

In Brief

MARCONI COMMUNICATIONS

(website: www.marconicomms.com)

Marconi Communications Launches SmartPhotonix Family of Wavelength Division Multiplexing Products

Marconi Communications has introduced a world-leading family of optical equipment – the SmartPhotonix family of DWDM (Dense Wave Division Multiplexing) products that, for the first time, offer the benefits of optical transmission for both long-haul and metropolitan area networks. It was shown for the first time anywhere in the world at PT/Expo Comm China '98 exhibition in Beijing.

Parallel developments at Nottingham in the UK and Genoa in Italy have been integrated enabling Marconi Communications to offer DWDM solutions for both point-to-point and, uniquely, ring-based network topologies. The SmartPhotonix managed product range, available commercially in early 1999, comprises:

- the MSH 73 optical multiplexer, targeted at long-distance, point-to-point line systems;
- the MSH 75 optical amplifier for augmenting the signals over long distances; and
- The PMA 8, targeted at ring-topology Metropolitan Area Networks such as the City of London.

AWACS Upgrade Order from Boeing

Marconi Communications has won a £29 million order as part of a comprehensive modernization of the AWACS (Airborne Warning And Control System) aircraft operated by NATO (North Atlantic Treaty Organization). The order, from The Boeing Company, Seattle, is to develop a new on-board system for the AWACS aircraft to enable it to interrogate targets and identify friends and foes.

Marconi Communications, which has developed world leadership in electronic identification technology, is teamed with the US Company Telephonics to develop a system that maximizes commonality between the NATO and US fleets.

Installation of the new interrogator systems is expected to start in December as part of NATO's Mid-Term Modernization Programme for its AWACS fleet.

TETRA Systems for Croatia and St Petersburg

The organization responsible for generating and distributing electricity throughout Croatia – Hrvatska Elektroprivreda – has chosen a state-of-the-art TETRA (TERrestrial TRunked RAdio) system from Marconi Communications as a private mobile communications network for its engineers working in the field. The contract, worth £1.6 million, includes network design, installation, network management and training by Marconi Communications.

A TETRA digital mobile radio system is also to be supplied to the Russian city of St Petersburg for use in the underground railway – the Metro System. Marconi will supply four Switch Control Centres, 60 multiple-carrier base stations and a quantity of hand-portable and train-mounted mobile terminals. It is also providing specialized software enabling every one of the 230-plus trains to be contacted and a response generated within one second.

Major Contract for French Ministry of Defence

The French Ministry of Defence has awarded a contract worth £2.5 million to Marconi Communications for a maritime radio broadcasting system to enable information to be broadcast world-wide. The system – to be installed in France and its dependencies around the world over the next eighteen months – comprises over thirty Marconi High Frequency (HF) 10kW transmitters fitted with Marconi Digital drives that process the voice and data information, making it suitable for HF transmission. HF systems are particularly suitable for secure long-distance communications. An on-shore amplifier at 10kW can broadcast information over many thousands of kilometres to a receiver – and so to a telephone, computer or printer.

Marconi Upgrades Argentina's Communications Network

Marconi Communications, the European broadband network leader, has won new orders worth around £7 million (US\$10 million) for equipment to upgrade Argentina's communications infrastructure. The Company's latest and most important contract to date is from Telecom Argentina, for optical bearer equipment to create a network of new rings serving business and residential customers in the cities of Cordoba, Rosario and Santa Fe.

Marconi Joint Venture Wins New Orders from Chinese Rail Ministry

Marconi Communications' joint venture company, Shanghai GPT, has won the first of a new series of orders from the Chinese Ministry of Railways (MOR), as part of a programme worth over 36 million (US\$10 million) to upgrade the communications system on the country's rail network. The agreement is a milestone in the fast-developing role of Marconi in China, as Shanghai GPT will supply the Ministry with products sourced from both its UK factory in Coventry and the Shanghai factory.

Fibreway Opens the Telecoms Gateway to Europe

Construction has started on Europe's most advanced urban fibre network. Connecting the hub of telecommunications operators located on London's Isle of Dogs, Fibreway Limited is building a network capable of carrying over 2,000 optical fibres – providing enough capacity for the entire population of the UK to make a simultaneous telephone call. Fibreway's Isle of Dogs network will interconnect with the Company's 1,300km national network – much of it along British Waterways' canals – which links every city in the UK and offers major portals to the principal European and North America markets.

