROUND ADDITIONAL RESOURCE CAPABILITIES

LU operating official (responsible person)

The nominated 'responsible person' will liaise directly with the emergency services, they will wear the appropriate tabard and will assume a tactical level of management. The station supervisor will be on scene and, the duty manager or network incident response manager will arrive by emergency response, transported by the British Transport Police.

Emergency response unit (ERU)

London Underground has its own emergency response units (ERU) located at Camden, Acton, Battersea and Stratford. They work to support the emergency services and are trained and qualified to deal with incidents that require specialist engineering and mechanical expertise on LU infrastructure. This includes signalling, track and the various owners of train stock and equipment. The ERUs based at Stratford and Camden have blue-light capability and are driven by British Transport Police drivers.

London Underground control centre (LUCC)

The London Underground's control centre is a 24-hour, 365-day service to the network which coordinates the LU response to incidents by collating and disseminating real-time service information. This also includes liaison and communication between LU, external agencies and the emergency services. During protracted or complex incidents the Brigade may be requested to attend the LUCC in a liaison role.

MODEL RESPONSE: ATTENDING AN INCIDENT ON LONDON UNDERGROUND INFRASTRUCTURE

The following list describes the model response that transport managers will provide at an incident on the London Underground network.

- LU qualified staff on site will assume the role of responsible person and will liaise with the emergency services until a more senior operating official arrives.
- LU will despatch an operating official to all incidents that the emergency services are attending.
- Subject to dynamic risk assessment, the Brigade will await the arrival of the nominated responsible person before any emergency service staff enter the track area.
- For incidents on LU infrastructure, the LU responsible person will be the lead railway representative for coordinating the wider rail industry and providing site-specific information.
- If the incident involves a LU train on Network Rail infrastructure, the Network Rail RIO will be the lead rail representative.
- The ERU will support the incident by working with the emergency services and the LU responsible person to ensure the timely recovery of services.
- The LU operating official and emergency services personnel will wear appropriate PPE including hi-visibility clothing when on the railway.
- The operating official and the emergency services will convene a multi-agency silver meeting where the leads from each agency agree and coordinate a plan to achieve each agency's priorities, ensuring a timely recovery to normal service.
- Following an assessment of the situation, all on-site requests for train movements, traction current supplies and other operational issues relevant to the incident will only be made to the LU responsible person on site.
- In the unlikely event of no LU responsible person being present or in exceptional circumstance, each emergency service will contact their own Control to request the implementation of reasonable safety measures

Note: until confirmation is received it must be assumed that the traction current remains live and lines remain open to the passage of trains.

LFB00032744_0006

DYNAMIC AIR FLOW PRESSURE RELIEVING MATTRESSES AND MEDICAL O_2 CYLINDERS

Over recent years there has been a notable increase in the number and frequency of incidents involving Oxygen (O_2) and other medical gas cylinders in domestic fires. There has also been an increase in the number of incidents where dynamic air flow pressure relieving mattresses used by patients in their home have been involved in fires.

Strategic changes in NHS healthcare provision mean that an increasing number of chronically ill patients receive treatment in their own homes. Many such patients rely on oxygen to assist with their breathing and, many bedbound patients are provided with air mattresses.

A recent fire in Chiswick made national news after two medical gas cylinders exploded in a fully developed fire in a ground floor flat. There have been several similar incidents across the UK in recent years, and the Chiswick incident highlighted the potential dangers that firefighters can face when dealing with incidents of this type.

Association of O_2 cylinders with bedbound patients is common and, if involved in fire the results can be spectacular and catastrophic. Cylinders within domestic premises will not always be obvious. Over recent months officers have been working closely with the NHS and their appointed contractors in an effort to identify every domestic address in London where medical gases are being used and stored. This information is uploaded onto the Operational Risk Database (ORD) and is available via the Mobile Data Terminal (MDT).

The average patient will have an O_2 concentrator (which ceases to provide Oxygen when the electricity supply is cut), a large back up cylinder and possibly one or two small portable O_2 cylinders. Alternatively, patients may have a liquid oxygen storage facility.

OPERATIONAL CONSIDERATIONS

- Crews attending incidents where they suspect or where it is confirmed that O_2 cylinders are present, must adopt procedures as defined within PN376.
- In a fire situation, crews should be alert to small portable O_2 cylinders or O_2 generators which can pose a significant risk.
- As well as the risk of a cylinder(s) being involved, crews should also be mindful of O_2 supply pipes which may become involved, adding to the intensity of the fire.
- If the person has health and mobility issues, they will be less able to react to a fire.

