tetra news

INFORMATION FROM THE TETRA ASSOCIATION www.tetramou.com **1 / 2006**

National TETRA system arrives in Austria

Austria's new TETRA system has been officially launched. Innsbruck, in the Tyrol region, came on line on 4 January, with the capital Vienna joining the following week. The rollout of the system, to be used by all safety organisations, was accelerated to ensure its availability for Austria's current tenure of the Presidency of the European Union.

The national public safety TETRA network in Austria was specifically designed to integrate underground communications with the overland system. February will see the commissioning of the 48 base stations that cover the Vienna metro system, giving the city seamless service.

"The new digital network will be a great help for all safety organisations in Austria. It is a major step for more safety in Austria," said Austrian Minister of Interior Liese Prokop.

The TETRA network successfully completed its first trial run at the "Universiade" in Innsbruck a year ago. The system is supplied by TETRON Sicherheitsnetz Errichtungs- und BetriebsgmbH, a joint venture between Alcatel Austria AG and Motorola GmbH.

Liese Prokop, the Minister of Interior, pictured testing out the new police command and control room at Innsbruck, watched by Herwig van Staa, the Governor of Tyrol, (seated) and Oswald Gallopp, Police Commander of Tyrol (centre standing).

Germany hosts 2005 World Congress

as TETRA confirms worldwide presence and growth

Talking TETRA in Frankfurt

The Forum Messe in Frankfurt, Germany became the global activity centre for TETRA at the end of November 2005. Four days packed with seminars, conference presentations, exhibition booths and the opportunity to network with TETRA users, manufacturers and service suppliers brought delegates from all over the world to see and hear the latest TETRA news for themselves. Phil Godfrey, the Association's Chairman was "delighted with the number of first time attendees to this year's TWC – a very good sign for business in 2006."

Delegates had a full agenda of presentations and case studies to choose from, and the presence of a wide range of manufacturers of TETRA equipment, accessories as well as specialised services, was a positive reflection of TETRA's worldwide presence and growth. The independent research consultancy IMS observed in its newsletter that there was a "clear indication that a growing number of manufacturers believe that TETRA is a mobile radio technology with a major market potential". They also highlighted that the 'mantra' for TWC2005 was "data services and applications".

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TETRA Association enters 2006 on a high

A very Happy New Year from the TETRA Association. It was a happy old year too, as TETRA celebrated the end of 2005. Key decisions were taken by the governments of Hungary and the UK to deploy the technology for nationwide networks – full stories inside. Already this year Austria has turned on the TETRA service, and the decision from Germany is awaited…

Meanwhile, around the world, TETRA continues to make its mark, with strong regional growth. TETRA has been deployed for PSS use in almost all European countries in the 380-400 MHz frequency band. The fastest growing regions in percentage terms during our 2005 survey period were Africa and the Middle East, demonstrating TETRA's momentum as a standard.

Phil Godfrey, Chairman of the TETRA Association, said: "We seem to be at a point where we are changing up a gear as TETRA growth accelerates in regions outside Europe.

"To help respond to the demand for TETRA information from Asia, the Middle East and Latin America, the TETRA Association will be holding regional events. If potential users can't come to TETRA then we'll go to them." Provisional details are on the back page.

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TETRA World Congress 2005

Data applications were on display for markets ranging from transportation to public safety and from commercial to military. Handsets and mobile terminals are all data capable with displays and operational features designed to fully exploit TETRA's data flexibility and capability. The number of companies promoting dedicated TETRA antenna solutions demonstrates that the market for accessories has also taken off.

With Germany well on the way through their decision process for the nation's next Public Safety communications solution, the location of this year's TWC was very appropriate. Not only did Hamburg's Police Chief, Gunter Krebs open the whole event, a dedicated stream in German was part of the first afternoon's proceedings. Chief Krebs graphically illustrated in his presentation how technology had advanced in every area. He emphasised that he is looking forward to benefiting from similar technology advances with the new modern, digital communication solution for Germany's Public Safety organisations.

