

## Report of the 7 July Review Committee Responses to Follow-up Report

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#### Response to London Assembly 7/7 Review's August 2007 Report

In August 2007 the London Assembly's 7/7 Review Committee published an on-going report into the progress in implementation of its recommendations from the first report published in May 2006. National press coverage claimed that the report had highlighted problems and delays with "Airwave" in its roll-out across London and in particular in the London Underground.

Airwave provides the dedicated communications network for emergency responders across Great Britain. As part of the national critical infrastructure, the Airwave network is essential in keeping the country safe, even in the toughest conditions. Airwave carries both voice and data over its TETRA-based (Terrestrial Trunked Radio), encrypted and secure network, depending on its customers' requirements.

What is being achieved with Airwave in Great Britain is unprecedented. The rollout of a national radio scheme for all the emergency and public safety services, offering true interoperability, is a world first. The country is undoubtedly in a far better position to manage major incidents than a few years ago.

Information from the 7/7 report has been taken out of context and there have been some glaring inaccuracies reported. Press coverage that does not reflect the facts accurately can be damaging not only to the company's reputation, but also to the public's perception and expectation of what is being put in place to ensure their safety and well-being.

First, reports indicating that the original Airwave contracts did not provide coverage in buildings or in vehicles. This is inaccurate. Airwave provides extensive coverage into and around buildings. What the original contracts did not stipulate was that the service should cover inside every building, however, (with the exception of special building coverage) a number of buildings would be tested and there would be (and indeed is) coverage in many buildings.

It would be very difficult to provide a comprehensive specification for every building in and around a major city such as London. However, there are special coverage areas, such as large shopping centres, stadia (i.e. Wembley) and other buildings that were designated for guaranteed coverage. Airwave has surveyed buildings and other structures to ensure coverage where required and to guarantee in-building coverage where necessary.

Second, the capacity of the network was also raised in the report, suggesting that major planned events, let alone unplanned events, may prove difficult, and that restrictions would have to be placed on non-essential use of the network.

Commonsense dictates that Airwave and its users must plan for reaching critical levels, particularly for planned major events and unplanned major incidents. It goes without saying that in a mission critical arena, business continuity and forward planning is an imperative element to a resilient communications structure. Airwave therefore enhances the capacity if and when required, and ensures that the network is used in the most efficient way possible. Measures that can be taken to maximise efficiency include suggesting that users do not



make extensive use of the telephony (or voice) function when involved in a major incident/event scenario.

Overall, Airwave in general is running well below capacity and in actual fact, is not even remotely near reaching its limit. Every base station has a 25% increase in capacity possible, and the Network Management Centre can also prioritise calls and other activity on the network as it detects usage increases in specific areas.

Another efficiency gain is already in place through the effective use of talk-groups, to ensure increased levels of demands can and would be met. Talk- groups for instance, are designed to be most effective for major events, allowing true interoperability across the emergency and public safety response. Airwave can also provide additional capacity should it be required ensuring there is no down time for any mission critical use.

Third, the report posed the question of a "back-up network" being available for the emergency and public safety services. Airwave is in effect already two networks – one based on cables and base stations and another based on microwave links. As a stand-alone service dedicated to exclusively to emergency and public safety response the Airwave service is already more resilient than any public network. But Airwave understands and knows that is not enough.

Airwave's customers need to be sure of unbroken service in even the most extreme conditions. Airwave has an independent backup network in London that does not rely exclusively on traditional underground cables. Also the system has separate standby power supplies in the event of power outages. The network also benefits from "hot standby switches" so if a main switch fails, Airwave can transfer immediately to the standby system, restoring functionality within ten minutes. Not only that but Airwave has mobile base stations and emergency response vehicles (ERVs). These can respond in 30 minutes to provide communications if any part of the network is interrupted, above or below ground.

Other issues raised included suggested problems experienced during the Metropolitan Police's Airwave rollout with terminal/handsets and difficulties in training officers to use the new radios. It is always difficult when a customer chooses to purchase different elements of the system from different suppliers (i.e. handsets). Even in circumstances where Airwave does not supply the handsets, the company works with all customers to help them with education and training of users. If required, Airwave will also help facilitate discussions with suppliers for improved services. Airwave is ready and happy to get involved to help resolve any issues from third parties as it is confident in the knowledge of the strength and power of the Airwave network. A good example of this is that Airwave is currently running a series of road shows and training programmes with a number of police forces around the country to help improve the user training and experience.

The rollout for the London Ambulance Service was also cited to have been hit by delays and risks to rollout dates. This is not the case: London Ambulance Service and the Department of Health have asked Airwave to advance the rollout ahead of the original contract which Airwave has agreed to do. Airwave is in fact accelerating the rollout. The company is not anticipating any delays and is working to rollout the service to each Trust in England, Scotland and Wales over the next few months.



Airwave is delighted in particular with the very positive feedback and reaction from users in the first Ambulance Trust to be equipped with Airwave in Essex. In relation to the fire service it is true that Airwave has been delayed in achieving an original milestone. However, a revised rollout programme that will best meet the needs of each regional fire service is currently being negotiated. Each individual regional fire service has different requirements and the delivery programme plan is not necessarily suitable to each, which is why the dates are currently being re-negotiated between the company and the Government's Firelink management team.

Where appropriate, the Airwave service is also being further enhanced to meet individual Fire and Rescue service requirements. There are no further anticipated delays and the rollout is planned to continue for the country's Fire and Rescue Services through 2008/09.

An aspect of the original 7/7 atrocity was the perception that communication did not work underground. Much has been done in the intervening years to correct this. Independently of Airwave, London Underground (LUL) contracted Citylink to build a new driver communication solution: "Connect". By coincidence, it uses a very similar technology to Airwave. When the public safety element of the contract with LUL was signed, it was decided that the most economical and efficient means to roll out the service was for Airwave to 'piggyback' onto the Connect service. There currently have been no delays in this proposed rollout.

Airwave is a first class public safety communication system that enables public safety communications across England, Scotland and Wales to be delivered as a resilient and robust mission critical solution.

If the report suggests that the Airwave service should be even better, then that is good for the general public, the emergency and public safety services that serve them and for the company. Airwave welcomes the opportunity to discuss enhancements to the service - while at the same time remaining emphatic that Airwave is delivering that which was requested and contracted so as to meet the varying needs of the company's different customers.

Airwave Solutions Ltd is supportive of the 7/7 Review Committee and its report, and would like to work with the Committee to address any misunderstandings and misconceptions that have resulted from the publication of the report. Airwave is committed to working closely with its customers. It understands and collaborates on their needs, to ensure that whatever the environment, Airwave is able to provide the best possible, most reliable and resilient communications service. The company's approach is to be constructive, clear, collaborative and committed and if there are changes to the service required Airwave would like to address those issues together with its customers.

Airwave Solutions Ltd. October 2007

## TRANSPORT FOR LONDON UPDATE IN RESPONSE TO RECOMMENDATIONS OF LONDON ASSEMBLY 7 JULY REVIEW COMMITTEE FOLLOW UP REPORT

October 2007

#### Recommendation 4A

We request that Transport for London provide us with a full update on the rollout of CONNECT and Airwave on the underground, with details of any problems with coverage or other issues and how they are being addressed, by 31 October 2007.

