

## New rail initiative tops Association agenda



The mobile voice and data requirements of the railway industry are to be the prime focus of a new initiative by the TETRA Association.

In the transportation world, TETRA systems are widely deployed not only at airports and shipping ports, but on both underground and light railways and, increasingly, main railway lines.

In response to this growing demand the TETRA Association is creating a Rail Subgroup to concentrate on the development of sophisticated and resilient voice and data services specifically designed to meet the communication and control requirements of the rail industry.

The Rail Subgroup will comprise key players from the railway industry along with expert members of the TETRA Association, and is expected to become a dynamic forum for open discussions between TETRA manufacturers, system integrators, rail signalling suppliers, telecommunications suppliers and rail operators

The Subgroup will identify the specific operational needs for voice and data services, particularly within railway signalling and control (such as Communication Based Train Control – CBTC) and train protection. By considering the technical interfacing needs of such applications, the Subgroup will jointly develop guidelines and best practices for system integrators to ensure the future compatibility of TETRA systems to the railway signalling and train control requirements.

The subgroup will also advise on possible needs concerning the development of new specifications or recommendations to pursue compatible solutions.

The inauguration of the TETRA Rail Subgroup will take place in April 2006. To express an interest in participating or for further information, please contact the TETRA Association on +44 1625 267886 or e-mail [rail@tetramou.com](mailto:rail@tetramou.com)

## EADS wins first phase in Germany

Focus on Data Applications

# P4&5

The EADS bid for the BOS nationwide digital radio network in Germany stands in first place after the initial evaluation phase.

This was disclosed by the Procurement Office of the Federal Ministry of the Interior on 8 March. Within the scope of the competitive tendering for the nationwide digital voice and data transmission network for German security authorities and organisations (BOS), EADS, together with Siemens, has submitted the most cost-effective bid according to the results of the first evaluation.



## New CEO

Phil Kidner has been appointed as the new CEO of the TETRA Association. He brings extensive user experience to the post, being a retired police officer and a long serving member of the Airwave programme in the UK. Phil is a Past President of BAPCO and currently represents them on Project MESA, an international co-operation between ETSI and the US TIA, where he chairs the System Specification Group. See *page 2* for a full profile.



Phil Kidner

## Realising a truly global standard

New CEO Phil Kidner joins the Association from PITO where he has been involved in the Airwave programme since its inception in 1994. Originally as a seconded police officer, he retired in 2003 after thirty years service, gaining invaluable experience in all stages of major project implementation – from initial specification through procurement and implementation to service management.

Phil, as a user representative, was involved in various aspects of the Airwave programme. For many years he chaired the TOPS forum where terminal manufacturers and managed service providers dialogued ongoing issues and developments with the Airwave service provider and network manufacturer. He also chaired at various times the Sharers forum, for non-police users of the service, the ICCS working group and the Security Working Group, and has been part of the Service Management team.

He has represented PITO on the TETRA Association Operators and Users forum during which time he was responsible for staging a number of events including showcases for application providers and user workshops on subjects including, Data, DMO and the PEI.

A Past President of BAPCO, the British Association of Public Safety Communications Officers, he currently represents them on Project MESA, an international partnership between ETSI and the US TIA addressing future mobile broadband communications, where he is chairman of the System Specification Group.

Phil said: "Having spent so many years involved in the early development and subsequent implementation of TETRA here in the UK, it is a really exciting prospect for me to now have the opportunity to be so closely involved in its realisation as a truly global standard for mobile communications."

## John Cox retires as CEO of the TETRA Association

The TETRA Association says farewell to one of the most experienced individuals in the business as John Cox retires as CEO.

John joined the Association in 2000 as Secretary, becoming CEO in 2002. He has become an internationally recognised figure in the TETRA community, and through the creation and management of a comprehensive global events programme, has raised the profile of the technology around the world.