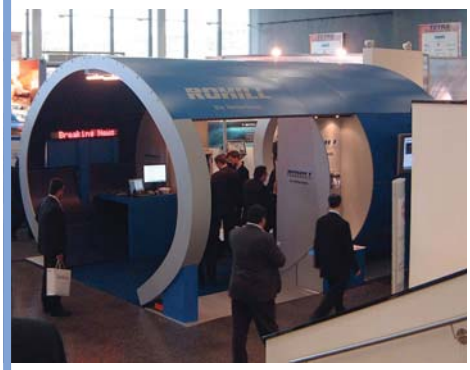
Hans Borgonjen, one of the longest serving members of the TETRA Association's Board and a founder member of the combined group of European Public Safety communication officers who have been helping to turn the Schengen vision into a reality, reflected on the imminent decision in Germany for its new Public Safety communications solution. "Germany is very close to a momentous Public Safety communications decision. Their choice of a new communications technology will be a significant step towards completing the harmonisation we are all hoping for," said Hans.

The 2005 Awards

One of the highlights of the TWC's programme is the Gala Evening and Awards, held in the palm-filled Wintergarden close to the Forum. This man-made paradise was quite a contrast to the icy winds outside, and the Deputy Mayor of Frankfurt contributed to the warm atmosphere inside the Wintergarden with her welcoming speech – identifying the significance of the World Congress, the TETRA business and the forthcoming opportunities in Germany.

Dr Mehdi Nouri of SELEX, recipient of the award for Outstanding Contribution to TETRA for 2005, with TETRA Association Chairman Phil Godfrey

The Awards for the evening were presented by the Association's Chairman, Phil Godfrey. First on stage was Hester Visser from Rohill to collect the best Exhibition Stand award. All the judges were impressed with the company's combination of an innovative stand design and attentive stand personnel. The second award of the evening was the announcement of the Outstanding Contribution to TETRA for 2005. This year it went to Dr Mehdi Nouri of SELEX (previously known as Marconi). Mehdi is well known and respected for his TETRA knowledge and his long-standing contribution to developing the TETRA standard. Mehdi's career has included time in the academic world as an Associate Professor and many commercial roles in SELEX Communications. As well as a number of publications to his credit, Mehdi's TETRA contributions also include his long serving role as Chairman of the TC TETRA Working Group 4 more recently responsible for developing the TETRA Release 2 High Speed Data standard.



Rohill's award-winning stand

Welcome!

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

American International Radio inc	USA
Atlas Telecom	United Arab Emirates
CeoTronicsAG	Germany
China TETRA Union (CTU)	China
Hisense Communication Co Ltd	China
Ipsys Communications AG	Switzerland
Iran Communications Industries (ICI)	Iran
Middle East Radio Co. (MERC)	Egypt
RATP	France
Telex Communications Inc	USA

Sepura announces the formation of Sepura Italia

Over the next five years Italy is expected to become the second largest European market for TETRA radios for Public Safety organisations, with more than 300,000 users. In recognition of the importance of the Italian TETRA market, Sepura is currently establishing Sepura Italia.

Graham Matthews, Sepura's Managing Director commented: "Thanks to the support of our Italian partners, Sepura has already established a strong presence in the commercial and public safety markets for TETRA radios in the north of Italy. The launch of Sepura Italia is the logical next move."

It's team TETRA!

This year's football World Cup tournament in Germany will be TETRA-connected. T-Systems, Motorola, and R&S BICK Mobilfunk will be bringing TETRA digital radio to Hamburg, supplying the region around the World Cup stadium, the main train station and the police headquarters in Alsterdorf and St. Pauli.

Around 150 officers from the police and fire-fighting forces will be equipped with TETRA hand-held devices. The contract was awarded by the Authority for the Interior of the Hanseatic City (Hamburg).

Countrywide TETRA in Hungary by 2007

TETRA looks set to be in Hungary's capital Budapest by this April, with handover of the nationwide network planned for early 2007. The contract for implementation of the Unified Digital Radio Telecommunications System (EDR) was concluded by the EDR Government Commissioner and the consortium of T-Mobile Hungary and Hungarian Telekom late last year.

