OPERATIONAL NEWS

LFB

The newsletter for all London Fire Brigade operational staff

Issue 26 **January 2014**

Weight of attack

Operational decision making regarding weight of attack has significantly improved over recent months. This has been highlighted in the current positive trend data gathered from the dynamic intelligent operational training (DIOT) reporting process, further supported by the incident observations recorded by the Operations Review Team.

The Ops News Special published in November 2012, carried an article on Compartment Firefighting together with requirements for a specific training package, where the benefits of implementing the correct weight of attack were clarified and explained.

The introduction of the two new Rosenbauer branches (SelectFlow RB101 and Projet 2) with their improved operation, has certainly enhanced the LFB weight of attack tactics. This combined with a greater understanding of their use and application, especially with their better performance at lower pressures, has certainly assisted with the increase of positive comments.

The main benefit of employing the appropriate weight of attack is, ensuring a fire is extinguished safely and effectively through the correct application of the appropriate quantity of water, greatly reducing the risk of personal injury. Compartment fires are cooled through the correct application of the appropriate volume of water, and in turn fires are extinguished quicker. There has been a positive response to the training, specifically through improved tactical decision making, ensuring the correct weight of attack is implemented. It has also been recognised that the early deployment of 45mm hoselines is the optimum firefighting media.

The increased number of positive comments recorded on the IMP database, confirms that incident commanders and crews are demonstrating an enhanced understanding of the capabilities of different size hose and branch combinations and are engaging the correct tactical response when assessing the size of and potential fire development.

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.

Command roles and tabards

The importance of an appropriate command structure implemented during the early stages of an incident cannot be over-emphasised. Visible lines of command coupled with clear briefings aligned to the decision making model (DMM) are essential to the smooth running of incidents. When such command structures are established, staff at incidents are able to clearly identify who is responsible for each area of work, and where any information required can be sourced. This enhances communication clarity and speed, increases safety, and identifies resource and specialist support roles.

It is therefore vital that fireground officers who form part of a formal command structure are clearly identified using the appropriate tabard and insert. When officers are acting-up it is equally important that the role markings for the higher role are correctly displayed.

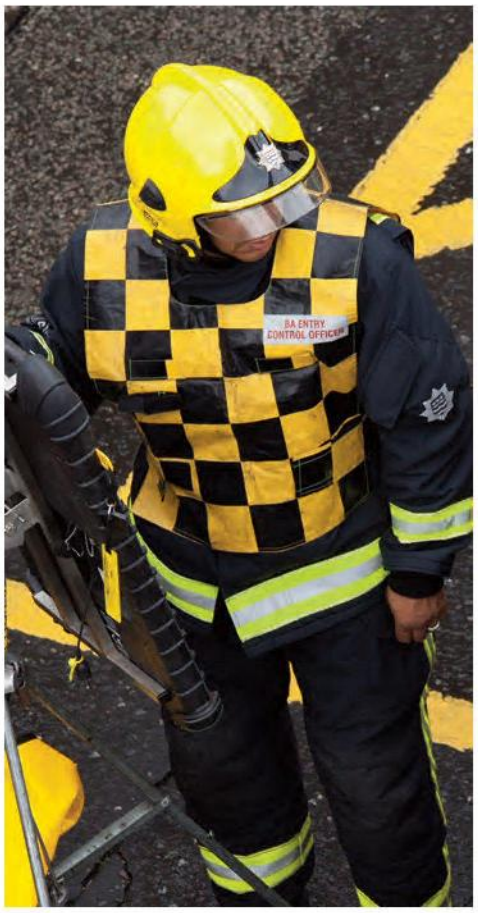
Incident commander (IC) tabards are now carried on all pumping appliances to identify ICs at the early stages of incidents. These tabards should be donned at the earliest opportunity.

The arrival of a command unit (CU) at the incident provides access to further tabards denoting numerous other roles including monitoring officer, sector and operations commanders, safety officer, BA communications operator, BA main control and marshalling. It should be noted that some of these roles, for example, safety officer, can be undertaken at the role of firefighter, and once given a specific role the member of staff should obtain the appropriate tabard from the CU.

All other specialist officer tabards are personal issue only and should be donned appropriately upon arrival by the officers concerned.

WHO IS THE INCIDENT COMMANDER?

- The appliance commander of the first attendance is designated as the IC unless relieved by a manager of a higher level.
- Watch managers, irrespective of whether they are in an A or B role, will assume the role of IC.
- The watch manager on whose ground the incident occurs will assume command.
- Should the watch manager from the station's ground not be in attendance, the first watch manager in attendance will take command.
- Where a temporary and a substantive watch manager are both in attendance at the same incident the substantive watch manager will assume command.
- At incidents that attract a watch manager as incident commander, the 'stop' message should not be transmitted until the watch manager has attended and completed an incident assessment.
- There is no differentiation in authority levels for senior or principal officers, for example, a substantive station manager is not senior to a station manager who is temporary or on development.