John began his career in mobile radio at Pye in 1964, which later became part of the Philips group, leaving to take the helm at the Mobile Radio Users' Association (MRUA) in 1989. He returned to Philips in 1995 to take on the challenge of marketing the TETRA standard, and was one of the original team that produced the roadshows designed to educate a variety of potential users about the benefits of TETRA. John chaired all the events, the first of which in London in 1994 saw the signing of the first MoU.

John's 40-plus years of experience have benefited the Association in countless ways, and his diplomacy and administrative skills have ensured the Association has flourished and maintained a healthy financial position during periods of considerable challenge and change.

On behalf of everyone associated with the TETRA industry, we thank John for his invaluable contribution to the success of the TETRA standard, and wish him a long, happy and fulfilling retirement.



## Celebration cake for 50th Technical Forum meeting

**Motorola hosted the 50th meeting of the TETRA Technical Forum at one of its TETRA Engineering sites in Copenhagen.**

Celebrating the occasion are, left to right, *Vice-President Jens Kristiansen, Matthias Nerling (Motorola), Ralph Slattery (Sepura), Gunvor Tind, (Motorola), Giuseppe Russo (ISCTI), Dave Roscoe (OTE/Selex Comms) and Harri Hokkanen (EADS).*

## New Technical Forum Chairman



The Technical Forum has appointed Harald Ludwig (pictured left) as its new chairman. Harald has worked in the PMR industry since 1997 and participated in the Technical Forum and the TIP working groups for over six years. He runs a consultancy providing project management services for the mobile radio industry.

The Technical Forum is responsible for the management of the TETRA Interoperability process, including the development of specifications, monitoring and reporting on the progress of interoperability testing and the status of interoperability certification.

## Welcome!

**The TETRA Association welcomes the following new members from around the world:**

<b>Abertis Telecom</b>	Spain
<b>Boartes</b>	Qatar
<b>Centre Telecom iTI Generalitat Catalunya</b>	Spain
<b>P21 GmbH</b>	Germany
<b>Petroleos De Venezuela S.A.</b>	Venezuela
<b>Tieto-X plc</b>	Finland

## The Chairman's Vision

It looks like 2006 is the year for change. We're seeing a new look for the TETRA Association, and new faces working for the success of the standard.

We are saying farewell to our CEO John Cox, who has made a tremendous contribution to TETRA during his time in the industry, and we wish him the very best in his retirement. We welcome Phil Kidner as our new CEO. Phil is well known in the TETRA world, and he will be taking over from John in the coming weeks.

Our external team has seen some changes too. Bob Lovett, who edited TETRA News and handled the Association's media relations for the last eight years, has joined the GSM industry. Our thanks to Bob for his work in building a strong external profile for the Association, and substantially raising its awareness in the media. Bob is replaced by Beth Sharples, who has worked in the wireless industry for 15 years.

Daniël Haché from ASTRID joins the Association Board, bringing valuable perspective from the user community. Daniel replaces Anssi Kuusela, who is moving to a career outside the TETRA industry. We wish Anssi all the best for the future. We also welcome Harald Ludwig as chair of the Technical Forum. Harald takes over from Per Skaibaek, a great supporter of the Association for many years and a past member of the Board.

The TETRA Association website – [www.tetramou.com](http://www.tetramou.com) – has been redesigned and relaunched with a look that reflects the new dynamics of the industry. Events, too, are changing – following the success of the Association one-day conferences we have expanded the programmes to cover two days, to enable greater participation and exchange of ideas.

Phil Godfrey  
Chairman, TETRA Association



## New Director General appointed by ETSI

The 47th General Assembly (GA) of the European Telecommunications Standards Institute (ETSI) has elected its new Director General. Dr. Walter Weigel (pictured top right), who is currently Vice President, Standardization & Regulation, Siemens Corporate Technology, will succeed Mr. Karl Heinz Rosenbrock, who has served ETSI as Director General for 15 highly successful years.

The special lifetime award of "Honorary Director General" by the GA acknowledges Mr. Rosenbrock's leadership in European and worldwide telecoms standards-making, which heralded many advances in information and communication technologies, including GSM, 3rd Generation mobile, TETRA, DECT, satellite, digital television, integrated services and digital networks - all the subject of ETSI standards.