The Hungarian EDR system will be used by the National Police, Border Guards, Fire Services, Catastrophe Protection Directorate, National Environmental and Water Management Directorate, Prime Minister's Office, National Safety Services, Ministries of Finance, Justice and Health – National Ambulance Service, and the Hungarian Army.

Antennas for all

In-vehicle radio communications mean mounted antennae – and that means holes in the vehicle, potentially devaluing the resale value of leased cars and commercial vehicles. AntenneTechnik ABB has developed a solution – an antenna that allows for the combination of frequencies on one structure. The multifrequency capability covers AM/FM, GSM 900/1800, GPS, TETRA, VHF, UHF and DAB Radio.

Airwave set for UK Fire & Rescue service

Firelink, the procuring body for the national communications contract, has confirmed that O2 Airwave, subject to satisfactory completion of final contract details, has been successful in its bid to equip all Fire and Rescue services throughout England with a new resilient and secure voice and data communications service.

The announcement comes prior to contract award. A framework is being created for the scheme that provides the devolved administrations with an option to extend the service to Scotland and Wales.

Jeff Parris, Vice President for O2 Airwave said, "This announcement gives us an opportunity to prove that we can provide the nation's Fire Services with the very best in communications"

The UK Fire Minister, Jim Fitzpatrick said, " We are investing heavily in the fire and rescue service to ensure that it is able to meet the challenges of the modern world. Firelink will transform the current arrangements and give the service, for the very first time, the same digital radio system across the country – a system that will enable firefighters to communicate not only between fire and rescue services but also with other emergency services, regardless of location."

The Chairman's Vision

Welcome to 2006 and the new-look TETRA News. Together with the redesigned website and the planned programme of regional events, the TETRA Association has developed a new corporate identity. Although we have a different look, the objective remains the same - to support and promote the TETRA standard worldwide and to provide a forum to share and exchange information and ideas amongst a wide variety of individuals with a common interest in the success of the standard.

Success is the right word – our annual contract survey shows that TETRA has now been deployed in over 40 per cent of countries, and 2005 was the third consecutive year in which we reported double figure growth in TETRA contracts. While Public Safety remains the biggest user group, Transportation is showing healthy growth, and it is this sector that we feature in this issue.

During 2005, TETRA has been making its mark around the world, with Africa and the Middle East the fastest growing regions in percentage terms. As the standard is deployed in new markets outside Europe, we will ensure its profile is enhanced as we take to the road, with TETRA Association events planned in India, Poland, Brazil, China and the United Arab Emirates.

The membership of the Association continues to grow, and we warmly welcome our new members. We wish you, and all the members of the Association, a peaceful and successful year.

Phil Godfrey
Chairman, TETRA Association

TETRA in transportation

On a bus, tram, train or taxi near you…

The 2005 TETRA user survey has shown that the Transportation segment has emerged as the second largest TETRA market. Transportation is a complex and time-critical service, and TETRA provides the reliability and flexibility to ensure that the service, whether road or rail, meets both operator and passenger expectations.

We take a look at TETRA in the context of transportation – who's using it, where and why. This focus is just a snapshot of the impact that TETRA is having on the efficiency and organisation of the transportation industry – ensuring passengers arrive at the right place, at the right time.

Taxi!

Fyns Taxa chooses Frogne

Fyns Taxa, eight independent taxi companies and control centres spread over the island Fyn and parts of South of Jutland in Denmark have replaced their analogue network with a TETRA solution from Frogne.

The network uses Rohill's TetraNode solution, with each taxi equipped with Frogne's on-board system including a TFT touch screen terminal with integrated navigation, a mobile printer and an on-board computer with GPS.

Besides AVL for automatic despatching of jobs, the system also enables on-line credit card transactions, database queries and the collection of operating data. Frogne chose Sepura SRM2000 mobile TETRA terminals as they support dual control consoles and multiple data applications.

Taipei accepts SELEX TETRA

Finmeccanica subsidiary SELEX Communications has completed the Factory Acceptance Test (FAT) for its Elettra TETRA system for the Taipei Mass Rapid Transit (MRT) System in Taiwan.

Elettra will replace the existing analogue radio system, and will provide communications to MRT's new lines - Hsinchuang Luchou Line and Nankang Line Eastern Extension.