DYNAMIC AIR FLOW PRESSURE RELIEVING MATTRESSES

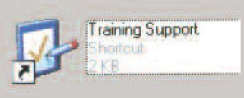
Dynamic air flow pressure relieving mattresses in domestic premises are becoming more common, as the NHS attempts to treat greater numbers of patients in their own home. These mattresses are designed to alleviate bedsores and are inflated by an electric pump with a battery backup. The effect of a battery backup means that the pump will continue to operate even if the power supply fails. Recent fires which have involved medical air mattresses have been caused by careless disposal of smoking materials. Emollient creams used by patients to alleviate dry skin conditions has contributed to rapid fire spread, as bedding materials have been impregnated with the creams, the mattress has been compromised by fire, and the escaping air (fed by the air pump) has resulted in rapid and intense fire development.

Steel medical O2 cylinder ruptured by an explosion.

Example of airflow mattress with a pump.

WATCH TRAINING PACKAGES

Training packages, associated with operational news issues, are available for your immediate use. They can be accessed via an ICON on your desktop which links to all the current training materials related to the items below and previous packages. Additionally there are links to trainee packages and support material. Just click on this ICON on your desktop.



Red represents training themes are mandatory for all watches – new training material is available.

Amber represents training themes are mandatory for all watches – existing training material is available.

Article	Training	Guidance and supporting information	STEP – Recording reference (Create on STEP)
Messages from incidents	Article and package	**PN 518** Messages from incidents BIG learning (knowledge centre) – Operational News 27 Training	Lecture/Training notes/Training/ Ops news 27 – Messages from incidents
Command structures	Article	**PN162** Officers responsibilities at incidents **PN238** Incident Command procedures **PN408** Incident Command **PN433** Sector Command STSP/Operational Support (Training support icon/training presentations/Operational News training/STSP Operational Support) STSP/Sectorisation (Training support icon/training presentations/Operational News training/STSP sectorisation)	Lecture/Training notes/Training/ Ops news 27 – Command Structures
Electrical fires in pavement infrastructure	Article	**PN769** Incidents Involving Electricity STSP/Electricity (Training support icon/training presentations/Operational News training/STSP Electricity)	Lecture/Training notes/Training/ Ops news 27 – Electrical fires in Pavement infrastructure
Hose management at incidents	Article	**PN757** Hose ramp – HR3 – technical information **PN749** Hose layer unit (HLU)	Lecture /Training notes/Training /Ops news 27 – Hose management at incidents
Garden party season is upon us	Article	**PN376** Cylinder Procedure **PN796** HAZMATS; fires and incidents involving hazardous substances	Lecture /Training notes/Training /Ops news 27 – Garden party Season is upon us
Working with other agencies at rescues from height	Article	**PN 547** Line Operations STSP/Multi Agency Response (Training support icon/training presentations/Operational News Training/STSP Multi Agency Response)	Lecture/Training notes/Training/ Ops news 27 – Working with other agencies at rescues from height
Fire survival guidance	Article	**PN790** Fire Survival Guidance	Lecture /Training notes/Training/ Ops news 27 – Fire Survival Guidance
Incident management process database	Article	http://hotwire/operations/iris/media/IMP_User_Guide_ver_0_8.pdf	Lecture /Training notes/Training/ Ops news 27 – Incident management Process database
Dynamic air flow mattresses and medical O2 cylinders	Article	**PN376** Cylinder Procedure STSP/Cylinder Incidents (Training support icon/training presentations/ Operational News Training/STSP Cylinder Incidents	Lecture /Training notes/Training / Ops news 27 – Dynamic air flow pressure relieving mattresses and medical O2 Cylinders
LFB liaison with public transport	Article	**PN316** Railway Procedure STSP/Incidents on LUL, DLR and Tramlink (Training support icon/training presentations/Operational News Training/STSP Incidents on LUL, DLR and Tramlink	Lecture/Training notes/Training/ Ops news 27 – LFB Liaison with public transport

A range of practical drill options for the above subjects are recordable under – drill/*use pull down list for appropriate drill.

All training associated with Ops News 27 is mandatory and should be completed in the next quarter's training plan. This will then be evaluated utilising the Questionmark system.

SENIOR OFFICER COMPUTER BASED TRAINING (CBT)

Computer based e-learning training packages are available for your immediate use. They can be accessed via an ICON on your Desktop which links to the Brigade's knowledge centre.

Article	Training	Guidance and supporting information	Knowledge Centre – Recording reference
Messages from incidents	CBT package	Bespoke E-Learning modules are available through the BIG learning (knowledge Centre) via the Training Support Icon on your desktop. These E-Learning packages are mandatory for all group and station managers. They must be completed within three months of the publication of this Operational News.	All package completions will be recorded on individual training records (ITR) which will be updated on a monthly basis allowing managers to monitor progress.

Operational News is printed on FSC (Forest Stewardship Council) certificated paper that guarantees well managed forests.