## Fire & Rescue signs up to Airwave



The contract to provide the English Fire and Rescue services with a new TETRA digital radio system has been signed between O2 Airwave and the Office of the Deputy Prime Minister (ODPM). Alun Evans, pictured left, Director Fire and Resilience, signs the £350 million contract on behalf of the ODPM, with Pete Richardson, Chief Executive of O2 Airwave.

The Airwave service is already in use by all police forces throughout the country and all Ambulance Trusts in England will have the service by the end of 2008. Motorola will be providing control room infrastructure that connects Airwave to the UK Fire Brigade control rooms, MTM800 and MTH800 mobiles and portables as well as MW800 mobile data terminals for fire vehicles.

## Qtel's TETRA takes the honours at 3rd West Asian Games



TETRA was hard at work for Qatar Telecom (Qtel) during the 3rd West Asian Games in Qatar, a 10-day sporting event with over 1200 athletes from 13 countries and regions across West Asia, held every four years.

R&S BICK Mobilfunk was commissioned by Qtel to expand its existing TETRA network by the end of 2005 when the city of Doha hosted the Games.

Just a few months after the order was placed, the expanded ACCESSNET®-T mobile radio system was successfully launched. R&S BICK Mobilfunk deployed a service team to Qatar to train the users – Games organisers and security personnel – and answer any questions in the run-up to the Games.

Qtel now plans to further expand the network for mid-2006. The nationwide network will then meet all mission-critical requirements, allowing it to be utilised by security and rescue services. Use by shipping lines, airlines and transit companies is also planned.



## Norway selects final two for TETRA tender



Following thorough analysis and the assessment of the bid strategies, the Norwegian Ministry of Justice has decided to carry on its negotiations for the new Public Safety Radio Network with two of the three network tenderers, after eliminating the proposal based on TETRAPOL technology.

Tor Helge Lyngstøl, Head of Project of the Public Safety Network project, said: "We are now negotiating with two tenderers for the network, where they are both offering TETRA technology, and with four tenderers for emergency control rooms. We do not consider the competition for developing the network to have suffered as a result of this decision".

The primary objective of the Ministry team is that the rollout of the country's new emergency Public Safety Radio Network will commence in the autumn of 2006.

## Delivering the data

– how TETRA meets the market need

With the advent of digital communications, and Java capability on the terminals, TETRA data applications are becoming increasingly sophisticated. End to end encryption means robust security. Capability is becoming constrained only by the limits of market imagination

## RESCAT TETRA brings major incident management to Barcelona

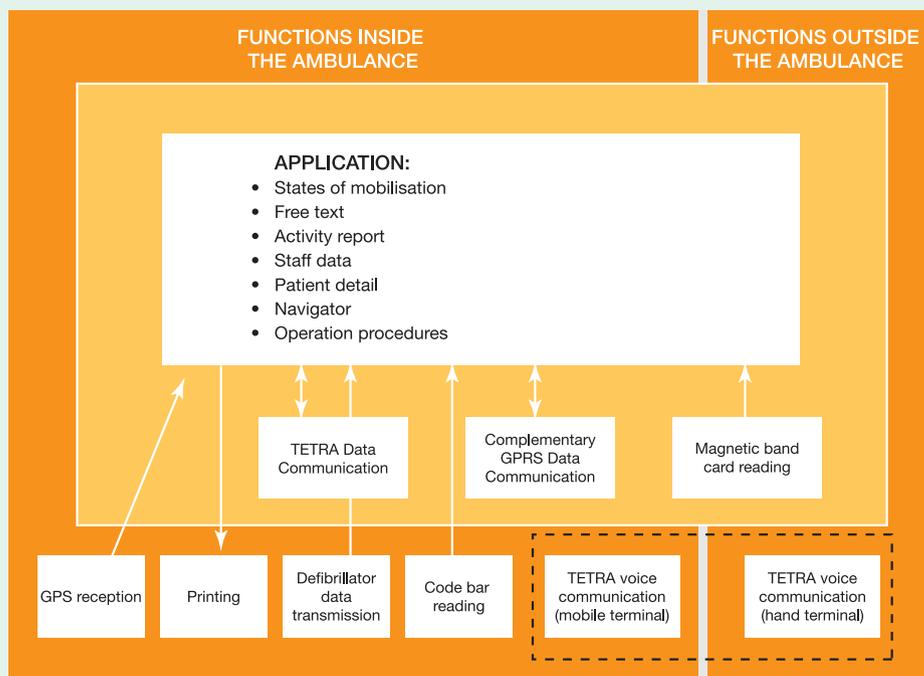
RESCAT, the digital radio communications dedicated to the security and emergency services in Catalonia, was deployed at the end of last year in Barcelona. For major incidents, RESCAT will enable the coordination of the emergency services using a common communications network.