Once completed, Taipei's MRT System will comprise over 100 passenger stations, depots and an operational control centre. The project is expected to be complete by 2012.

Paris trains and buses in touch with TETRA

RATP, the French transport company, is responsible for moving more than nine million passengers around Paris each day. Their new TETRA system, provided by EADS, will provide flexible, integrated radio communications between RATP staff across all areas of the transport network.

Both images © RATP – Jean François Mauboussin

TETRA on the trams

The TETRA communication system for the tram line in Lisbon, Portugal, has been provided by Avitec in cooperation with Siemens. A seamless TETRA coverage along the tram line tracks was provided by antennas that were mounted on relatively low masts which also eased the installation.

Germany's RNV talking TETRA in 2007

Germany's Rhine-Neckar Transport Company – rnv – has chosen TETRA to co-ordinate its local public transport system. As of 2007, some 470 buses and trams will be equipped with mobiles and 330 handhelds in the Heidelberg-Ludwigshafen-Mannheim area and will exchange information via voice and data radio. Electronic signs at bus and tram stops will be connected to the TETRA system to provide waiting passengers with real-time information on departure times.

Motorola was engaged by general contractor Siemens VDO Automotive to deliver, install and commission the TETRA Dimetra IP radio system for rnv, which in 2004 provided transport for around 159 million passengers.

Russia turns to Metro TETRA

Kievskaya station, Moscow

Engineering for underground railway construction and electrification was mastered about 100 years ago. But it took almost 70 years for TETRA radio communication to make its way into the heart of the Russian capital's metro.

On May 15 1935 Moscow's line no. 1 started in service. Russia's first subway comprised thirteen stops over twenty-six kilometres of railway tracks.

Today, Moscow Metro operates 12 train services, over 278 km of route length and 171 stations. As one of the world's most heavily used metro systems, the state-owned carrier transports between 8-9 million passengers on a normal weekday. During peak hours, trains run every 90 seconds on most lines.

Now TETRA technology is being introduced to bring underground communications to the metro. The Russian Ministry of the Interior has commissioned the construction of a radio communications system in the metro system. The order was placed with the Russian system house ICS-System, R&S BICK Mobilfunk GmbH as TETRA system suppliers and Rohde & Schwarz GmbH Europe as coordinator. Together these three companies will supply and install and deploy the TETRA radio communication system, due to be operational by the end of this year.

Danish Railways provide final link in total TETRA communications

The final link in a totally TETRA-enabled public transportation system in Copenhagen

The Danish State Railways (DSB) S-train has a new TETRA network provided by Motorola and TetraNet, delivering communications for the DSB's service personnel, including train inspectors and drivers. The contract award by DSB means that all public transportation organisations in the capital, Copenhagen, will now rely on TETRA technology and services to meet their communication needs. The network was delivered in the latter part of 2005 as part of a rapid rollout - part of DSB S-train's IT strategy to improve efficiency.

Although the TETRA standard was initially developed for mission critical environments, TETRA technology has also been widely embraced by public transportation organisations that need secure, reliable voice and data communications. In Denmark, the Copenhagen Metro was the first organisation to choose TETRA, followed by Hovedstadens Udviklingsrråd (HUR), operating more than 1,200 buses, and now the commuter train services have also chosen TETRA.

It's snowing Sepura radios

The Russian Railway – recipient of Sepura's 250,000th radio

Sepura has announced the delivery of its 250,000th radio. Whilst the largest supplier of TETRA radios to its home market, the UK, this milestone also marks a doubling of Sepura deliveries to international markets, each year for the last three years.

The 250,000th radio was delivered to Russian Railways, the world's largest transportation company, responsible for almost 80% of Russia's rail transportation network. Sepura radios are used on the Moscow rail network for inter-train communication between drivers, maintenance staff and station duty officers. The radios will also support critical data transmission between trains and the rail network's automated-control systems. Sepura is supplying SRH3500 hand-held radios and SRM2000 mobile units as part of the contract won by one of its Russian partners, Globalsvyaz.

