

GEC-Marconi and Thomson-CSF form new joint venture company



The TGV Atlantique high-speed train.

Texas says "yes" to TGV

THE BOARD of Texas High-Speed Rail Authority has voted in favour of adopting GEC ALSTHOM's TGV high-speed train technology for a new rail network to link-up the state's major cities.

By choosing GEC ALSTHOM technology, the nine-member Board appointed by the Governor of Texas decided a high-speed rail system was in the state's public interest and that the TEXAS TGV Consortium was best qualified to finance, build and operate the network.

The TEXAS TGV Consortium is led by the US firm Morrison Knudsen and includes Mannai Investment and Texan interests with which GEC ALSTHOM, Bombardier and Sofreral are associated. It won a stiff, two-year battle with another consortium which proposed to use German technology.

The plan is to link Houston, Dallas, Fort Worth, San Antonio and Austin by 200-mph trains running on a triangular high-speed network of over 622 miles.

This important decision in

Texas demonstrates that the technical and financial success of TGV technology proven in commercial service for French national railways (SNCF) has been recognised in the United

States. It also illustrates the effectiveness of the partnership that GEC ALSTHOM and Bombardier set up to promote TGV technology in North America.



The Belfort TGV powercar and locomotive manufacturing workshop in France.

TO DEVELOP ACTIVE ARRAY ANTENNAS

GEC-Marconi and Thomson-CSF have signed an agreement to form a joint venture company called GEC-Thomson Airborne Radar (GTAR). The company will develop and market active array antennas for next generation combat aircraft radar systems. The capital of the joint venture will be owned in equal shares by the parent companies.

GTAR unites the lead contractors on Europe's two most advanced airborne radar programmes — the European Fighter Aircraft's ECR 90 and the French Rafale's RBE2. GEC Ferranti is prime contractor for the EFA radar programme.

Other companies in both the United States and Japan are working on active array radars for the next century. By joining forces, Thomson-CSF and GEC-Marconi are enhancing the future of Europe's radar business in the face of strong competition.

The parents will also provide the joint venture with the crucial enabling technologies such as gal-

lium arsenide microwave monolithic integrated circuits, which form the key building blocks for active array antennas.

Active arrays scan the radar beam by purely electronic means without mechanical movement. This allows very rapid beam movement which confers many operational advantages. The elimination of moving parts has very positive effects on reliability and maintenance costs over the life-time of the equipment.

Thousands

The active array will be constructed from thousands of tiny solid state modules, each one acting as a mini-radar in its own right. When an array of such modules is controlled by a master computer the composite behaviour provides improved performance over conventional radar techniques. The modules use gallium arsenide semiconductors to process the very high radar frequencies and the array will use fibre optics to handle the immense flow of data.

\$50 million fuel pump order for Boeing 777

A CONTRACT worth potentially over \$50 million has been awarded to GEC Aerospace, Titchfield to supply the fuel boost and override jetson pumps for the new Boeing 777 aircraft. Initial deliveries will begin in mid-1993.

GEC Aerospace staff worked throughout the Christmas period to produce a demonstrator unit which confirmed the pump's performance predictions.

Four fuel boost pumps and four jetson pumps are located in the wing and centre tanks on the aircraft. The pumps provide a variable supply of high quality fuel to the engines.

GEC Aerospace now supplies the fuel pumps on the majority of modern commercial aircraft, including the Boeing 737, BAe 146 and Airbus A320/A330/A340.

INSIDE TOPIC

Channel tunnel participants Pg 4

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Learning with GEC Pg 6

Air UK competition winner Pg 10

Clear tv pictures for Hawk jet pilots

GEC Sensors, Basildon is to supply additional forward looking infra-red (FLIR) systems for installation in the British Aerospace Hawk 100 jet aircraft. These new orders, worth more than £3 million, follow on the success of the development and export production contract previously awarded by British Aerospace for a similar equipment.

The FLIR, supplied by the Electro-Optical Military Division, will provide the light, ground attack Hawk with an enhanced mission capability during the day, at night and in poor visibility conditions, thus maximising aircraft utilisation.