One of these key emergency services, the Sistema d'Emergències Mèdiques ambulance service, manages the response to medical emergencies in Catalonia. It is scheduled to install the new RESCAT system by the end of this summer. Besides voice communication in emergencies, the new solution for the ambulances will bring flexible and safe data services.

The digital network will enable paramedics and ambulance staff to have the location coordinates of the incident, free text transmission and access to operational procedures. The ambulance control and coordination room operators will have incident data, patient details, activity reports and the location of the mobile resources.

The system on board the ambulances comprises a radio terminal and a rugged tablet PC. Other devices will be included for reading magnetic band cards or bar codes, paper printing and the capture of automated external defibrillator data. Hospital staff can analyse the defibrillator data in real time and prepare the most suitable treatment for the patient.

The rugged tablet PC will have WiFi communications to enable data mobility around the vehicle. Apart from the data communications through RESCAT, GPRS will act as complement and back-up, maximising the availability of the data in the on board system and in the control and coordination room. Both types of transmissions will have end-to-end encryption, guaranteeing the privacy of the transmitted information.



## Panama Canal

– channels TETRA communications

The 14,000 vessels that use the Panama Canal each year have TETRA to thank for the smooth running of the canal. The ACCESSNET®-T system from R & S BICK Mobilfunk was implemented for the Panama Canal Authority (ACP) in 2005 and began operating in January this year.

ACP is the operating company of the Panama government, and uses TETRA to operate, maintain and protect the canal 24/7. Stable and, above all, failsafe radio coverage is key to ensuring efficient management and fast response times.

R & S enhanced the ACP system with applications that allow alarm messages to be rapidly forwarded to the staff in charge. The integrated MMP-500 multimessaging portal transfers the messages to ACP's corporate network and distributes them as short data service (SDS) via e-mail.

An IP access point allows data to be exchanged between the TETRA system and the ACP web server. In the future, the TETRA system will transmit alarms, for instance signal malfunction or servicing requirements, to additional external communications systems such as GSM networks and the Internet.



## TETRA makes parking better in Bordeaux

Drivers in Bordeaux have TETRA to thank for their efficient car parks. The Bordeaux Metropolitan Authority – 'La CUB' – has a system that counts the number of cars entering and leaving a car park, and sends data using SDSs to the central TETRA system,

This processes the information and sends appropriate text to 100 street displays, which advise which car parks are full and which have spaces available, thereby reducing queues and congestion.

The Focus in this edition of TETRA News is on the new wave of data applications being deployed on TETRA networks. Only a selection are featured here, but the potential is obvious, especially with the increasing use of complementary networks such as WiFi and GPRS to provide flexible, innovative, purpose-designed solutions for both niche and mainstream markets.

## Java – a world of new capabilities for data applications

**Responsive and effective service from public safety and utility organisations is key to enhancing security and ensuring the smooth running of our fast-paced society. Having easy, on-demand access to the right information on the move saves time, increases efficiency and reduces stress in almost any field-based occupation.**

Mobile access to information is now easier than ever for professional organisations to introduce, thanks to the addition of the Java platform to TETRA radio terminals, enabling the implementation of applications specifically tailored to their needs. For example, officers can use their handsets to navigate more quickly to the scene of an accident. They may also find the nearest patrol and have its exact location highlighted on a map on the terminal screen. Utility workers can increase their efficiency by

receiving their instructions and submitting reports over the network without returning to headquarters. Or engineers can access technical extracts from databases to ensure they are ready to deal with a wide range of equipment.