We remain on schedule to complete the installation of the CONNECT radio infrastructure on the Underground by the end of 2007. The Airwave deployment can therefore proceed on schedule. Although the Connect radio is being used on approximately (60%) of the underground, the software changes necessary for use with the Train Management systems have slowed the deployment of complete functionality on all lines. These problems have been largely overcome and we expect to complete the full deployment in the next few months as detailed below. These delays <u>do not</u> affect the Airwave deployment or the use of Connect portable radios on the lines.

The Waterloo & City Line is now using the new radio system - the first non-automatically operated, deep level Tube line on which the Connect system has been fully commissioned.

The Piccadilly and Bakerloo lines will be the next to receive the new radio system. All infrastructure on both these lines has been fully installed and is operational on parts of the Piccadilly Line with two station groups already using the new radio system. However the trains on these deep level lines are also non-automatically operated, and because of this there are some specific additional requirements relating to the transmission of alarms over the radio system to the Line Controller. During comprehensive testing of the radio with our contractor, we have experienced some issues in this respect - our contractor has developed solutions for these and once they are fully implemented, we will resume final testing and then go live.

It is planned to start using the Connect radios on Piccadilly Line trains at the end of October 2007, with the Bakerloo Line coming into operational service at the end of November 2007.

The infrastructure on the remaining lines (Central, Jubilee and Northern) will be fully installed by the end of 2007. It is planned to have commissioned Central line stations into operational service by the end of 2007, with the Central line train fleet following in early 2008. Jubilee and Northern Line stations will follow along with their respective train fleets, with the new radio system in use on the entire network by mid 2008.

The deployment of the Airwave system across LU is going ahead to programme with completion due by mid-2008. LU's Connect team is also working with its contractor on an emergency deployment plan for radio communications for the emergency services, in case there are any major incidents prior to the system being accepted into service at a location.

#### Recommendation 23A

We request that Transport for London provide us with further details of its plans to improve communications with passengers trapped in trains for any period of time ahead of their evacuation, by 31 October 2007. This should include plans for communication with people who are deaf or hard of hearing, and those who are blind or partially sighted.

There is little from a TfL/LU perspective that we can add to our previous response.

All LU stations have portable hand held loudhailers as part of their emergency equipment, which can be used if there is a problem with the train public address system, or to communicate with customers in tunnels e.g. if they need to walk from the train.

With regards to communication with deaf / hearing impaired customers, this would currently need to be delivered in person by LU or emergency services staff. In the longer term, new rolling stock to be introduced as part of the upgrading of the network will incorporate visual displays that complement audible announcements in such circumstances.

All LU operational staff receive regular training designed to ensure they understand the needs of deaf / hearing impaired and blind or partially sighted customers. LU's Accessibility & Inclusion team are in the process of a public consultation regarding accessibility. Part of this will involve in depth research with user groups to determine the best ways of communication during emergency situations.

#### Recommendation 24A

RMT wrote to us to suggest, in the long term, the installation of emergency lighting strips in train carriages, similar to those installed on passenger aircraft. We recommend that Transport for London consider this proposal and tell us the outcome by 31 October 2007.

As stated in previous responses to the Committee, we have conducted a thorough review of all emergency equipment on trains.

Tube rolling stock already has emergency lighting which works in the event of power loss and has two independent battery power supplies. However, it is dependent on being able to withstand the effects of a bomb blast which is very likely to cause damage to cables and bulbs (as happened on 7 July 2005).

We are not aware of any form of emergency lighting strip on the market that could be guaranteed to be more resistant than the existing provision.

Refurbished and future rolling stock design have end car windows and open doorways that allow extra light to shine through from adjacent carriages.

#### Recommendation 27A

We welcome the installation of emergency notices on Underground trains. We recommend that Transport for London conduct research to assess the impact of these notices on passengers' awareness of the basic messages contained in the notices, and on that basis consider whether any further work is necessary. We request that Transport for London provide us with an update on this work by 31 October 2007.

Following the completion of the roll-out of these notices earlier this year, we plan to conduct such research early next year.



## London Ambulance Service NIS

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30 October 2007

#### Dear Mr Barnes

Thank you for the opportunity to provide further information to the Committee on the issues identified as outstanding in the August 2007 'follow up' report.

The attached document addresses the issues around the implementation of Airwave within the London Ambulance Service, and also reports on back-up communications systems in place. Finally, the issue of communication between the emergency services at the start of a major incident is addressed.

I hope this additional information assists the Committee with its scrutiny process. I shall be pleased to update you on further progress, if required, at your review meeting in November 2007.

Yours sincerely

Martin Flaherty

Director of Operations





# **Update to the London Assembly**7 July Review Committee Report

30 October 2007

This document updates the LAS response to the London Assembly recommendations following the bombings of 7 July 2005. Specifically it addresses the additional recommendations from the August 2007 follow-up report.

#### 1. Recommendation 5B

#### Recommendation 5B

We request that the London Ambulance Service and the London Fire and Emergency Planning Authority provide a comprehensive update on the rollout of digital radios within their services, including information about any difficulties that have been encountered and how they are being addressed, by 31 October 2007. We request that these reports include an account of what has been done to share lessons across the emergency services in London so as to minimize the recurrence of the same problems in different services.

- 1.1 The Airwave project has been progressing well towards the objective of achieving full operational use by the end of September 2008. However, two weeks ago the Department of Health project team announced that the implementation of the ICCS (touch screen radio control system) has been paused for all Ambulance control rooms across the country. The pause has been put in place to assess and address various instability issues experienced in the first few systems installed.
- 1.2 The DH made it clear that the programme is not stopping and that project resources will continue at current levels. The London Ambulance Service project will continue with activities such as network testing and implementation, vehicle installations, creation of working practices, support processes, training packages etc. However, without the installation of the ICCS, the Service will not be able to bring the system live in 'front line' A&E ambulances.
- 1.3 At this time it is not possible to provide any estimate of the impact in terms of delay on the LAS project. It would be reasonable however to assume that completion by September 2008 is looking less likely.
- 1.4 The emergency services across London and Airwave meet on a regular basis (under the chair of the Metropolitan Police Service) to discuss inter-agency issues. This forum is attended by London Ambulance Service technical, project, and emergency preparedness staff. At these meetings lessons are shared and we have been able to access debrief and lessons-learned type reports from each other. As an example, through this forum our Airwave 'traffic' information related to Notting Hill Carnival was shared with the Metropolitan Police Service, who in turn provided the Service with access to their report regarding the difficulties with Airwave at the event.
- 1.5 The Service implementation project staff have met with Metropolitan Police and London Fire a number of times during the project on specific matters and have established relationships and informal sharing of lessons learned. In the initial stages

of the risk management process the Metropolitan Police were invited to attend a workshop to identify risks to the project.

1.6 The Committee is reminded that all London Ambulance Service operational vehicles are fitted with Mobile Data Terminals that use the GPRS data system (proved very resilient on 7/7) and do not rely on radio communication alone. Additionally, officers managing incidents already have the use of Airwave radios provided as an interim solution, pending the full roll-out.