Marconi Signs Two Deals in Brazil

GPT Payphone Systems, a division of Marconi Communications, and DARUMA, Brazil's leading payphone supplier, have signed a collaborative agreement to enable them to attack the US\$100 million Brazilian payphone market and other opportunities in South America. As part of a fixed network privatization programme, the Brazilian Government is set to double the number of payphones from 500,000 to over a million in a three-year timescale. This represents over 100,000 payphones per year.

Furthermore, Marconi Communications has reinforced its market lead in Brazil with a new £26 million order from the state telecoms company Telpar. This latest contract is for SDH (synchronous digital hierarchy) transmission equipment and a network management system, providing public and private telephony, plus links to the mobile phone system, for the state of Parana. Marconi will also supply long-distance communications for Parana, which is Brazil's second most industrialized region, covering an area of 200,000 sq km. The order strengthens Marconi's existing market leadership in the supply of telecoms network equipment to the country.

VIDEOJET

(website: www.videojet.com)

Cold Fill Returnable Bottle Ink



A trend in the beverage industry to move codes from the cap to the neck of the bottle has prompted the introduction of Videojet's latest *InkSource*® ink, the 16-8540. This new black, ketone-based ink has been formulated specifically to provide a clean, crisp code onto the neck of the bottle, an area where excessive condensation and subsequent handling, prevents many inks from providing acceptable codes. *InkSource*® 16-8540 exhibits superior adhesion to cold-filled returnable bottles at 2°C, with fast dry times of 1-2 seconds. The codes produced by this formulation offer excellent water resistance, including ice bucket immersion, but are also removable with standard 2-3% caustic wash. They do not fade on exposure to the sun and are resistant to typical food and beverage pasteurization and retort processes.

Videojet Triumph: Extraordinary Ink Jet Printing for Ordinary Applications

Videojet Systems International, Inc., has released the Videojet Triumph™ small character ink jet printer, a complete non-contact, ink jet imaging system that prints a variety of codes and messages in one-, two-, or three-line formats with additional features for custom applications. The Videojet Triumph is backed by *TotalSource*®,



Videojet's exclusive programme of complete customer support and services, including applications assistance, installation, operator training, technical support, maintenance, and field service. Only Videojet's *TotalSource* program provides customers with the industry's highest level of customer support, to ensure maximum coding productivity.

Adjustable Print Contrast and Bar Width Control for High Resolution Carton Printing



The new Videojet Apollo II Ink Jet Imager with NT Print Controller is a large-character, high resolution carton coding system that excels at printing bar codes, text and graphics onto corrugated containers or similar porous materials. Its high quality performance in this field of application results from the ability to adjust print contrast, as well as from features such as bar code width control, bar code magnification and vertical printing capability.

MATRA MARCONI SPACE

(website: www.matra-marconi-space.com)

The Birth of the First European Space Sector Company

The Lagadère and GEC Groups which, as of November 1990, had brought their space sector operations together under the structure of Matra Marconi Space, and which, in 1994, took over the space sector operations of British Aerospace, have signed an agreement with their new partners which will result in the birth of the first European space sector company. This company will integrate the space sector activities of Matra Marconi Space (51% Lagardère, 49% GEC), of Daimler Chrysler Aerospace AG and of Alenia Spazio. This new company will begin its life in 1999, after consultations between the partners and the granting of approval by National and European authorities.

AFRISTAR

– the first digital audio broadcasting satellite

The Afristar spacecraft, built by Matra Marconi Space for Alcatel as part of the Worldspace contract, was launched successfully from Kourou, French Guiana, on an Ariane 44L on 28th October 1998 at 22.16 (GMT). Worldspace has conceived and is developing the world's first global digital audio broadcasting satellite system. Matra Marconi Space is prime contractor for the Worldstar satellites while Alcatel Space being the prime contractor for the whole system which consists of four identical satellites: Afristar (21°E), Asiastar (105°E) and Ameristar (95°W) with the fourth, F4, as a ground spare.

The satellite system will provide multimedia broadcasting services, including audio, data and pictures, to an audience of more than 2.6 billion people all over the world. The high performance of the four spacecraft will allow reception by a new generation of low-cost radio receivers.