### Adding applications gives handsets more capability

Professional organisations need to safeguard their investments and they want future-proof technology that's built to last. So the lifecycle of a TETRA terminal is typically far longer than that of a consumer product such as a GSM phone. It is therefore important that new applications can be added throughout the radio's lifetime, not just during initial production.

Java enables organisations to introduce their own applications easily, even over the air in some instances, with no need to return the terminals to base for re-configuration. In addition to

organisation-specific applications, this facility enables the easy introduction of temporary applications for a fixed length of time, such as during a major event. Event-specific applications can be distributed to all relevant users over the air and removed once the event is over.

### Optimised for mobile devices

Applications must be simple to use in order to offer real value to field officers working under pressure. Java J2ME is a platform specially targeted at mobile devices, perfectly suited for creating intuitive applications with colours, links and illustrative symbols. Java allows efficient use of network resources. Since the application runs on the terminal, it doesn't require a constant data connection over the TETRA network – it simply uses the network to transfer specific data when necessary, using for example short data messages or IP packet data.

For example, an application for vehicle licence plate enquiries could be simply a template with empty fields waiting to be completed. Instead of sending the whole form over the network, the application simply forwards the information that the user types in, perhaps as short data messages. The reply from the office system appears again on a template stored in the terminal. This approach is easy to use, quick and extremely efficient.

### World's most popular application platform

Java is already the most popular application platform for mobile devices. The technology is well-established and in daily use in the consumer market by millions of mobile phone users. As an open, standard platform it is used by a thriving community of experienced developers introducing reliable, high-quality applications.

Article courtesy of EADS

## National Integrated Identification System For Serbia

In line with the increasing global demand for biometric identification technologies to help countries counter domestic and international security threats, Motorola is working with the Serbian Ministry of Interior (MOI) to deploy a nationwide integrated identification system. The system is part of a bigger project undertaken by the Serbian MOI for the management of all identification, including passports, driving licences, and other government-issued identification.

The system is being used for criminal and civil identification purposes across Serbia, which has a population of 10.5 million and a jurisdiction encompassing more than



88,000 square miles. It includes Automated Fingerprint Identification System (AFIS), facial and photo imaging as well as livescan fingerprint and palmprint scanning technology.

Motorola is also using its Printrak Biometric Identification System (BIS), which combines biometric information from fingerprints, palmprints and facial images, which feed into a fingerprint database of 1.5 million criminal and 10 million civil records.

As part of the second phase of the rollout, the system will be expanded to include Mobile AFIS - Motorola's latest mobile fingerprint solution - integrating all of the company's core competencies, from radio communications using the TETRA network to mobile applications and AFIS expertise, and will also include passport identification applications.



Motorola's TETRA Portable MTH800 & Mobile AFIS solution

# TETRA rolls out around the world

## Finland

### Finland's Radiation and Nuclear Safety Authority selects Sepura



The Radiation and Nuclear Safety Authority of Finland (STUK) has chosen Sepura mobile TETRA radios for country-wide deployment. The contract was won in conjunction with Insalko, Sepura's official partner in Finland.

Sepura's SRM3500 mobile radios will be used for a SCADA application in the STUK's radiation measurement stations. STUK will deploy the radios throughout Finland in three distinct phases; the first installation will take place in west Finland in May-June this year; followed by the installations in the east and north of the country in autumn 2006 and early 2007 respectively.



STUK HQ

## Germany

### EADS enables STEAG service

EADS is to build a TETRA network for STEAG encotec GmbH, a subsidiary of the STEAG group. The group, with its registered offices in Essen, is one of the five largest energy producers in Germany. The new digital operations radio system meets the industrial company's latest requirements for security, performance and profitability with regard to company-internal communication.