#### 2. Recommendation 6A

#### Recommendation 6A

We remain concerned about the need for a range of effective back-up systems for use in the event of a breakdown in digital communications. We request that the emergency services provide us with a report by 31 October 2007 outlining what measures are in place to provide such back-up systems. We request that these reports include evidence of serious consideration of alternative back-up communications technologies, as well as details of what is being done within existing communications systems to maximize their resilience.

The London Ambulance Service has a diverse range of back-up communication systems, in the event that digital communication does not work. These have been discussed in previous reports to the committee and are summarised below:

- 2.1 Mobile Data Terminals each ambulance is equipped with a computer terminal which is used to pass 999 calls to the crew and to acknowledge receipt of the call. This device can also be used to pass written messages to crews. It is the primary means of dispatching ambulances to incidents, including major incidents and communicating with operational crews in their ambulances. This technology proved resilient on 7 July 2005.
- **2.2 VHF Radios** each ambulance and officer's car is equipped with a VHF radio. These have been the main means of verbal communication for many years.
- **2.3 UHF Radios** Duty Managers carry banks of UHF radios for use as command communications at the scene of an incident. These have proved reliable over many years.
- 2.4 Pagers All operational managers carry a pager. The emergency control room can communicate en-masse or individually with officers managing a major incident.
- 2.5 Mobile 'Phones each officer and crew member has a mobile 'phone.
- **2.6** Satellite 'Phones As a final fall-back, satellite 'phones would be used to communicate between the Service and other agencies and with officers operating at a major incident.

2.7 'Runners' – In the event of a failure of all electronic communications systems, the Service operates a system of motorbike and cycle 'runners' who rotate between the incident, the command centre and the hospitals, passing information.

#### 3. Recommendation 12A

#### Recommendation 12A

We request that the emergency services provide us with evidence by 31 October 2007 that there has been full consideration of the potential for improving communications between the emergency services during the first minutes following declaration by one service of a major incident, whether by reviewing the protocols for declaring a major incident, or by improving the speed and efficiency with which the emergency services inform each other of major incidents.

3.1 The process for declaration of a major incident has been reviewed and is included in the new version of the London Emergency Services Liaison Panel 'Major Incident Procedure Manual'. Edition seven of this document was issued in 2007 and contains the following paragraph at section 2.2.2 which we consider reflects best practice:

"Despite the fact that what is a major incident to one of the emergency services may not be so to another, each of the other emergency services will attend with an appropriate pre-determined response. This is so even if they are to be employed in a stand-by capacity and not directly involved in the incident."

3.2 It is established practice that each emergency service advises the other services immediately that a major incident is declared. Typically this happens at the scene, as well as between the control centres.

Martin Flaherty Director of Operations

30 October 2007

Mr Richard Barnes Chairman 7 July Review Committee City Hall The Queen's Walk London SE1 2AA

31 October 2007

Dear Mr Barnes

### <u>London Assembly 7 July Review Committee Volume 4: Follow Up Report:</u> <u>Response From The National Policing Improvement Agency</u>

- 1. This letter contains the response of the National Policing Improvement Agency (NPIA) with regard to comments and observations on the Airwave service. The NPIA has the responsibility for the provision of this service to all police forces in England, Wales and Scotland through a contract with Airwave Solutions Limited.
- 2. The NPIA was asked to report back directly to the Assembly on one recommendation, 5A. We understand that the Metropolitan Police Service (MPS) and Airwave Solutions have also made independent responses.

### Recommendation 5A: For the National Policing Improvement Agency (and others) to provide a report on the roll-out of Airwave.

 $O_2$  Airwave (now Airwave Solutions) was responsible for the roll-out of the Airwave service to all forces. Airwave was responsible for the procurement of switches, the base stations and the network connections that provided the switches. Individual forces were responsible for the procurement of terminals and the purchase and integration of control room software.

Airwave was to be rolled-out on a force-by-force basis in accordance with a sequence and timetable set out in the framework contract. When the infrastructure for each force was complete and configured for the Airwave service a comprehensive series of tests to prove contracted service availability was undertaken. The two most critical tests for forces were the Force Level Acceptance Test, that proved functionality, and the Coverage Test that proved the quality and strength of radio coverage. Members of the PITO (now NPIA) Programme engineering team were present to assist the forces during the tests at each of these stages and to recommend service acceptance or otherwise. Once the tests had been satisfactorily completed the force would sign a Ready For Service (RFS) acceptance document that would commit them to the Airwave service for a 15 year

period. After RFS acceptance the force would then migrate from its old radio system across to Airwave.

The first force to reach RFS was Lancashire, the pilot force, on 21 September 2001 followed by Greater Manchester a week later. By March 2002, five forces had passed the RFS milestone, well below the contracted level. The delay was due to a combination of restrictions on access to base stations as a result of foot and mouth, difficulties in acquiring planning permission for radio sites in many force areas and the emerging need to revise the radio coverage test. During autumn 2002, Airwave held extensive discussions with PITO (now NPIA) and agreed the principles of an aggressive implementation plan designed to being the programme back on track. This programme, known as Crest, was agreed by the Airwave Programme Board and endorsed at a special meeting of ACPO, ACPOS and police authorities in January 2003. As a result of this programme 26 forces reached RFS during the 2003/2004 Financial Year. Northern was the last force to reach RFS in May 2005. This was within the original programme completion date set out in the framework contract.

The NPIA has fully supported the MPS throughout its migration to Airwave and transition to in-life service. The NPIA have had representation at service, technical, special event and planning reviews, and at Silver Group meetings. The NPIA has also established a Pan-London forum that brings together the MPS, London Ambulance, London Fire, BTP and other major stakeholders for the purpose of joined up planning and management of special events, upgrades and service performance in London. NPIA is also an integral part of a new senior level Airwave Strategy Group that has been established to pave the future of Airwave in the MPS

3. There were a number of references made in the report to Airwave where other organisations, but not NPIA, were asked for a direct response but where we feel that additional information might be of value to the Assembly.

### Recommendation 4A: Update from Transport from London on the roll-out of CONNECT and Airwave.

The report states that the ALU contract was signed in December 2006 and it is expected that Airwave will be operational underground on all lines by August 2008, and the source of this information is Report 9 to the Metropolitan Police Authority 25 January 2007, C3i/Airwave programme update, paragraph 31.

The ALU contract was signed on 30 January 2007 with a target completion date of March 2009. Three stations have been implemented on the East London Line and the next batch of 10 stations on the Victoria and District

Lines is in the process of implementation and testing. The project is currently focused on improving the contractual delivery target hence the reference to August 2008 in Report 9.

The roll-out is not being carried out on a line-by-line basis as originally planned but groups of stations are being worked on in batches. This provides greater flexibility for the suppliers who can circumvent problem areas without delaying the numbers of stations being implemented.

A programme of User Assurance testing is being conducted to test that coverage is obtained in those areas needed by the police and emergency services, and this is supported by selective coverage tests conducted by a third party which measures coverage throughout the selected stations. No areas have currently been identified where Airwave does not work.