The system is configured to match the tight space envelope in the nose bay of the aircraft, with the thermal imager looking directly ahead through a window in the nose. The FLIR is housed in the upper part of the bay with a GEC Ferranti laser rangefinder positioned underneath.

The thermal image of the scene ahead of the aircraft is presented as a clear TV picture shown in the cockpit on the pilot's head up display, together with additional aircraft avionics information. The system is fully automatic in operation to avoid increasing the workload in the cockpit.

ation of low weight, high strength, and cooling efficiency in the aircraft's restricted available space. The Electronics Unit includes space provision for future growth in performance and capability.

As part of the family of modular thermal imaging sensors (M-TIS) developed by GEC Sensors, the electronic modules of

the Hawk system are compatible with the in-production modules of the other FLIR systems in the range. The equipment thus retains the advantages of built in test equipment and single module replacement for easy maintenance. The front window in the nose of the aircraft is also designed as an independently removable module.

Launcher for electro thermal gun research

MARCONI Command and Control Systems (MCCS), Frimley has been awarded a contract in excess of £7 million by the UK Ministry of Defence to provide an electrically powered launcher facility at Kirkcudbright in Scotland for the Royal Armament Research and Defence Establishment (RARDE).

The contract is to provide a complete facility for hypervelocity ballistic research with electrically propelled projectiles. The facility will take some two years to complete, and is part of a development programme funded jointly by the governments of the United Kingdom and the United States of America.

The facility is designed for research into the effectiveness of

electro-magnetic launchers, and may also be used to experiment with electro-thermal and coil guns. These technologies potentially can launch projectiles at far greater velocities than conventional chemical discharge guns, giving significant benefits in range, accuracy and armour penetration. Possible applications include main battle tank armament.



The 6580 transmission line measurement system.

Locates faults in Tornado cables

ST. ALBANS based Marconi Instruments, 6580 transmission line measurement system is helping the RAF to maintain its Tornado fleet, by providing accurate fault location in cable runs within the aircraft.

The 6580 can rapidly locate the precise position of a fault by analysing the reflected signal from any discontinuity encountered in the cable. In front line situations the ability to find faults in this way is vital as it eliminates the need to gain access to every point on a cable to find a fault. The instrument can also measure insertion loss of cables using a detector located up to 25 metres — or longer — away from the instrument.

Marconi Instruments 6580 was chosen because it is unusual in not requiring additional computing facilities to carry out the measurements and is therefore transportable in the field. Ease of use was another key factor, and the sophisticated built-in software guides the operator through all measurement tasks.

The Royal Navy has also ordered a system for identifying faults in radar and electronic warfare systems.

Variant

A variant of existing production equipment, the Hawk FLIR system comprises two line replaceable units (LRUs), the sensor head and the electronics unit. The units are constructed using a dip-brazing technique which provides a unique combin-



Wayne gives a lift to New Zealand

TO MARK the expansion of the Express Lift Company in New Zealand, Wayne (Buck) Shelford, former captain of the New Zealand All Blacks rugby team, made a visit to the company's headquarters in Northampton. Wayne had been playing for the Northampton Saints rugby club, helping them to the final of the Pilkington Cup.

The company has operated in New Zealand for 80 years through a distributor, but recently launched its own company, GEC Express Lift (NZ) Ltd, opening offices, sales, service, repair and reconstruction facilities in Auckland.

Wayne's visit to Northampton coincided with further investments in New Zealand with the opening of premises in Wellington and Christchurch.

The picture shows Wayne (left) being shown round the Northampton plant by finance director, David Cale-Morgan (centre) and sales director, Mike Eley (right) of Express Lifts.

MUSL study update for submarine sonars

MARCONI Underwater Systems (MUSL), Waterlooville has won a multi-million pound contract to produce a comprehensive study of the system and implementational requirements of the latest sonar system to be fitted to the UK in service submarine fleet. This sonar will

form the backbone of the in-service submarine tactical weapon system into the 21st Century.