Among the users will be the stand-by services, the Works Fire Brigade as well as the personnel responsible for service, maintenance and radio interference suppression at STEAG. The TETRA network will provide them with support for information exchange, malfunction management and personal security and will improve the general operational processes through coordinated site communication. The TETRA system's capabilities in data transmission will be used to operate remote-control systems.

STEAG encotec GmbH will operate the network and will be the first German industrial company to offer digital radio services on a large scale to third parties. Market research revealed a great interest from companies acting on a local and regional level, such as organisers of concerts and sporting events, communal services, private surveillance services, transport services, and utility and construction companies.

## Hungary

### Pro-M begins nationwide network rollout

EADS has signed a contract with Pro-M to deliver the infrastructure for the Hungarian nationwide TETRA radio network. Pro-M is the company established by T-Mobile Hungary and Magyar Telekom to build and operate the system. These include the Hungarian Army, National and Budapest Police, National Borderguard, National Catastrophe Prevention Directorate, Tax and Customs Office, National Law Enforcement, National Ambulance Services, and National Environmental and Water Protection Directorate.

"With the new, shared communication system, the Hungarian emergency and safety organisations can co-operate with each other more easily. This can enable the development of more effective working processes," said Mr. Istvan Pesti, Project Government Commissioner for the network. "What is even more important, the new communication services can save precious moments when lives are at stake".

## Italy

### Avitec to provide TETRA coverage in Brescia metro

Avitec has signed a contract with Alcatel for the provision of a complete TETRA repeater coverage solution in the metro of Brescia, a city close to Milan in Italy. The metro is a driverless system made up of more than 30 underground stations. The contract, which includes delivery of hardware, software, commissioning and design engineering, is due to be completed in 2013. Brescia metro has 12 kilometres of tunnels where more than 30 fibre fed repeaters are used to feed a radiating cable that transmits the TETRA signal.

## Korea

### Daegu Metropolitan Corporation deploys Motorola system

Daegu Metropolitan Corporation has deployed Motorola's TETRA system in its subway and emergency response operations. To ensure the system's interoperability with Daegu Police's 112 emergency service network in Korea, a pilot test was conducted to confirm that both radio systems can communicate seamlessly.

The exercise took place at the Daegu Hyunchungro subway station where the system was installed to control and monitor underground radio communications. The interoperability test involved communications between 220 users from the underground crew and the Daegu Police network on a single TETRA platform, using Motorola's MTP850 portable radios.

"This emergency exercise aimed to restore commuter confidence in our public transportation communications system, particularly after the fire arson incident at the Daegu Hyunchungro station three years ago," said Lee Jung Ho, radio communication network manager of Daegu Metropolitan Subway Corporation. "The TETRA system's proven ability to interoperate with the Police network is a clear indication that we are on the right track in building a more secure and efficient communications network that ensures the safety of our crew and commuters in daily subway operations and during emergencies."

### TETRA efficiency at Pusan NewPort gateway shipping hub

Pusan NewPort, based in Busan, South Korea, has selected a TETRA communication system from Teltronic and Sepura to maximise the efficiency of its cargo-handling. The new system, which includes Sepura's hand-held radios, will maximise the use of the limited frequencies available.

Pusan NewPort is aiming to become the gateway shipping hub of North-East Asia, a nexus for routes to Europe, Australasia, South America and the US west coast. It plans to handle the largest container ships whilst ensuring fast, efficient expedition of cargo and the highest levels of security – placing great demands on its communications infrastructure.

## Russia

### SELEX Communications and TETRAPROM to extend Moscow network

SELEX Communications, in partnership with Russian company Tetraprom, is to extend Moscow's TETRA network, part of the TETRARUS national programme that includes the Middle Volga TETRA network, also being deployed by SELEX Communications and Russian partners Tetraprom, Infracom and Tetrasoft.

SELEX Communications has been present in the former Soviet market since the early 1990s. In December 2001, it became the first company to sign a contract with the Russian Federation in the new 410-430 MHz frequency band for civil TETRA applications.