Recommendation 6a: Report from the emergency services for backup systems for use in the event of a breakdown in digital communications.

#### Cluster Hot Standby (CHS)

The Airwave service has been enhanced by a £185 million investment, so that every switch in the Airwave network (currently seven nationally) is duplicated by a 'hot standby' switch and kept fully configured on a 24 hour, 365 day basis.

In the event of a serious failure on any cluster (either technical or malicious) that supports the Airwave service there is a second "hot-standby" cluster that will be cut over into service. During tests it has been demonstrated that it would take less than five minutes to return voice services to the cluster in the event of such a major failure.

The CHS service is also used during major network upgrades to reduce service impact to forces and to maximise Airwave service availability. This service has been available to the MPS since October 2006.

#### Ground Based Network Resilience (GBNR)

GBNR improves the availability of the base sites that provide the coverage required by the emergency service radio users. GBNR will provide an enhanced level of guaranteed resilient coverage across London which will reduce instances of service loss due to failures in the existing ground based network. Around a third of all sites nationally will be GBNR sites, providing at least vehicle based coverage across the country with resilient hand portable coverage for additional specified cities (3km radius) and airports.

The new resilient network provides dual routing which means service loss will only occur if two concurrent failures exist. This service is due for delivery in London in 2008.

#### Emergency Response Vehicles (ERV)

Airwave should be operational within all the deep sections of the London Underground during 2008 allowing radio communication between users both above and below ground. In addition, seven Emergency Response Vehicles (ERV) are already available to provide Airwave communications underground at short notice. They work by accessing the Airwave signal above ground and then re-transmitting it via a special cable to provide radio coverage inside tunnels. They are built to provide communications in difficult underground conditions. The NPIA is working with Airwave and the MPS to determine how these vehicles can be used to support other policing operational requirements.

#### <u>Temporary coverage and mobile base stations:</u>

Available to all police users through Airwave are a number of mobile based solutions that can be deployed quickly. These solutions are designed to support policing operations during either a planned special event or major incident, where extra coverage and /or capacity is required. The solutions are:

- Two 'pod' units, which have an Enhanced Base Transceiver Station (EBTS) and stand alone generator. - A vehicle or a helicopter can deliver these units.
- Two 15 metre mobile cells complete with an EBTS and generator.
- Nationally Airwave has available two 28 metre mobile cells and two 15 metre mobile cells each with EBTS and generators.
- 4. A number of comments on Airwave were made in Section 5 (Digital radios within the emergency service) of the report where we feel some of the issues required would benefit from clarification:

"There are lessons to be learnt about the procurement of Airwave nationally, including the technical provisions and management of the contracts. In hindsight the contracts could have been better managed."

The Airwave contract (previously known as the Public Safety Radio Communications Project, PSRCP) was signed in February 2000 not 2002. A Service Performance Specification was written following an extensive consultation with police users on requirements. These requirements drove the technical design of the Airwave service.

The National Audit Office produced a report on the procurement of Airwave in April 2002 (HC 730 11/04/02) and found the procurement satisfactory.

The procurement of terminals for use with Airwave was entirely a matter between the MPS and their suppliers. Under the Airwave contract it is the responsibility of police authorities to decide on the make of terminal that they wish to use and then to procure them. Terminal procurement was deliberately excluded from the Airwave contract in order to encourage price competition and feature innovation between suppliers.

"We were surprised to learn that the national contract for Airwave for police forces only extended to open air coverage, given that a significant proportion of police activities take place within vehicles and buildings."

Airwave is contracted to provide coverage to vehicles and hand portable radios, where there is a clear view of the sky. This reflects the user requirement for Airwave that was based upon extensive consultation.

Although the Airwave network is not designed to guarantee coverage to hand portables in a vehicle it often provides a useable service in this environment. However, a vehicle body can inhibit Radio Frequency (RF) signals which can result in a full or partial loss of service on occasion. It is for this reason that all in-vehicle communications should be carried out using the vehicle radio set. This is no different to analogue radio systems. Handheld radios should not be used in vehicles because of the risk of interference with electrical systems including braking systems.

In-building coverage is not guaranteed under the Airwave contract. This is because every building is different making it extremely difficult to predict whether radio signals will penetrate the exterior. Specifying high signal levels outside by way of an uplift, can increase the probability of in-building penetration. The Airwave service is designed to be strong enough to provide handheld coverage across the whole of a force area and this plus a large number of additional signal strength upgrades for specified circles of coverage increases the probability of in-building penetration

All forces can purchase special coverage enhancements that will provide guaranteed additional in-building coverage in areas such as shopping centres or car parks. Additionally, further enhancement to the special coverage portfolio are being developed Airwave with the support of the NPIA.

"We were also surprised to learn that coverage on the London Underground was not included in the original national plans and business case for Airwave radios, 22 and that the issue was only considered well into the

process of implementing Airwave within the MPS. The MPS (which is not responsible for Underground radio communications) lobbied the Government to take action to put in place radio communications on the Underground."

The main Airwave network was only designed to provide coverage above ground. In practice it provides coverage on Underground railway lines which are above ground and intermittent coverage on sections of track which are below street level but open to the sky.

Extension to underground was not in the scope of the original programme for both technical and commercial reasons. The British Transport Police were allowed to make use of part of London Underground's own analogue radio network. for their below ground operations, and had a small control room under St James' Park station, but no other police force had access to a working radio network underground.

In 1999 LUL began the Connect project to install a new TETRA (the international radio standard on which the Airwave service is based) radio system for their own communications. PITO (now NPIA) began to explore the possibility of working with Connect and LUL to extend Airwave into the Underground, but at the same time investigated a number of other technical solutions which might possibly meet the user requirements which BTP, the MPS and the City of London Police jointly had jointly drawn up. One option included the installation of a complete new infrastructure, which were dismissed as unaffordable at over £550 million. The other alternative was the encryption of the complete Connect radio system to bring it up to Airwave standard, which was rejected as it was too complex a change to LUL's requirements and would compromise the security accreditation for the police.

It was decided that the best technical option was to piggy-back Airwave onto the Connect system, using spare spaces in Connect equipment racks and the tried and tested system of leaky feeders – radiating cables – to take radio signals along the underground tracks. In this way radio coverage could be provided to nearly all the stations and locations where it was needed

A contract for the provision of the Airwave service in the deep sections of the London Underground was signed on 30 January 2007 with a target completion date of March 2009. In the interim, seven Emergency Response Vehicles (ERV) are already available to provide Airwave communications underground at short notice. They work by accessing the Airwave signal above ground and then re-transmitting it via a special cable to provide radio coverage inside tunnels. They are built to provide communications in difficult underground conditions.

"There have been problems in enabling officers to talk across Airwave zones and 'talkgroups'."

"The MPS has told us that, 'strict adherence to talkgroup management policies will be essential to allow us to make the best use of the Airwave capacity available to us'."