The improvement in sonar array performance required will have a major impact on the operators ability to process large amounts of acoustic data. The project definition study will evaluate all candidate solutions leading to the generation of a firm system definition for full development and initial production. Particular emphasis will be placed on technical and programme risks.

This is the third major sonar contract to be awarded to MUSL by the UK Ministry of Defence in support of the In Service Submarine Update programme.

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GPT helps upgrade Chinese telecom network

GPT, Beeston is supplying the advanced iSDX private switching system to a provincial government in the People's Republic of China as part of a five-year plan to upgrade the telecommunications network of the country.

The Hu Bei provincial administration has ordered four iSDXs (integrated services digital exchanges) with a total of 5,000 lines to improve the communication network between offices in Wuhan and ultimately to outlying areas in the province and

with the central administration in Beijing.

For Hu Bei province, this represents the first step towards improved office automation by combining voice and data communications. This is in line with a five-year plan which began last year to modernise the communications, energy and transport infrastructure of China.

The Hu Bei contract is being handled by the Shanghai International Digital Telephone Equipment Company (SIDTEC), a GPT joint venture which has spearheaded the success of the iSDX in China. A technical breakthrough was the development of an iSDX software interface for China No1 signalling used on the public telephone network.

To date, SIDTEC has completed major contracts with the Ministries of Foreign Economic Relations and Trade, Radio and Television Broadcasting, Railways, Construction and Human Resources.

The head of the Management Bureau of General Affairs and Organisations, Ma Guoxun, said Hu Bei had chosen the iSDX because its functions and features were the most suited to the needs of the government.

GEC ALSTHOM to build Spanish commuter trains

THE Spanish State Railway Company, Renfe, has awarded GEC ALSTHOM and its three Spanish subsidiaries (Makinista, Ateinsa and Meinfesa) a major contract to build double-decker commuter trains.

The order, worth around £150 million, is for 30 double-decker self-driven power cars and 15 double-decker UT 450 model type commuter train units (each made-up of two motor coaches and four passenger coaches).

The double-decker series will be delivered to Renfe in 1993 and 1994.

This latest order confirms, the quality of GEC ALSTHOM's

technology for double-decker trains which several European countries manufacture under licence. A total of 2,500 double-decker passenger coaches and 530 double-decker motor coaches have been manufactured to date by GEC ALSTHOM, particularly for the French Railways (SNCF) and by the European licensees.

The contract follows an order awarded by Renfe to a consortium headed by CAF and including GEC ALSTHOM's three Spanish subsidiaries to supply UT 446 model type commuter trains. This order will be worth around £65 million.

Marconi teams up to market train simulators

MARCONI Simulation, and GEMCO, the Rail Manufacturing and Technology subsidiary of Futuris Corporation based in Western Australia, have recently signed an agreement to collaborate in the marketing throughout the world of advanced train simulation systems.

The two companies will supply advanced driving simulators, support and service to freight and passenger networks. The systems will provide cost effective and accurate training of train drivers and analysis of train driving strategies.

The worldwide marketing agreement teams together two of the industry's recognised leaders in the field of train driving simulators and represents what is believed to be a world first in the rapidly expanding area of train simulation systems.

Marconi Simulation has supplied train simulators to Seoul Metropolitan Subway Corporation, Singapore Mass Rapid Transit and British Rail Regional Railways. A contract was awarded recently by the Kowloon Canton Railway Corporation and this simulator is due to

be installed mid 1991.

GEMCO acquired the train simulator technology and business of ACET in November 1990. ACET supplied train driving simulators to Hamersley Iron, BHP Iron Ore and Queensland Railways in Australia and to SBB (Swiss Railways) in Switzerland. GEMCO will deliver its first simulator to Victorian Railways (V Line) later this year.