## Russia

### FSO TETRA system completed in Sochi

SELEX Communications, in partnership with Russian company Bermos Ltd., has completed the extension of Russia's Federal Security Guard (FSO) TETRA network in Sochi. The ELETTRA network, SELEX Communications' TETRA solution, provides service to 800 users.

### Network first for Moscow's Domodedovo Airport

Moscow's Domodedovo Airport is set to become the first airport in the Russian Federation equipped with a TETRA network. SELEX Communications, with Russian partners Infracom, Tetrasoft and Proftelecom has commenced delivery of the equipment to East Line, the company that manages the airport.

The ELETTRA network is an integral part of the project to innovate the airport's internal communications systems, a project that includes the wireless data applications that SELEX Communications is developing in partnership with Tetrasoft.

### More TETRA terminals for Moscow

The Russian Ministry of Internal Affairs has selected Sepura terminals for Moscow's new TETRA network. This contract was won in conjunction with Infracom, one of Sepura's official Russian distributors and member of the TETRARUS programme.

The Ministry's Traffic Safety and Special Operations Centre will trial Sepura's GPS-enabled mobiles and desktop terminals throughout 2006. Police cars will use Sepura TETRA mobiles to communicate with each other and with the dispatching centre. In addition, two dispatching centres in Moscow will use Sepura desktop radios with special software that will use GPS to track the mobile-equipped police cars on an electronic map of Moscow.

A number of the centre's police cars already use Sepura radios and onboard computers to exchange information with the traffic safety department, directly over the radio channel. Following the trial in Moscow, the Ministry of Internal Affairs will work with Infracom on the adoption of Sepura terminals by other services within the ministry and other regions of Russia.

## Serbia and Montenegro

### Nationwide rollout begins

Motorola is beginning the rollout of a nationwide TETRA deployment for Serbia, which will handle all of the country's critical communications for the police and other public safety agencies. In addition, 120 Motorola MW800 mobile data terminals will be deployed, enabling users to access or log important information in the field, enabling fast decision making in mission critical situations.

Other local government agencies and organisations, such as energy, oil, forestry, and insurance companies will be potential users of the system. Motorola is working with Serbian distributor Vlatacom Ltd to manage the rollout for the Serbian Mol (Ministry of Interior), which will be completed over three phases by 2008.

### Ministry of Interior selects Sepura radios

The Ministry of Interior (Mol) of the Republic of Serbia and Montenegro has awarded a contract to supply TETRA radios to Sepura in conjunction with 3Tech, Sepura's official partner for the region.

Mobile and hand-held digital radios will be supplied to the Serbian Border Police and will operate on the nationwide TETRA network deployed for the Serbian Mol and the Police.

## Sweden

### Exclusive deal for Police

The Swedish National Police Board has selected Sepura as the exclusive supplier of TETRA radio equipment for use on RAKEL, Sweden's new national TETRA radio network. Sepura products will be supplied and supported via its in-country distribution partner Swedish Radio Supply (SRS).

The Swedish National Police will use over 10,000 terminals in the first phases of the national rollout, starting in April 2006, when RAKEL goes live. RAKEL replaces the country's old analogue radio infrastructure and all Sweden's emergency services will migrate to it over the next two to four years.

Sepura's SRG3500 Mobile Gateway will be used to provide both direct and trunked-mode communication in rural and other areas where network coverage may be unreliable. Users will be able to seamlessly switch between modes, allowing communications to be maintained with the control room and colleagues, regardless of the local environment.

### Volvo drives ahead with TETRA

Volvo Car Corporation is to utilise Sepura TETRA radios for its Göteborg factory in Sweden. The radios are part of a TETRA communications solution supplied by Swedish Radio Supply, Sepura's official distributor in Sweden.

The TETRA communications system will be implemented for the Göteborg plant's production and maintenance departments, replacing the existing communication platform that has been in place since 1987. The plant has approximately 55,000 employees and the current production capacity stands at 70-80 cars per hour.