"In the meantime, the MPS has told us that it is having to place 'restrictions on patching talkgroups together which represents a degradation in our ability to communicate between pan London units, local units and Central Communications Command during a critical inciden'"

The functionality enabling a dispatcher to link talkgroups together was achieved at an early stage of the Airwave roll-out, however, problems were experienced as soon as attempts were made to link talkgroups across zones.

The limitation arises when talkgroups homed on different zones are patched together. When an emergency is generated by a user on one of the constituent talkgroups, only the users in that talkgroup are alerted. If at the time of the activation there is traffic upon one of the other constituent talkgroups, those users do not receive an alarm indication and the voice transmission of the person generating the emergency does not transmit. This potentially could lead to an emergency being missed by part of the group that have been patched together.

The police service and NPIA are aware of the deficiencies of the functionality as provided for linking talkgroups, and both parties have been actively seeking rectification of this shortfall in service delivery. Forces have adapted their business procedures accordingly to mitigate the operational risk.

A partial solution to this issue will become available on the Airwave network in 2008. The full solution is being developed and controlled by an NPIA project team and is scheduled for implementation in 2009.

There are also capacity issues arising from increases in the number of police officers within the MPS. As a result, the MPS has to arrange temporary capacity at additional cost for events such as the Notting Hill Carnival. It is also 'imposing some restrictions on the non-essential use of talkgroups and the use of Airwave telephony in order to reduce the likelihood of officers finding an operationally critical talkgroup busy'.28 A number of critical upgrades due to take place in September 2007 will 'mitigate most of the current MPS concerns'.

While it is true that the policing and security environment has changed significantly since contract signature in 2000 Airwave capacity is constantly reviewed to ensure that the system is capable of meeting the needs of users. As part of this process additional capacity was provided in London on a staged basis to meet increased operational requirements. The first batch of sites identified as requiring capacity upgrades were completed in September 2007.

The review of capacity is an iterative process that occurs across the Airwave network to ensure that all users have the grade of service that is required for effective and efficient policing.

Airwave, the MPS and NPIA continue to review capacity requirements in London, and there is currently a longer term plan being developed. This plan involves technical solutions to increase the number of base stations in London through sectorisation. This approach will allow more efficient use of frequencies and allow increased capacity in areas that require it.

"Other problems experienced during the roll-out of Airwave within the Metropolitan Police Service have included software issues such as radios unexpectedly resetting themselves and backlight functions not working properly; failure of the emergency activation function resulting from incorrect activation or being out of coverage when the button is pressed; hardware issues including limitations in battery life; and difficulties in achieving the appropriate level of training amongst officers using the new radios."

Terminal issues are a matter between MPS and their suppliers. However, the NPIA does support forces on generic terminal issues and sits on the TOPS (Terminal and Other Periphery Suppliers) forum. NPIA is actively involved in developing improvements to terminals in order for them to function efficiently with the Airwave network.

The NPIA training team provided guidance to all forces on training issues, and a full training plan was issued for the use of Airwave. However, the final training plan delivered to officers was a matter for forces to decide based upon that guidance.

5. We also thought that it might be useful if we provided the Assembly with a summary of the benefits that the Airwave service provides to policing throughout the UK should these be required for reference purposes.

6. We would be delighted to answer any questions that the Assembly or its staff might have following this response. In the first instance they should be sent to <a href="main@npia.pnn.police.uk">peter.main@npia.pnn.police.uk</a>

Yours sincerely

Peter Neyroud QPM

Chief Constable

Chief Executive, NPIA

#### **ANNEX A**

#### **Airwave Benefits Summary**

Airwave was developed to provide a single modern digital national mobile communications service to police forces in England, Wales and Scotland. It delivers significant communication improvements over the many analogue systems previously in use, providing facilities for telephony and text messaging, in addition to improvements such as a common technical standard, encryption, guaranteed coverage and improved officer safety features.

It also provides the police service with opportunity to adopt new working methods, both within force and across force boundaries.

#### Improved communications between policing units

The majority of forces previously utilised at least two separate systems before the implementation of Airwave, UHF and VHF. In many forces additional systems were also used for specialist groups, however, these systems were often incompatible thus impeding interoperability between individual police units, areas and other agencies. Airwave provides a single tier communications platform throughout a force, which provides the capability for improved radio communications between different operational units.

#### Improved interoperability between forces

Interoperability is the ability of police forces to talk to one another or to other safety organisations via radio. The ability for forces to interoperate has led to more efficient organisation of cross-boundary disasters, cross-boundary co-operation (such as managing royal visits) and mutual aid. Further impetus has been given by other government agencies joining the Airwave service, particularly fire and ambulance.

Work is currently taking place to manage the implementation of interoperability arrangements within the police service and for co-ordinating complementary work with other agencies. Activities well on the way to completion include the rationalisation of force fleet maps, the subsequent national implementation of interoperability talk groups, and the development and implementation of the processes and procedures necessary for successful operation.

#### Improved security

Airwave currently operates a high level of security, providing police officers with the secure communications they need. Encrypted air

transmissions have eliminated criminal scanning of police communications. In addition, Airwave software automatically authenticates any device attempting to use the network.

Improved terminal management at force level, including personal issue and rigorous procedures for reporting lost or stolen terminals, has greatly reduced risk of an authorised Airwave terminal falling into the wrong hands. A lost or stolen terminal can be temporarily disabled and if the terminal cannot be retrieved its authentication on the network can be cancelled.

#### Improved capacity management

The Airwave network has much greater capacity than was available on previous radio systems. Trunked configuration of the system allows the use of available capacity in a more efficient way and has removed the geographical constraints on communications that existed on previous systems. The use of capacity on each base station is closely monitored to ensure the service provided meets the contracted service levels. If traffic levels consistently rise over time Airwave may be required to increase the capacity at individual sites in order to maintain the capacity headroom of 20 per cent specified in the contract. For planned events, forces are able to purchase extra capacity from Airwave to meet the expected increase in demand on the system. This level of flexibility was used at the G8 Conference in Scotland two years ago and during the recent serial murder incident in Suffolk when other forces seconded significant people numbers to the force under mutual aid arrangements.

#### Improved coverage

Forces are receiving much improved coverage levels including coverage in areas where historically radio coverage was unavailable, thus resulting in increased officer confidence, safety and effectiveness. All major and minor roads in England, Wales and Scotland have guaranteed Airwave coverage. Forces are also able to purchase coverage enhancements that will provide additional in-building coverage. Forces experience a high level of probability of incidental in-building penetration in areas of uplifted coverage levels.

#### Improved regional and national roaming

The delivery of a national network allows Airwave users to travel anywhere in the UK and still maintain communications with home talk groups, especially useful for non-geographic forces and agencies such as British Transport Police and SOCA. This is something that was not achievable with the majority of previous handheld systems where officers had to stay within the geographical limits to maintain communications with their home channel.

#### Better management information

Airwave provides a number of features to commanders and the control room allowing more efficient use of resources. An important feature delivered by Airwave is the ability to see who is transmitting as each Airwave terminal has a unique identifier that can be linked with the established force collar numbers. This feature was not available on the majority of previous systems.