WHICH ROLE MARKINGS AND WHERE?
The following table identifies the correct role markings to be worn on both helmet and collar.

Role	Markings
Substantive	**HELMET:** Substantive **COLLAR:** Substantive
Promoted on to a development programme	
Specialist on a development programme	
Temporary/acting up to cover vacancies	**HELMET:** Substantive **COLLAR:** Temporary
Substantive specialist returning to operational development	
Targeted development	

SLIPS, TRIPS AND FALLS

Slips, trips and falls are the largest cause of accidents on Brigade premises. Whilst such an event may be very minor, these simple events can cause significant injury. Not only can the immediate aftermath need remedial action, there can be on-going issues including financial costs to both the individual and the Brigade.

As part of a wider Brigade campaign to reduce these accidents, Health and Safety Services have started to conduct slips and trips risk assessments for all Brigade premises. They do this by using measuring equipment to gauge a floor's slip resistance and by identifying trip hazards on premises.

Once completed the results of the assessment are sent to the station manager or equivalent, who is responsible for taking the necessary remedial action needed if high risk areas have been identified. The report is then stored in the premises log book.

The information gathered from these surveys can also be used to try to improve the characteristics of the flooring surfaces used in stations when a refurbishment is undertaken.

Measuring equipment can also be used as part of an accident investigation if a slip, trip or fall accident occurs. If appropriate, the flooring where someone has slipped will be measured to establish whether the slip resistance of the floor covering was a contributory factor in the safety event.

If you see anyone from Health and Safety Services measuring the slip resistance of the flooring in your station and you want to know more about what they are doing, do not hesitate to speak to them and they will happily discuss the process and give you a demonstration.

Look out for information on the health and safety campaign starting soon.

This image shows the depth and proportions of some tunnel shafts.

Tunnels under construction in London

There are currently a number of major subsurface construction projects underway across Greater London, with further significant, complex and extensive projects in the planning stage. These include Cross-Rail and upgrades to the London Underground system, as well as major infrastructure tunnelling work linked to the energy, water and communications sectors.

These tunnelling and subsurface construction projects pose a variety of risks to fire service operations, and operational staff should be reminded of the importance of pre-planning, exercising, safe systems of work and effective on-arrival tactics.

TUNNELLING PROJECTS CURRENTLY UNDERWAY

Crossrail: A high frequency, high capacity metro service to 37 stations linking Maidenhead and Heathrow in the west, to Shenfield and Abbey Wood in the east. There are currently five tunnel boring machines in the ground constructing a total of 42km of tunnel for the project, with this phase of work due to finish in 2014. There are currently over 7,000 people working at over 40 construction sites along the route. The whole project is due to be completed and receiving passengers by 2018.

National Grid – London power tunnels: In February 2011 National Grid embarked on a seven year project to rewire the capital via deep underground tunnels, in order to meet increasing electricity demand. In total 32km of tunnels are being constructed between 20m and 60m deep below the road network.

FUTURE TUNNELLING PROJECTS AWAITING FORMAL PLANNING CONSENT

Thames Tideway: The Thames Tideway scheme involves construction of a waste/sewage tunnel running from Acton in the west of London through to Abbey Mills in the east. The captured sewage will then be transferred to Beckton Sewage Treatment Works via the Lee Tunnel (already under construction) for treatment before being released. The main tunnel will be approximately 25km long and have an internal diameter of 7.2m. It will run through the centre of London, mostly under the River Thames, at a depth of 30m in the west through to 70m in the east.

LU Northern Line Extension: The Northern line extension to Battersea is a planned extension of the London Underground Northern line from Kennington to Battersea Power Station. The extension will form a continuation of the Charing Cross branch of the line.

HS2: High Speed 2 (HS2) is a planned high-speed railway between London Euston and the Midlands, North West England, West Yorkshire and potentially the central belt of Scotland. HS2 will start

from a rebuilt London Euston. The station will be extended to the south and west with significant construction above. Twenty four platforms will serve high speed and classic lines to the Midlands, with six underground lines. The plans also include a proposed rapid transit 'people mover' link between Euston and St Pancras.