The payload was switched on during the 6th and 7th September and payload in-orbit testing began on 9th September. Singapore Telecom operators became involved in the operations activities from their Seletar ground station during the in-orbit testing. Control was then transferred to Matra Marconi Space operators at Chungwa Telecom's (CHT) Yangmingshan control centre on 27th September. CHT-I operations staff worked alongside the Matra Marconi Space controllers until control was transferred back to Seletar shortly before CPA (Certificate of Provisional Acceptance).

ST-1 Handed Over

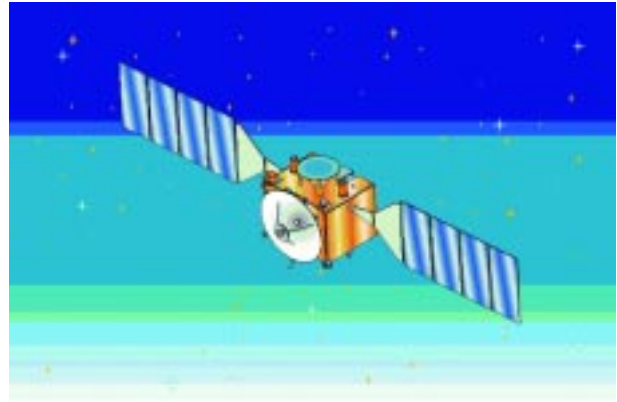


Singapore Telecom and Chunghwa Telecom Co. Ltd. accepted the in-orbit test results and took title to the ST-1 satellite in Singapore and Taiwan at 1400 hours (0600 GMT) on 26th October 1998. In-orbit testing, completed on 24th September, met all requirements for in-orbit acceptance and confirmed the excellent performance of the spacecraft.

ST-1 was launched successfully on an Ariane 44P rocket from Kourou on 25th August 1998, at 23.07 GMT. The spacecraft separated from the launch vehicle and was injected into orbit twenty minutes later with pinpoint accuracy.

Matra Marconi Space Picked for Mars Express

Matra Marconi Space has been recommended as Prime Contractor for the Mars Express spacecraft by the Industrial Policy Committee of the European Space Agency. The contract for the design and development of this first European spacecraft to visit the planet Mars is worth £45 million (60 million ECU/US\$ 70 million). Both French and UK sites of Matra Marconi Space will be involved. Development of the spacecraft should now proceed swiftly, to meet the deadline of an exceptionally favourable launch window early in



June 2003. The Mars Express spacecraft will be placed in an elliptical, quasi-polar orbit around Mars by Christmas 2003.



(website: www.picker.com)

510k Clearance for Picker's FACTS Makes Venue Concept a Clinical Reality



FACTS™, a fluoro-assisted computed tomography (CT) system developed by Picker International, Inc., has received 510k clearance from the US Food and Drug Administration (FDA). The FDA clearance of FACTS was the final step necessary to enable Picker to bring this new technology to medical sites world-wide. Venue™ is a system of integrated CT, X-ray and stereotaxis products, consisting of FACTS, PinPoint™ (an articulated frameless stereotactic arm), and a Picker CT scanner. Its multimodality capability allows radiologists to diagnose, intervene, and treat patients more quickly and more accurately, in the same room, in one episode of care.



(website: www.woods-fans.com)

Fans for Cardiff Millennium Stadium



Woods Air Movement has won a major contract to provide a complete air extraction system for the new Millennium Stadium at Cardiff. For the past year, the home of Welsh rugby has been undergoing a rebuild programme to create a new all-seater stadium with a closing roof. The Stadium will play host to the next Rugby World Cup and will be used for concerts and sporting events all year round.

The contract was awarded by stadium mechanical and electrical contractors Drake & Scull Engineering Ltd., who needed to find one company capable of handling ventilation and acoustic requirements on such a large and varied scale.

Fresh Air from Woods in Italian Tunnels

The world's longest six-lane motorway tunnel, the 7.6km long Cote de Sorreley, is at Aosta in the Italian Alps; and, along with the neighbouring 3.2km long Signayes tunnel, it handles motorway traffic coming from Turin in the South, from the Mont Blanc tunnel to France, and the San Bernard tunnel from Switzerland. Both tunnels are being ventilated with the latest generation of Jetfoil fans from Woods Air Movement Limited. Woods won the order to supply a total of forty-four 1.60m



diameter Jetfoil fans to the main consultant, the Società Iniziative Nazionali Autostradali (SINA). The order included the supply of fans, frames, anchors, sensor equipment and controllers.