Forces are provided with full sets of call data that includes information on talk group, point-to-point, telephony and capacity usage. The data provides forces with the capability to analyse working practices and identify potential areas for process improvements that can lead to efficiency and cash savings – something that was simply not possible with the old analogue systems.

#### Improved officer safety

The use of an emergency button (that gives immediate priority to a police officer in need of assistance together) with encrypted air transmissions and improved coverage levels has led to improved officer confidence and safety. Previously, in some areas the poor quality of communication provided by forces' radio systems was a potential threat to officer safety.

#### Higher degree of standardisation

The implementation of Airwave has provided police forces in the UK with a national standardised communications system. The network infrastructure all around the country works to the same standard, and all terminals and other linked equipment are designed to a standard specification.

The delivery of a national communications system has enabled the development of national best practice guidelines for police communications. National protocols have been developed for interworking between police forces and national best practice guidelines for the use of Airwaye have been established.

#### Fallback and Resilience

The Airwave service has been enhanced so that every switch in the site is duplicated and kept fully configured. In the event of a full or partial switch failure the duplicate site can be brought on stream with immediate effect and service is restored within several minutes. This is a world class feature of the Airwave service.

The availability of the Airwave service is being improved further through changes to the ground based network. Over one third of the base station sites that provide the Airwave service are being grouped into some 160 rings and the base stations within each ring linked together by microwave.

#### Other applications

Airwave provides the capability for direct access to the Police National Computer from radio terminals without the involvement of the control room.

Airwave is also able to support Automatic Vehicle Location Systems (AVLS). This application uses Global Positioning Satellite (GPS) technology to provide constant updates of the exact geographical location of police vehicles to the control room. Without AVLS the control room is only able to access information on the last job a vehicle attended and its current status. The efficiency of resource allocation improves significantly with AVLS, allowing control room to choose resources by geographical location and not just the status of the resource.

Automatic Person Location System (APLS) is very similar to AVLS, with GPS technology built into handheld terminals. As well as improving resource allocation, when APLS is used in conjunction with the emergency button, it can improve officer safety as the exact geographical position of the officer will be available.

Airwave can also act as a bearer for some mobile information services such status messaging.

NPIA Airwave 30 Oct. 07



### RESPONSE TO THE GREATER LONDON AUTHORITY'S (GLA) 7 JULY REVIEW COMMITTEE FOLLOW-UP REPORT

#### TerreStar Global

#### INTRODUCTION

The July 7 Review Committee should be congratulated for the effort it has expended on the issue of communication in disaster response situations. The follow-up report shows that not only is the Committee putting forward some excellent recommendations, but it is also conscientiously pursuing them and keeping the protection of the public uppermost in its mind. TerreStar Global Limited (TSG) respectfully offers new information on emerging network technologies for consideration in the context of the concerns expressed in the follow-up report. TerreStar Global offers network technologies which complement and enhance existing equipment providing interoperability between different voice services, an ability to create closed user groups (talkgroups) in real time, and the real-time prioritisation of emergency calls.

TerreStar Global thanks the Greater London Authority for this opportunity to comment.

#### **BACKGROUND**

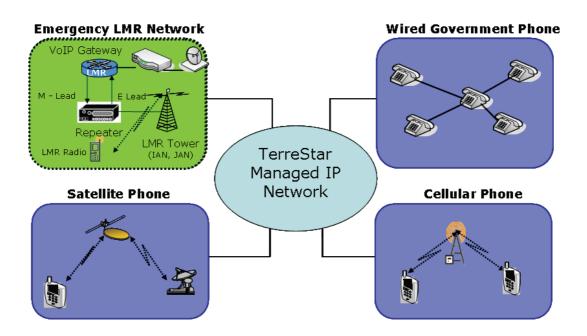
The 2 GHz frequency band is allocated to mobile satellite services (MSS) on a global basis at an International Telecommunications Union (ITU) level. The EC is currently finalising a process which will assign the licenses for the 2 GHz spectrum on a pan-European level for MSS with a Complementary Ground Component (CGC). The fact that the EC is leading this process means that the successful applicants will not have to apply to each individual regulator for a spectrum licence. Instead each Member State will be obliged to allow the successful applicants access to the spectrum within their jurisdiction.

The allocation of spectrum in this manner carries important benefits for Public Protection and Disaster Relief (PPDR) services. The EC has seen this opportunity and has made PPDR one of the public policy objectives of the allocation, something which TSG believes is a very positive step. TSG is the only company applying for allocation of this spectrum which plans to provide a two-way communications solution. It is therefore the only applicant in a position to fulfil the PPDR public policy objective. There are other advantages as the terrestrial component of the network architecture maximises spectrum efficiency enabling the maximum potential number of users at any given time, while adding economies of scale not available to historic MSS services and enabling chipset and handset developers to realise costs similar to today's cellular phones.



Licenses have already been assigned to TSG's sister company, TerreStar Networks, for PPDR services in the United States of America and Canada, and TSG plans to build on this experience to maximise the service they can offer to the emergency services.

This is the background to TSG's plans to develop, build and operate an all IP-based integrated satellite and complementary ground component mobile communications network in Europe.



#### **INTEROPERABLILTY**

A vital element of any new system is its ability to interoperate with existing PPDR communications networks. The IP network provided by TerreStar will interlink seamlessly with existing communications solutions such as TETRA and 3G/GSM. TerreStar is currently working towards creating a chip set to enable a single user terminal the flexibility to operate on either the 2 GHz MSS/CGC spectrum or the UHF TETRA spectrum. Thus within existing TETRA networks the handset will work with the same functionality as a TETRA-only handset, but when the user moves the handset outside the range of the TETRA network, or when natural or man made disasters have disabled the TETRA network, the handset can quickly switch to using the TETRA network, but connecting via the MSS/CGC network. This allows MSS/CGC to operate as a complementary service with existing TETRA operators, providing extra coverage, extra capacity, and the ability to work as a back up in even the most destructive disaster situations due to the disaster resilient nature of the space component. This will greatly improve the service that can be provided for



emergency responders, increasing connectivity and making sure that channels of communication are open at all times. TerreStar is also working on the same interoperability with 3G/GSM, designing a chipset that can use the MSS/CGC and 3G/GSM networks. This will allow users to switch between the 3G/GSM network and the MSS/CGC network as and when necessary. This will be invaluable in situations which require constant communication with governmental officials, but where the relevant governmental officials may not have an MSS/CGC or a TETRA handset.

#### **COMPLEMENTARY COMPARED TO OTHER SERVICES**

The roll out of Airwave handsets across the emergency services is a major step forward in improving communication between emergency responders. The TSG network will overlay the Airwave network to help improve the quality of service throughout London.

The Committee's concerns over the coverage provided by the Airwave network will be greatly alleviated by the complementary use of the TSG network. With the CGC network deployed throughout London, TSG will maximise coverage of London at street level and within buildings. The TSG network will not only have the ability to operate closed user groups (talkgroups), but also have the added ability to create and move between talkgroups in real-time.

In the result of a catastrophic disaster and the destruction of all terrestrial communications, the disaster resilience of the satellite will allow the TerreStar network to continue operating. Working together with the existing emergency communication infrastructure, TSG will be able to integrate its network with the pan-London emergency communications network to help provide the system that Londoners deserve.