Sepura radios can also be found on the Moscow metro, and in Bangkok, where a repeat order has been placed by Siemens as part of the implementation of its 350 million euro turnkey contract for the new metro line, which also includes 19 TETRA base stations.

In Spain, Sepura's key international partner, Teltronic, has won a contract with the Metropolitan Railway Company of Madrid (Metro de Madrid) for the supply of a dual set of TETRA and analogue PMR equipment and specifically designed consoles for the trains. Teltronic's contract includes the supply of Sepura radios for installation in each train as an emergency back up radio-communication system.

TETRA travels from Moscow to St Petersburg

The Russian Railway was the first in the world to make the decision to adopt TETRA technology instead of GSM-R, and the 800 km Moscow-St. Petersburg line has already taken delivery of the first phase of the system. Teltronic was awarded the contract to supply the TETRA system.

Teltronic's Russian partners Globalsvyaz, are the main contractors, and together with Microtest's engineering expertise, will build, assemble and commission the system in the field. Specific interfaces have been designed to provide locally developed line dispatching facilities, and strict SORM specifications to allow a comprehensive call monitoring capability have been implemented.

Counting the contracts

TETRA continues to be adopted worldwide. The annual contract survey, completed in October 2005, lists over 788 infrastructure and terminal contracts awarded in 77 countries – a contract growth of 27 per cent compared to the 2004 survey. We take a look at some of the latest:

ARGENTINA: Widely distributed network

Teltronic has supplied a widely-distributed TETRA network to REPSOL-YPF for its oil processing plants, and a TETRA network and two despatching centres to Damovo for the Ministry of Security in Neuquen Province.

BELGIUM: Firefighters select EADS

A special commission of fire fighters has selected EADS TETRA THR880i terminals, to be used within the scope of ASTRID, the countrywide Public Safety network in Belgium. The terminals are supplied by EADS distributor AEG Belgium, who will also provide configuration, installation and maintenance services.

BRAZIL: TETRA calls in Bahia

Teltronic will supply a TETRA system and call despatching centres to the Secretary of Public Safety of the state of Bahia. The Military, Civil and Scientific Polices and the Fire Brigades will share the system in the area formed by the capital city of Salvador, the city of Feira de Santana and the BR-30 highway between them.

CHINA: Motorola wins Tianjin TETRA

Motorola has won a 12 million RMB Yuan (US$ 1.5 million) contract with the Tianjin Economic-Technological Development Area (TEDA) to deploy a TETRA-based Emergency Response Communication radio system under the Tianjin Government Radio Network (GRN). The system will be fully operational by the middle of this year.

Beijing Police choose Sepura

Sepura is supplying handheld and mobile TETRA radios to the Beijing municipal government for use by the Beijing police. The contract award was made possible by the joint efforts of Sepura's partners in China, Beijing Sonicom and Beijing Yongxin Union Technology.

IRELAND: TETRA for the Dublin force

After a public tender issued by the police, EADS Secure Networks has won the contract for the delivery of additional hand portable TETRA radios through its local distributor Radius Communication to the Irish police, An Garda Síochána, for its Dublin network.

GERMANY: BMW buys TETRA

BMW AG has chosen Sepura TETRA radios for its Test Tracks sites in Germany, Sweden and France, part of a complete digital mobile communication solution provided by 3T Communications AG - owned by Frequentis GmbH. The installation of the TETRA communications system was completed in November 2005.

KOREA: First nationwide TETRA-based government radio network in Asia

Motorola's leading distributor in Korea has won a bid to provide Korea's National Emergency Management Agency (NEMA) with a TETRA system for its nationwide Government Radio Network (GRN) project over a period of three years. This is the first nationwide TETRA-based government radio network in Asia, with more than 140 government agencies and 22 national institutions linked up on a single communication platform.

T.On Telecom chooses TETRA

T.On Telecom is replacing its existing trunking radio network system with a TETRA digital radio system from Motorola – the first TETRA-based Public Access Mobile Radio network in Korea. The Dimetra IP-based Motorola infrastructure will include a network of more than 56 sites within the Seoul, Kyungki and Incheon areas. EADS has been chosen as the main terminal supplier.