Alan Bowden, general manager of GEMCO, said "This agreement between GEMCO and Marconi Simulation will offer rail managers totally integrated solutions, utilising the latest simulator technology, to meet their train simulation needs". The train driving simulators will be configured for the needs of particular customers and, as required, will incorporate advanced graphics

GEC-Marconi in European group promoting computers

The European Commission, Philips, GEC-Marconi, Carlo Gavazzi Systems and TNO have launched a three year project to promote the use of computers in manufacturing industry. Project MICIM (Methodology for the Introduction of computer integrated manufacturing) has a three pronged approach to explaining to companies the principles and potential benefits of introducing computers into their operations:

1. Most of the project's effort is going into producing working demonstrations of a wide range of computer based and computer aided systems in four factories in France, England and Italy.
2. An uncomplicated methodology for introducing computer integrated manufacturing techniques and technology into existing businesses is being developed in two stages and will be made available to European companies through training workshops and guidance literature.
3. An awareness and technology transfer programme brings technology and ideas from all over the world to interested European companies, through meetings, presentations, articles and personal contact. Members of the project will act as information centres and brokers in the transfer of appropriate solutions from suppliers to users.

The project is part of the European Strategic Programme and Development in Information Technology (ESPRIT).

Demonstrations

The project's four implementation sites will be holding system demonstrations every six months during the project. At different times, systems for shop floor control, order handling, lot scheduling, design evaluation, quality assurance information management, product configuration control and other design, planning and manufacturing functions will be demonstrated.

The methodology will be published as a two volume implementation guide and presented at two public seminars, one half way through the project and the other at the end. The first volume and seminar will cover modern manufacturing and integration concepts and the second will deal with the introduction of those principles into existing, operational manufacturing businesses.

Technology Transfer

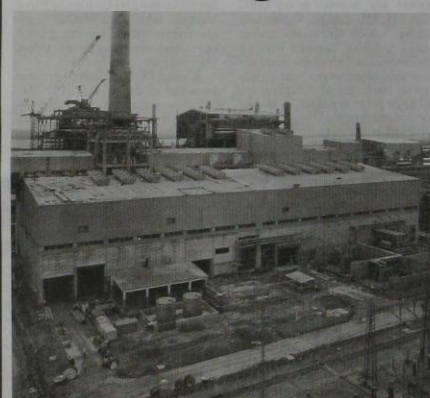
The project will be devoting considerable resources to publishing its methodology and

demonstrations. It will also be presenting the case for computer integrated manufacturing in general and promoting the use of products and ideas from around the world.

Presentations

Presentations, articles and personal contacts will be important channels for the project's efforts, which will also promote two of the project members (GEC-Marconi Research Centre, Great Baddow and TNO in the Netherlands) as centres of expertise in computer integrated manufacturing.

More power for Chinese grid



THE FIRST generating unit of the Yue Yang power station (pictured above), which houses two units at 360 MW each, has now commenced supplying power to the Hunan Province in the People's Republic of China. GEC ALSTHOM, the turnkey supplier, North-West China Electric Power Plant Construction contractor, the main erection contractor and Huaneng International Power Development (HIPDC), the purchaser are on target to commission the whole power station in accordance with the programme set by HIPDC and the Hunan Provincial Government.

capabilities, authentic audio and motion systems and the most detailed train dynamics modelling available.

The simulation system products will be backed by the Marconi Simulation and GEMCO International sales and support network.

Essential

Dr. Les Grant, general manager of Marconi Simulation, said "It is becoming apparent, to an increasing number of rail authorities, that train simulators are becoming essential tools required for efficient and effective driver training. Our two companies, with a combined staff of over 500 employees in the United Kingdom and Australia and agents throughout the world, will provide a level of service and support to the international rail market previously unavailable in this area".

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NNC to build new waste water treatment plant

NNC, Knutsford has been awarded a contract to design, supply, install and commission a new waste water treatment plant for the North London Waste Authority. The plant is valued at over £1m and will be the first of its kind in Britain.

The Edmonton solid waste incineration plant which generates up to 30MW of electricity, burns 1200 tonnes of municipal and other wastes per day. The effluent treatment plant will remove liquid and solid contaminants from the waste water arising in

the operation of the incineration plant.

The treated waste will eventually be discharged back to the Thames Water Authority sewer. The plant is designed to meet present and more stringent limits on waste discharges.

The new waste water treatment plant will provide a purpose designed facility to reduce suspended solids and dissolved salts and heavy metals contained in the raw effluent feed, to levels suitable for sewer discharge.