We agree with the Committee's view that London's emergency services should not rely on a single source for their emergency communications. TSG's solution is tailor-made to act as a back-up service: satellite coverage is by its nature both ubiquitous and disaster resilient. TSG's network will ensure emergency service personnel have access to the robust and effective communications systems they need.

#### PRIORITISATION OF EMERGENCY CALLS

TSG, while providing pan-European coverage, can also limit the number of calls made in a particular area. Instead of the crude ACCOLC system, TSG will provide IP prioritisation that will allow a more discriminating method of selecting which users can access the network. TSG's satellite is also specifically designed to facilitate 'demand assigned' spectrum, increasing capacity in a region where there is a disaster situation by focusing more power on the region that requires it. This can all happen without affecting GSM and 3G users because they operate on a different set of frequencies from the TSG network.



#### CONCLUSION

TSG believes that the solution for communication across London in disaster situations is best met through co-operation between a number of different solutions. TSG can act as a complementary service to Airwave, providing connectivity where Airwave cannot and working as the 'safety net' system that the Committee rightly recognises is important to provide the reliable communications that Londoners need. We hope that our views will be taken into account and look forward to hearing the results of the review in November 2007.



# London Assembly 7 July Review Committee Report – Metropolitan Police Service Progress - 31<sup>st</sup> October 2007

#### Introduction

This paper sets out the progress that has been made by the MPS in relation to the recommendations made by the London Assembly 7 July Review Committee. Information has been gathered from the relevant business groups within the Service.

### Digital radios within the emergency services

5. We recommend that the Metropolitan Police Service, London Fire Brigade and London Ambulance Service provide us with an update on the rollout of digital radio systems within their services in November 2006, May 2007 and November 2007, so that we can monitor progress towards full implementation of TETRA-based radio communications across London's emergency services.

Implemented, but outstanding concerns

#### Recommendation 5A

We request that the National Policing Improvement Agency, Airwave providers and the Metropolitan Police Service provide us with a comprehensive report on the rollout of Airwave by 31 October 2007.

#### MPS Update

Implementation for the MPS was completed in mid-September with the transition of the last two Borough Operational Command Units. Work on the covert project has been handled separately and is due for completion in 2008.

Airwave has been in use in the MPS for several years. The Borough rollout was delayed, for reasons unrelated to Airwave Solutions Ltd.

The final London Boroughs transitioned into CCC, and onto the Airwave system on September 18 2007. This was the final stage of a carefully planned and phase rollout of Airwave.

#### 1. Planning ahead for transition

Like all technical services used by the MPS, the Airwave system is subject to a careful and rigorous monitoring and maintenance programme. Operational officers were fully involved in the development of the system and the system will continue to be closely monitored throughout the life of the contract.

The MPS conducted a full programme of technical coverage testing before 'go live', supported by additional local feedback:

- Final checking was done in each borough before transition to Airwave. This
  helped to ensure that the system worked prior to use
- The MPS ran a comprehensive programme of monitoring and evaluation throughout implementation and use. This comprises:
  - o Pre-installation assessment
  - o System coverage mapping
  - o Training and user information
  - o In-service assessment
  - o Exception reporting
  - o Formal fault reporting
  - o Business continuity testing.
- Prior to 'go-live' in each Borough, there was a detailed survey of all boroughs to establish what, if any, additional support is needed. Based on officer feedback to date, the MPS is reviewing locations that present greater technical challenges (such as complex geography) to provide additional reassurance to officers.

The MPS signed up for Airwave as part of a larger change programme. While the MPS transitioned to Airwave, users were required to carry both MetRadio and Airwave handsets to ensure continuity of communication between Airwave-live and non-Airwave Boroughs. Transition to Airwave-only will be at the discretion of B/OCU commanders, prior to the planned switch-off of MetRadio in the first part of 2008.

#### 2. Performance monitoring during implementation and rollout

There is a detailed and formal fault reporting and resolution process in place and each report is analysed and reported on to the correct supplier and up through the MPS governance structure as appropriate. There are a range of more general issues raised by the Assembly's Report, and the Assembly will wish to note these issues are kept under close scrutiny within a well-established MPS governance structure.

#### (i) In-vehicle coverage

The Review Committee will wish to note that the MPS equips all operational vehicles with higher power hands free vehicle sets with an aerial on the roof, which are more effective than the usual handset when used in a vehicle. Any hand-held coverage while in a vehicle is incidental. In addition, drivers should not use their hand-held sets while driving.

#### (ii) In-building coverage

The MPS is the only constabulary in the UK that is carrying out detailed intelligence-led surveys of non-police buildings to identify where we need service above the national contractual agreement. This is currently ongoing, and boroughs across London, suppliers and Police representatives are directly involved. The aim of the site surveys is to identify appropriate solutions and provide costed options. The survey work will be complete by November 2007 with the first installation to a non-police building shortly afterwards.

#### (iii) Reports of 'poor coverage'

No communications system can guarantee 100% coverage. MetRadio was unable to do that. Airwave Solutions Ltd are contracted to provide a specific level of coverage: in the MPS area, it is generally meeting or exceeding agreed contractual standards. To ensure coverage meets operational needs, the contract requires that a programme of testing begin before the system is used and additional testing and monitoring continue throughout implementation and usage. Airwave has an 'advance warning' facility to alert the user if coverage is likely to be impaired, so risk assessments can be improved. MetRadio did not have this facility.

The following measures are in place in areas where coverage above contractual levels is known to be required:

- o There are 'special schemes' in place for known technically complicated areas, and these are part of the contract.
- o There is capacity to access additional support where required (i.e. for special events).
- o There is detailed analysis of all complex problems and challenging locations. After each borough transition, engineers are available to respond to any issues on a 24/7 call out basis.
- o Across the whole of the MPS, any new issues that arise are addressed at frequent meetings working to MPS senior management.

#### (iv) Major events and cross-Borough communication

All MPS talk groups fall into one of four Airwave 'home zones' set up across London. Patching talkgroups from different zones impacts the way the system manages emergency activations. Therefore, during cross-border, cross-zone incidents there is a potential for officer safety to be compromised if talk groups from two separate zones are patched together. This is an unplanned feature of the system, which PITO nationally are investigating.

The MPS is aware of this feature and have enhanced contingency-planning processes accordingly. If a situation arises where there is an operational need to link with a talk group outside the Borough, the officers are instructed to move to the same talkgroup by selecting the appropriate group on their hand/vehicle set.

We have worked with users, suppliers and partners to identify a range of enhancements. This includes handset upgrades changes to our processes and clarity on fault reporting and resolution. We continue to monitor and address issues with suppliers.

The MPS has applied substantial pressure on Airwave Solutions through the NPIA to ensure sufficient capacity is available for our unique events, such as the Tour de France, Notting Hill Carnival and at Wembley, which are managed at our Special Operations Facility.