Major Breakthrough in Fan Technology



The Compac-Climafan is a revolutionary fan design, developed by Woods Air Movement. The Compac-Climafan incorporates the latest in Woods' technology coupled to the new axial air-gap electric motor. Specifically designed for use in OEM heat transfer applications, where high performance, quietness and maintenance-free reliability are all factors, it is probably the most compact fan on the market for its rated output. Above all, the new fan is competitively priced, easy to install and can be produced to exactly high standards in large numbers.

MARCONI ELECTRONIC SYSTEMS

(website: www.gec-marconi.com)

US Lightweight Howitzer Programme Engineering Manufacture and Development (EMD)



The Land and Naval Systems (LANS) Group of Marconi Marine, formerly VSEL, Barrow-in-Furness received a major boost with the announcement that it has assumed the role of prime contractor from its team member, Textron Marine and Land Systems (TM&LS), to complete the development of the world's lightest long-range 155mm howitzer. The purpose of the programme is to replace the existing M198 howitzers in the US Marine Corps and US Army with the new system, designated XM777, a 9000 pound howitzer designed and developed by Marconi Marine LANS.

The XM777 is a unique lightweight howitzer capable of firing 155mm artillery projectiles to 30km whilst also being able to be transported rapidly under medium lift helicopters to the theatre of operation. The system's unconventional design plus the extensive use of lightweight materials, including titanium and aluminium alloys, makes it a world leader in the towed artillery market.

Marconi Seaspray Order for Edinburgh

Marconi Avionics has been awarded a contract by the German Federal Office for Defence Technology and Procurement (BWB) for Seaspray radars that will equip Federal German Navy Lynx helicopters. The contract is valued at more than £15 million and is the largest order for Seaspray radars to be awarded to the Company. The contract will ensure continued production of

Seaspray radars in Edinburgh until 2002. The order builds on 30 years of association between the Seaspray radar and the GKN Westland Lynx helicopter, during which time Marconi has supplied over 400 radars.

Marconi/Honeywell Production Standard Helmet Mounted Sighting System (HMSS) Flies on Jaguar '97



The production standard Marconi/Honeywell Helmet Mounted Sighting System (HMSS) has been flown, for the first time, on a Royal Air Force (RAF) Jaguar GR3A aircraft (No. XZ399) at the Defence Evaluation Research Agency (DERA) site at Boscombe Down. The HMSS is being added to the aircraft as part of the Jaguar '97 upgrade package to provide a lightweight, reliable, low-cost solution to cueing, sensor slaving and off-bore-sight missile aiming requirements. The system will be used in conjunction with the Marconi Thermal Imaging and Laser Designator (TIALD) pod and the Matra-BAe Advanced Short Range Air-to-Air Missile (ASRAAM).

RAF Tornado AMLCD Displays Contract

Marconi Avionics has announced the award of a contract by the Royal Air Force, valued at more than £30 million, for the supply of latest generation Active Liquid Crystal Displays (AMLCD) colour displays for their Tornado aircraft. The RAF programme is designated Television Tabular

Displayed Displays (TV-TADs). The initial contract award covers 24 units to be delivered over the next 15 months. Options exist for further blocks of 200, 300 or 400 displays for the remaining RAF Tornado fleet. The new display is based on Active Matrix Liquid Crystal Display (AMLCD) technology developed by Marconi Avionics in Edinburgh. The new display has high brightness for use in full sunlight, and is fully compatible with Night Vision Goggles for night operations.

Marconi Launch Production for Eurofighter Typhoon ECR90 Radar

Marconi Electronic Systems has announced the award of a contract by British Aerospace for production of the ECR90 radar that will equip the Eurofighter Typhoon. ECR90 is a next generation high performance pulse Doppler, multimode radar, and is the primary sensor for the aircraft. The contract covers an initial batch of 147 radars and spares that will meet the production requirements for the first tranche of Eurofighter Typhoon aircraft to be built by the Eurofighter consortium for the four partner nations – Germany, Spain, Italy and the UK.