## UK

Arqiva has been awarded a contract by the Mid & West Wales Fire and Rescue Service to relocate its radio and telephone control systems to a new purpose built facility, to be shared with the Police and Ambulance services in the town of Carmarthen in West Wales. The radio and telephone control systems need to be de-installed, relocated and re-commissioned within 48 hours.



48 hour relocation for fire service

## Vietnam

### First for Ho Chi Minh City

The Ministry of Public Security of Vietnam (VMOPS) has completed its first-phase deployment of Motorola's TETRA-based digital trunked radio system. This system serves the secure Mission Critical communication needs of the police force in Ho Chi Minh, Vietnam's most populated city. This deployment marks Vietnam's first TETRA system in operation.

## TETRA events in 2006

During 2006 the TETRA Association will be running a series of one and two-day conferences aimed at supporting TETRA in its markets around the world.

The date for China will be published on [www.tetramou.com](http://www.tetramou.com) as soon as it has been finalised.

BAPCO Conference	UK	25th – 27th April	London	<a href="http://www.bapco.co.uk">www.bapco.co.uk</a>
TETRA 2 day Conference	Poland	13th – 14th June	Warsaw	<a href="http://www.tetramou.com">www.tetramou.com</a>
TETRA 2 day Conference	Brazil	18th – 19th July	Sao Paulo	<a href="http://www.tetramou.com">www.tetramou.com</a>
TETRA 1 day Conference	China	September	tba	<a href="http://www.tetramou.com">www.tetramou.com</a>
TETRA 2 day Conference	UAE	20th – 21st November	Dubai	<a href="http://www.tetramou.com">www.tetramou.com</a>

## CeBIT shows the way for end-to-end encryption

The 2006 CeBIT fair in Hannover, Germany, saw the spotlight fall on end-to-end encryption, with EADS and Motorola highlighting SmartCard based solutions that comply with the German BSI requirements and form the basis for national variants in the rest of the world.

SmartCard-based end-to-end encryption solutions are not terminal-dependent – users retain the information and the SmartCard will be interchangeable irrespective of terminal manufacturer, provided the SmartCard and terminal interface conform to TETRA MoU Security and Fraud Prevention Working Group (SFPG) recommendations.

Rohde & Schwarz presented their brand new mobile communication architecture for TETRA networks "IpMCA@", while their TETRA outdoor base station and A-TAPP@ (ACCESSNET@ – TETRA Application Partner Programme) was the main focus of their presentation. This year's CeBIT



saw a strong emphasis on data on the field, especially Java and WAP-based applications such as Internet searches and the transmission of biometrical data such as fingerprints. Together with Motorola and T-Systems, R&S presented TETRA solutions for public safety at the Motorola booth.

Teltronic showcased the three-watt HTT-500 handportable, and R & S showed the FWK ATEX terminal, re-established by LBAG with upgraded colour screen and ATEX re-certification. Motorola presented its prototype of the new control head for MTM 800 and EADS launched its THR880i Light terminal model targeted to be the basic category handheld for price-sensitive customers.

## An invitation from ASTRID

ASTRID is holding a TETRA Users' Day in Belgium on 11 May. If you are a user, or are interested in the capabilities of TETRA, the ASTRID day will enable you to become familiar with the many applications of TETRA in a relaxed atmosphere.

Attendance is free of charge. To register, email: [usersday@astrid.be](mailto:usersday@astrid.be) or call + 32 2 500 6711 for further information.

## Indian Conference Success



Over 200 delegates registered for the TETRA Association Conference and Exhibition, held in New Delhi, India. Presentations from international and local speakers covered a number of market sectors, including public safety, military and transportation. Of particular interest were the user case studies covering Delhi Metro and Bangalore Airport as well as the generic case studies for rail and military applications. Lively and challenging debate followed every presentation, which meant the proceedings closed considerably later than planned!

This was the first attendance at an Association one-day event for some of the exhibitors, and all reported an excellent day of interest and new contacts.

More information on products and companies in this edition can be found at <http://www.tetramou.com/signatories.aspx>

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