#### (v) Capacity

The MPS operates a robust and comprehensive testing and fault reporting procedure. Where capacity issues could arise, or where monitoring processes reveal peaks of high activity, the MPS work with suppliers to identify suitable measures. Depending on the nature of the issue, appropriate action is taken: this can include promulgating best practice (i.e. Borough talkgroups not used while on Aid), installing additional capacity or 'renting' additional capacity for short term/localised requirements.

#### 3. Airwave related issues for the future

Airwave on the Underground is an NPIA project which has seen a lot of drive and commitment from the MPS. The MPS understand that the aim is for the coverage to be operationally acceptable once the project is complete. The number of talk-groups will be fewer than those available above ground, but at present, MPS are satisfied they will be sufficient to manage both 'business as usual' and major incidents.

Following extensive testing, Airwave radio came into use at Rotherhithe, Wapping and Shadwell stations on the East London line in July 2007, primarily for officers operating from the boroughs of North Southwark and Tower Hamlets.

In the interests of officer safely, officers have been given briefed as to the Airwave talk groups that they should use when using their radios on this section of the Underground. In addition, Airwave has been monitored at these locations on a daily basis.

### Personal Role Radios and other available technologies

6. We recommend that Transport for London conduct a feasibility study to assess the costs and effectiveness of Personal Role Radios and other available technologies to enable communications for emergency and transport services in underground stations and tunnels. We request that Transport for London provide an update on work in this area by the time of our follow-up review in November 2006.

Considered but not accepted

#### **Recommendation 6A**

We remain concerned about the need for effective back-up systems for use in the event of a breakdown in digital communications. We request that the emergency services provide us with a report by 31 October 2007 outlining what measures are in place to provide such back-up systems. We request that these reports include evidence of serious consideration of alternative back-up communications technologies, as well as details of what is being done within existing communications systems to maximise their resilience.

#### MPS update

Personal role radios effectively provide a limited, geographically localised, 'back-to-back' facility, which will allow restricted but useful communications if the networked radio system is not available. Airwave radio provides this function in DMO - Direct Mode Operation (as opposed to TMO - Trunked Mode Operation which is what we use normally). DMO works from radio to radio and does not require the network or infrastructure at all. Airwave was always intended to enable us to work with one radio set (replacing Metradio, VHF and Cougar). The MPS does not believe there is a necessity for an additional radio which, we feel, would not provide any significantly different functionality.

### Declaration of major incidents across the emergency services

12. We recommend that the London Resilience Forum review the protocols for declaring a major incident to ensure that, as soon as one of the emergency services declares a major incident, the others also put major incident procedures in place. This could increase the speed with which the emergency services establish what has happened and begin to enact a co-ordinated and effective emergency response.

Not accepted

#### **Recommendation 12A**

We request that the emergency services provide us with evidence by 31 October 2007 that there has been full consideration of the potential for improving communications between the emergency services during the first minutes following declaration by one service of a major incident, whether by reviewing the protocols for declaring a major incident or by improving the speed and efficiency with which the emergency services inform each other of major incidents.

#### MPS Update

The original recommendation, which was not accepted, differs from the required update. Communication between the emergency services is extremely good. There are direct lines between each control room, airwave and airwave interoperability has assisted.

#### **Establishment of survivor** reception centres at the sites of major incidents

28. We recommend that the London Resilience Forum identify a lead agency for the establishment of survivor reception centres at the sites of major incidents in the initial stages before handover to local authorities. We believe this task would most appropriately fall to the Metropolitan Police Service, which is already responsible for the collection of personal details of survivors.

29. We invite the London Resilience Forum to report back to us in November 2006 to tell us which agency will take the lead, and what plans have been put in place to ensure that survivor reception centres are set up close to the scene of any major incident in future.

reception areas for survivors close to the scene of a major incident as soon as possible after the event. We request that the Metropolitan Police Service provide us with details of what further work has been

done to identify a range of

potential solutions and how

31 October 2007.

emergency plans, training and

protocols have been revised, by

Further serious thought must be

services as to how to establish

**Recommendation 28A** 

given by the emergency

Issue acknowledged

but further work required

#### MPS Update

- 1) The London Emergency Services Liaison Panel (LESLP) Major Incident Procedures Manual has been updated to stress the importance of establishing reception centres.
- 2) There will always be a need for a dynamic response relevant to the circumstances and the location of the incident.
- 3) The Association of Chief Police Officers and the Department of Culture Media and Sport have prepared national non-statutory guidance on establishing reception centres. This first draft is been circulated for consultation.
- 4) The London Boroughs of Camden and Hillingdon are the lead and pilot Boroughs in developing London Plans.

#### **Casualty Bureau**

37. We request that the Metropolitan Police Service provide us with an update on the implementation of the new 'Casweb' Casualty Bureau technology, and any other measures that might be identified to manage the initial high volume of calls to a Casualty Bureau, in time for our follow-up review in November 2006.

#### **Recommendation 38A**

We recommend that the Metropolitan Police Service consider whether a website similar to the USA 'find our folks' website would be feasible and / or useful in the UK context.

Fully implemented

#### MPS Update

The original recommendation, which was fully implemented, differs from the required update. It is felt that at times of emergency, Family Assistance Centres and the use of the casweb (a national system) within each centre - together with one-to-one support that this offers, is the better solution.

41. We recommend that the MPS establish a process whereby advisory messages are explicitly time-limited, and updated on an hourly basis, even if there is no change in the basic advice.

#### Recommendation 41A

We request that the Metropolitan Police Service publish details of the outcome of its discussions with the Media Emergency Forum on the provision of time-limited statements in the hours following a major incident.

Accepted – further work required

#### No further update provided

44. We recommend that the Metropolitan Police Service, in consultation with the London Media Emergency Forum, produce a guidance document on the establishment and running of an effective media centre that meets the needs of the media. building on the lessons to be learnt from their experience on 7 July.

response

Incomplete

#### No further update provided

**Simon Lewis Chief Superintendent** 31st October 2007

#### **Recommendation 44A**

We recommend that the Metropolitan Police Service publish its revised plans for the establishment of a media centre, so that they can be discussed fully with media representatives.

This note further updates the London Fire Brigade response to the London Assembly recommendations following the bombings of 7 July 2005

# Report of the 7 July Review Committee Findings and Recommendations

#### Recommendation 5

We recommend that the Metropolitan Police Service, London Fire Brigade and London Ambulance Service provide us with an update on the rollout of digital radio systems within their services in November 2006, May 2007 and November 2007, so that we can monitor progress towards full implementation of TETRA-based radio communications across London's emergency services.

#### **Update from the London Fire and Emergency Planning Authority**

As previously reported to the Committee, the London Fire and Emergency Planning Authority in fully engaged in the national Firelink project, led by the Department of Communities and Local Government.

The roll out of Airwave terminals to LFB appliances is due to begin in August 2008, with completion due by the summer of 2009. The original delivery plan has slipped, partly due to difficulties experienced by Airwave in securing sites for its resilient ground based radio network. The project plan now offered by Airwave is considered to be both realistic and achievable by both CLG (the contracting authority) and the users.

As previously reported, the London Fire Brigade have taken early delivery of a number of Airwave terminals, to order to allow key staff and specialist officers to use the service and to access the interagency talkgroups.