TUNNELS UNDER CONSTRUCTION – HAZARDS/RISKS

Many of the risks related to the construction of tunnels are the same as any heavy civil construction operation. However, some risks are unique to tunnel construction and are exaggerated as a result of the works being underground. All of the following should be considered:

- Absence of facilities providing fire or smoke separation, including compartmentation.
- Absence of facilities provided for access to or rescue from the infrastructure, including hard standing, firefighting stairs, lifts, walkways, etc.
- Limited communication facilities available to responders or infrastructure managers.
- Large workforce.
- Workers travelling from one contractor's area of authority to another.
- Transient or temporary risks, such as vehicle movements, hot cutting, hazmat transport and storage, structural stability issues.
- Long travel distances/dead end tunnel conditions.
- Inundation – flooding into the tunnel environment.
- Electrical hazard risks.
- Many tunnels under construction are accessed by shafts and if there is not a hoist available access will be via a fixed ladder, stairs tower, or a crane. At the bottom of a shaft there is always potential for falling objects.
- Asphyxiation/lack of oxygen/ noxious gases.
- Pressurised workings: During the construction of tunnels or subsurface infrastructure, compressed air may be used to manage groundwater and facilitate excavation.

INFORMATION GATHERING/ CONTINGENCY PLANS POLICY NOTE 800

The importance of pre-planning (information gathering) is crucial if firefighting or other operations undertaken by the Brigade are to be successful. It is necessary for all operational staff to continually review and evaluate tunnel construction sites relevant to their station.

Following an initial visit, information relating to the construction site and tunnel should be recorded on the operational risk database (ORD) and every opportunity is to be taken to ensure all watches share information, and incorporate this into station and borough training plans. This should assist all station staff to familiarise themselves with the hazards and risks identified. Any operational calls to tunnelling sites where records are held should be taken as an opportunity to test that information.

An important part of this process must be for officers to continually reconsider and evaluate the suitability of visits and records being maintained.

Borough commanders are to ensure that plans are revised and updated as necessary. This will normally be done as the site/premises is visited as per the station diary schedule. The station manager using the risk-based approach should decide the frequency of visits.

Staff should also be aware of BS 6164 Code of Practice for Safety in Tunnelling in the Construction Industry.

LIMITATIONS OF EQUIPMENT

There may be circumstances at an incident within a tunnel where the travel distances involved or conditions within the tunnel environment exceed the limitations of the Brigade's operational equipment and capability. Any previous site visits and pre-planning that has taken place should include establishing maximum travel distances. Any on-arrival tactics should take this information into account. Incident commanders must always ensure that a comprehensive operational risk assessment is carried out before committing crews into a tunnel environment.

BRIGADE OPERATIONAL RESILIENCE/ STRATEGIC PLANNING

All tunnelling projects within London are considered by the Brigade's Transport Fire Safety Team within Fire Safety Regulation (FSR), ensuring that full compliance with industry best practice and regulations are complied with. The Transport Liaison Team within the Operational Resilience Department also meet with construction delivery project teams to develop specific site and local contingency plans. This enables the Brigade to undertake its normal core service activities and respond effectively and safely to emergency incidents at tunnelling construction sites.

This image shows the working environment that could be encountered within tunnels.

Beds in sheds

There has been an increase in the number of incidents where people have been found sleeping in unsuitable accommodation which does not have the necessary fire safety measures to ensure the safety of the inhabitants. The Brigade has agreed that a building used as unsuitable accommodation can be defined as: living in buildings or structures which are not designed, built or safe for use as living accommodation.

These types of accommodation may include: stand alone structures (for example outhouses, sheds, garages), derelict/disused/void premises (for example commercial buildings such as pubs/offices) or temporary structures (for example makeshift tents). In the four year period between 1 April 2009 to 31 March 2013 there were a total of 341 fires in buildings which should not have been occupied, but showed signs of occupation in London. These resulted in nine fire deaths and 58 serious injuries.

THE IMPACT OF THE PROBLEM

The issues are complex and examples range from individuals or families living in a disused commercial building to those living in an outhouse or garage (Beds in Sheds).

Outbuildings

If a homeowner is planning to let or use an outbuilding as living accommodation it normally requires planning permission, must meet the requirements of the building regulations and in the case of lettings, comply with a raft of other legislation. Some people are being placed into substandard, often overcrowded accommodation such as outbuildings.

Living in disused/derelict premises not designed for habitation

When called to a non-residential premises, habitation is not expected and this may impact upon the Brigade's operational response. Crews need to be aware of the location of these premises so they can plan their response accordingly. These buildings may be structurally compromised, such as removed lift shafts or flooring and fire doors or means of escape are often compromised. There may be risks from disused gas cylinders, excessive fire loading, syringes, human/animal waste and other unknown hazards.

These risks would impact on firefighters, occupants and those living in close proximity to these premises if a fire were to occur. There are also possible risks towards firefighters from the occupants themselves if they become hostile or aggressive under the influence of drugs/alcohol. The electrical and/or gas supply in squats is often non-existent, leading to use of dangerous alternatives such as gas cylinders. Illegal tampering with utility supplies from the street or neighbouring properties can also increase risk. Many rogue landlords who rent out outbuildings, dangerously extend plumbing and electricity connections from the main property into the garden sheds and garages.