THE NETHERLANDS: Largest terminal contract

Regio Politie Amsterdam-Amstelland (RPAA) has chosen THR880i radios from EADS for use in the C2000 network. The biggest terminal contract in the Netherlands, signed between RPAA and EADS distributor Zenitel, means that each field officer will have a personal THR880i radio. The deliveries commenced at the end of 2005 and will last into 2006.

NIGERIA: Artevea covers Lagos

Briscoe TETRA has chosen Artevea's (formerly SDUK Ltd) T-MATRIX technology to build its TETRA network throughout Lagos, including the international airport.

SLOVENIA: TETRA protection

The Ministry of Interior of the Republic of Slovenia will use Sepura TETRA radios to protect the south European Schengen border. The contract win was made possible by 3Tech d.o.o., Sepura's partner in Slovenia.

SPAIN: SELEX success in Spain

Finmeccanica subsidiary SELEX Communications, in partnership with Spanish company Soluziona, has won a EUR 10 million contract for the first phase of a TETRA network for the emergency services of Spain's Castilla La Mancha region, providing voice and data services to the region's fire brigade, police, civil protection agencies and emergency services.

Signing the contract: left to right – Wenceslao Sànchez de la Peña, General Director Telecom Castilla La Mancha

Santiago Roura Lama, Managing Director Soluziona

Josè Manuel Diaz-Salzar, Industry and Technology Counsellor Castilla-La Mancha Region

SELEX Communications and Soluziona have also supplied network and handsets to AENA (Aeropuertos Españoles y Navigacion Aerea), for Barajas airport in Madrid. AENA is the world's biggest airport and air traffic control organisation, controlling 42 airports in Spain and several others overseas. The network will be managed by local operator Telecom Castilla La Mancha (TCLM), and will be used by more than 5,000 people.

VENEZUELA: Teltronic in Trujillo

Teltronic has been awarded the contract to supply a TETRA network to the Venezuelan State of Trujillo Police.

Motorola's first pocket PDA

Motorola's Pocket PDA

Motorola has launched the first wearable personal digital assistant (PDA) to operate on the TETRA network. The TETRA PDA enables public safety users to access databases and receive data information while on the move.

Initially focussed on the police, the TETRA PDA gives access to person and vehicle records, and allows crime and accident reporting and the issuing of penalties without the police having to return to the station.

Worn on the shoulder, the belt, or carried in the pocket, the TETRA PDA weighs just 450 grams.

APD launches Generic TETRA Interface API for CORTEX™

APD is launching a new version of its CORTEX™ integrated software that the company says is compatible with virtually any TETRA radio infrastructure. The converged control room system will feature a Generic TETRA Interface (GTI) that will allow APD TETRA partners to offer their own technology fully integrated with CORTEX™ 5.8 using the published API (Application Program Interface).

CORTEX™ is a modular Software-Integrated Communications Control System (SICCS), which merges radio dispatch, telephone call handling, video monitoring and web services into configurable call queues. All information is then displayed and controlled from one screen and the audio is presented on a single headset, which reduces the time taken to log incidents and lessens despatch time.

Neil McCutcheon, CORTEX™ Product Manager at APD explains, "TETRA radio system suppliers do not always have telephony skills – their expertise is mainly radio. The CORTEX™ GTI allows them to concentrate on their own technology."

TetraNode-M

command and control cube

Based on the increasing demand in the market for flexible rapid deployment systems, Rohill has introduced TetraNode-M - a modular system available in two dedicated versions: one for disaster relief, and the other for military applications.

TetraNode-M consists of a fully transportable cube with shock-absorbent enclosure. These cubes can be used to set up a temporary command and control room at any physical location or inside a mobile shelter.

Aeroflex in complementary mode

Aeroflex has announced the availability of a new TETRA Direct Mode option that provides the Aeroflex 3900 Series digital radio test platform with direct mode call setup and parametric testing capabilities. Complementing the TETRA MS Trunked mode option the TETRA Direct Mode option extends the platform capability to give test coverage of the radio's hardware and signalling in areas that have additional demands placed upon them due to the technical differences between Direct and Trunked modes of operation.