(website: www.aleniamarconisystems.com)

First Flight of Brimstone

On 17th December 1998, a MoD (PE) Tornado ground attack trials aircraft successfully flew the first handling and clearance flight trial with 12 Alenia Marconi Systems' Brimstone missiles. Alenia Marconi Systems and British Aerospace Military Aircraft & Aerostructures (BAe MA & A) jointly conducted the trial of the advanced anti-armour weapon from BAe's Warton facility in Lancashire, UK. The first flight on Tornado represents the successful achievement of the latest milestone in the programme which commenced in November 1996.

Elusion Delivered to RAF

Alenia Marconi Systems has delivered four Elusion Electronic Warfare Training Systems to the Royal Air Force (RAF). Elusion is being used by the Air Warfare Centre, Operational Doctrine and Training Department (OD&T) at the RAF College Cranwell to provide a new dimension to their Electronic Warfare and other specialist training courses. Elusion enables the user to create an Electronic Order of Battle (EOB) that is superimposed onto a 3-D terrain map derived from

Digital Terrain Elevation Data (DTED). In this virtual 3-D world the RAF can plan and 'fly' in a realistic environment over an accurate representation of the real-world terrain in their operational area.

SAWCS Contract Awarded

Alenia Marconi Systems has been awarded a contract for £40 million plus for the UK's Submarine Acoustic Warfare Command System (SAWCS). SAWCS provides the Royal Navy with an effective defence against the latest generation of torpedoes.

HMS Invincible Combat System Upgrade

Alenia Marconi Systems has been offered a major contract to upgrade HMS *Invincible's* combat system. The upgrade will bring the ship's combat system up to the same standard as those fitted to HMS *Illustrious* and HMS *Ark Royal* and includes the introduction of an all-colour Operations Room.

REDRING®

(website: www.redring.co.uk)

AD1 Auto-dry Hand Dryer



The stylish AD1 Auto Dry hand dryer is the latest addition to Redring's Washroom Solutions range, combining ultra-modern looks and the ultimate in hygienic operation together with value for money. Designed for light to medium usage installation where hygiene is a prime consideration, the AD1 is ideal for surgeries, clinics and food preparation areas. Both lightweight and compact, the new 1.5kW hand dryer will also add a contemporary touch to the small office environment.

Advantage Pumped Electric Shower



Innovative and stylish in design, the new Advantage Pumped Electric Shower from Redring is the ideal solution for installations where there is insufficient water pressure for a traditional instant electric shower. Plumbed directly into the cold water cistern, the Advantage will heat water instantly. As the Advantage incorporates a 230/240V motor and pump assembly to boost water flow, it can deliver up to 7 litres of water per minute. Simple to use, the Advantage features a single numbered rotary control for start/stop and flow/temperature selection and a separate rotary knob for high or low-power selection.



(website: www.averyberkel.com)

Totalgaz and Avery Berkel Develop New Stand-alone Solution for Gas Filling

Totalgaz, a division of Total Oil Great Britain Ltd, has placed orders worth £100,000 with Avery Berkel to introduce the most accurate and efficient LPG filling machines to its liquid petroleum filling plants. As one of only four gas filling companies with ISO 9000 approval, Totalgaz trades on quality and reliability.

In the past, LPG industries requiring the benefits of digital weighing have had to endure cumbersome installations, with equipment located in bulky 'flame-proof' enclosures. For safety, LPG filling operations are normally located in areas remote from main buildings. Cabling to these areas is not always viable.

Employing the proven Avery Berkel Loadstar Ex intrinsically-safe indicator, winner of



the prestigious MIAA award for development within industry, Totalgaz has now brought the benefits of precision weighing into its filling process.

Working in partnership, Totalgaz and Avery Berkel have moved the LPG filling industry into the 21st century, with the development of a safe, ergonomically designed electronic gas cylinder filling system. This potentially creates the most accurate gas filling system in the UK today.

Calor Gas Continues to Invest with Avery Berkel

Calor Gas has placed a further order with Avery Berkel for 31 stand-alone R217Ex filling machines – Avery Berkel's latest development for the LPG industry. The package includes data capture to a safe area PC at three of their filling sites in the UK. This order follows the successful installation of ten carousel-mounted LPG filling scales at their Grangemouth plant, believed to be the first all-electronic filling carousel in the UK LPG industry.

Calor Gas has been working in conjunction with Avery Berkel for over eighteen months, developing the software within the Avery Berkel intelligent industrial indicator in order to meet the exacting requirements for filling procedures within its plants. The new system ensures maximum filling accuracy, ease of operator use and meets safety requirements.