ALLEGED FIRE RISKS AND HOME FIRE SAFETY VISITS

Officers should contact the Fire Safety Regulation Team for advice where alleged fire risks are identified. The local authority can take action against the premises owner and look into alternative housing support for the occupants.

All residents are entitled to fire safety advice irrespective of whether consent is given from the property owner or the type of living accommodation. Risk reduction advice should be offered to the occupants and a smoke detection device can also be fitted where appropriate. The number of detection devices fitted is to be proportionate to the risk presented.

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AMBULANCE ATTENDANCE AT INCIDENTS

In recent months entries have been recorded on the incident management process database (IMPD) concerning the late arrival or non attendance of ambulances at incidents by the London Ambulance Service (LAS).

The LAS cover approximately the same area as the Brigade and have:

- 400 ambulances
- 200 response cars
- 30 motorbikes
- 30 bicycles
- 1 HEMS (helicopter emergency medical service)

These cover their emergency operational response on a daily basis. The LAS attends on average 5,000 calls per day with an average time of 90 minutes taken to deal with each incident.

To facilitate the high level of calls with their available resources and make best use of their emergency ambulances, the LAS has introduced the LAS Demand Management Plan. This plan enables the LAS to prioritise its resources and ensure the correct attendance is made.

Their first priority attendance is classified as Cat A/Red 1. This type of incident involves life threatening conditions, such as cardiac arrest, where there are immediate life threatening medical conditions for which an ambulance is required to attend within eight minutes and removal of the casualty within 19 minutes.

Where there are no immediate life threatening circumstances, but an attendance is still required, the ambulance controller will then ask the caller a range of medical based questions that have been designed to assist them in determining the casualty's status and the response required.

These are arranged into four groups with their respective attendance times listed below and are determined by the LAS controllers asking medical based questions.

Cat C1: This requires an ambulance on scene within 20 minutes.

Cat C2: This requires an ambulance on scene within 30 minutes.

Cat C3: These calls will be assessed by a paramedic in their control room prior to the despatch of an ambulance, as in many cases they will not require the attendance of an ambulance.

Cat C4: Where an ambulance is assigned to these categories, the response time may be up to one hour.

To assist the LAS in despatching the correct attendance at incidents, full and detailed information of the casualties status is required.

An example may be that crews rescue a casualty from a fire situation and the information passed to Brigade Control is that they are suffering from shock, and are conscious and breathing. If this is the only information passed across, the LAS may determine that the correct response is for a Cat C2 band and allocate their resources accordingly. However, if the full details of the casualty, sent in an informative message are – they are aged 84, suffering from shock, are conscious and breathing but with difficulty and oxygen is being administered by Brigade crews. This more accurate information may determine that an LAS response with a greater priority rating is allocated.

If the casualty's condition deteriorates whilst under the care of the Brigade, this information must also be passed to the LAS via Brigade Control immediately as this may impact on the LAS attendance.

The casualty report form (CRF) must always be completed as fully as possible, and handed over to the NHS representative who takes over care for the casualty, as this details the presenting conditions and any treatment administered. Action points for crews:

- Provide full and detailed casualty information to Brigade Control.
- Always complete the CRF with as much information as possible.
- Do not take members of the public to hospital by any type of Brigade vehicle.

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)
Weight of attack	Article	**Policy 793** Compartment firefighting	Lecture/Training notes/Training/Ops news 26 – Weight of attack
Command roles and tabards	Article	**Policy 693** Structural firefighting personal protective equipment (PPE) **Policy 162** Officer responsibilities at incidents **Policy 431** Incident Commander	Lecture/Training notes/Training /Ops news 26 – Command roles and tabards
Slips, trips and falls	Article	**Policy 536** Statutory Health and Safety inspections procedure **HSE guide** Preventing slips and trips at work available by following this web link www.hse.gov.uk/pubns/indg225.pdf	Lecture/Training notes/Training/Ops news 26 – Slips, trips and falls
Tunnels under construction in London	Article and package	Training Support Pack **(Tunnels under construction in London)** available through training Support Icon – Knowledge centre – Operational News 26 Training	Lecture/Training notes/Training/STSP Tunnels under construction in London
Beds in sheds	Article	**Policy 784** Notification of fire safety information Form – **FSIGN 111** Fire Safety Regulation Work Devolved To Fire Stations	Lecture/Training notes/ Training /Ops news 26 – Beds in sheds
Ambulance attendance at incidents	Article	**Policy 412** Mobilising policy	Lecture/Training notes/Training /Ops news 26 – Ambulance attendance at incidents

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 26 is mandatory and should be completed in the next quarters 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
Tunnels under construction in London	CBT package	Bespoke e-learning modules with support materials are now available through the Knowledge Centre which is accessible through the training support icon on your desktop. These e-learning packages are mandatory for all group and station managers. They must be completed within 3 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.