EADS introduces TETRA Transportable and TETRA with Java

TB3c - Finnish first

EADS has made the first deliveries of its new transportable TB3c TETRA base station to the Finnish Defence Forces. According to EADS, the TB3c can offer coverage enhancements of up to 30 per cent compared to other available portable TETRA solutions and is particularly suitable for vehicle installations, international operations and highly mobile activities.

EADS has also introduced the Java platform into its THR880i terminal. Since the Java application runs on the terminal, it doesn't require a constant data connection and therefore enables efficient usage of the TETRA network resources.

The THR880i with added Java

As a public platform, Java will open up a wealth of third-party applications expertise to TETRA users, since it is already the most popular application platform for mobile devices.

Artevea's next generation

Artevea has unveiled its latest addition to the T-MATRIX portfolio of TETRA over IP products, called T-MATRIX NXG. The wall-mounted device is developed around the core of an Integrated Embedded Real Time Platform. The next generation T-MATRIX technology is future proof and is designed to support the developing TETRA Release 2 Standard and Inter Systems Interface (ISI) Specifications.

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 dates for the events on Poland, Brazil, China and the United Arab Emirates will be published on www.tetramou.com as soon as they are finalised.

TETRA 1 day Conference	India	8th February	Delhi	www.tetramou.com
BAPCO Conference	UK	25th – 27th April	London	www.bapco.co.uk
TETRA 2 day Conference	Poland	May	Krakow/Warsaw	www.tetramou.com
TETRA 2 day Conference	Brazil	June	tba	www.tetramou.com
TETRA 1 day Conference	China	September	tba	www.tetramou.com
TETRA 2 day Conference	UAE	November	tba	www.tetramou.com

India – Bangalore's new airport chooses TETRA

Siemens AG Austria has signed an initial contract to supply a TETRA network to the new Bangalore International Airport, due to open in 2008. Located at Devanahalli around 34 km north of the city, the airport can be developed to handle up to 40 million passengers a year.

The initial TETRA system will be expanded in line with the airport growth requirements. The airport is owned and operated by Bangalore International Airport Limited (BIAL), a public limited company comprising three private share-holders: Siemens Project Ventures, Larsen and Toubro and Unique Zurich Airport, and the governments of Karnataka and India.

ISCTI Certifies Frequentis eXTRAS

Frequentis' eXTRAS - eXtensible Trunked RAdio System – has won IOP certification from ISCTI following multivendor testing. The certification process was the first session with ISCTI where the two infrastructures, Frequentis eXTRAS and Compact TETRA by the Consortium Frequentis /DAMM for Motorola, were tested in parallel.

The eXTRAS platform supports voice and data applications and all tested features – Core, SDS, Packet Data, E2EE, Service Interaction and Fallback, have gained IOP certification. Interoperability Certificates are derived from evaluating the information exchange between live TETRA terminals and live TETRA infrastructures. Frequentis is one of the original supporters of the IOP Process.

A brand new handportable from Teltronic

The HTT-500

Pictured is the new TETRA handportable HTT-500 from Teltronic. Featuring optional latest generation state-of-the-art GPS; optional Bluetooth® connectivity; AIE TEA 1, 2 & 3 and several optional E2E encryption algorithms, the HTT-500 will be available from July 2006 (380-400 MHz and 410-430 MHz) and December 2006 (450-470 MHz and 806-870 MHz).

It's Avitec in the tunnels

The Channel Tunnel Rail Link (CTRL) is the UK's first major new railway for over a century – a high speed line running for 109km between St Pancras station in London and the Channel Tunnel. Once completed in 2007, a non-stop journey from London will take two hours and 15 minutes to Paris and just two hours to Brussels.

Avitec was chosen by Thales - turnkey provider of the radio system - as supplier of radio repeater equipment for coverage in the three tunnels that are part of the high speed line. A total of 20 km of track are covered using Avitec's radio coverage solutions. Around 80 fibre fed repeaters have been installed and commissioned for systems serving the Metropolitan Police, GSM-R, Cab Secure Radio and the London Fire Brigade. The project is due to inaugurated in January 2007 by the Her Majesty the Queen.

More information on products and companies in this edition can be found at **www.tetramou.com>signatories**

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