The variability of feed volumes (30-120 m³/hr) and compositions, characteristic of the effluent arising from the waste incineration plant, have been important features in NNC's development of the flowsheet for the effluent treatment plant.



Energy from waste

FOUR steam turbines (pictured above) supplied by AEI Turbine Generator Division, Manchester, now part of GEC ALSTHOM Turbine Generators, have been in operation at the Edmonton solid waste incineration plant for over 20 years. The refuse plant, the largest in the country, is only one of five incineration plants having any form of energy recovery.

The 12.5 MW turbo-generators are driven by steam generated from five boiler units that fire the incineration of waste from the North London area. Last year the plant sold 191,000 MWh hours of electricity from 400,000 tonnes of waste.

Leading the way under the Channel

MANY GEC companies are involved in the Channel Tunnel project which is now nearer completion after the link-up of the first train carrying section. There are three tunnels being built, two rail tunnels and a service tunnel which was linked last year.

Leading the way through the tunnel are motors from GEC ALSTHOM Large Machines, Rugby, which drive the cutter heads on the tunnel boring machines. Cool air is required for these machines to prevent an excessive build up of temperature and to provide satisfactory working conditions. Woods of Colchester multi-staged contra-rotating fans are supplying the necessary ventilation.

Weighing

GEC Avery, Warley has supplied five weigh bridges for the venture. Two of these were used for weighing precast concrete segments used in construction of the tunnel. Two were used for checking materials into the Ashford site and one was used at the entrance to the tunnel.

GEC ALSTHOM Measurements, Stafford has received a number of orders for the project. These include recent contracts valued at £750,000 to supply all

the protective relay equipment for all voltage levels for the three tunnels. GEC ALSTHOM Measurements' relays are being used to protect overhead lines, cables, transformers and busbars.

A giant £580 million order was awarded to a GEC ALSTHOM-led consortium for the supply of 30 high speed Transmanche Super Trains (TMST). These are the passenger trains which will link Paris, Brussels and London starting in 1993.

A main participant in the TMST trains is GEC ALSTHOM Traction, the electrical design leaders who will manufacture approximately half the high technology, asynchronous drive

system in their factories at Trafford Park, Manchester and Preston. GEC ALSTHOM Transformers, Stafford is supplying half main power car transformers and Redring at Peterborough, the surge suppression resistors.

GEC Plessey Semiconductors at Lincoln will provide many of the sophisticated power electronic devices used in the train propulsion system.

GEC ALSTHOM Transportation Projects/Metro-Cammell will assemble 15 complete trains and fit out 240 trailer cars at Washwood Heath, Birmingham where a special test track is being built for the complete British Rail TMST trains which are nearly a quarter of a mile long!

Both the GEC Marconi Research Centre, Great Baddow and the GEC ALSTHOM Engineering Research Centre (ERC), Stafford are carrying out research on the communication system and programme logic controller systems for the TMST. A laboratory simulator has been built at ERC, Stafford, with assistance from GEC ALSTHOM Measurements.

Customers old and new for EASAMS

EASAMS's Naval Division in Camberley has won two contracts in the underwater warfare studies market, one with the Director of Future Projects Navy, DFP(N), and the other with one of its oldest customers, the Studies Department at the Admiralty Research Establishment (ARE), Portland.

EASAMS fought off strong competition to secure the DFP(N) contract. The contract, a futuristic concept study, will examine submarine sensors for the 21st century. The work will

involve theoretical performance assessment and the development of a computer model for appraising the practical implications of the proposed new sensors.

The new contract with the ARE is the latest replacement for a series of submarine assessment study contracts which began back in 1977. Over the years the studies have formed the foundation for future submarine design encompassing all new submarine classes and proposed weapon system updates.

Satellite lorries keep in touch

MARCONI Speech and Information Systems, Portsmouth has been awarded a contract by Inmarsat to develop a voice driven interface for Inmarsat-C, a mobile satellite communications systems which can be fitted into vehicles.

Using satellite technology, the system will give trucking companies a world-wide system for controlling their fleets especially those with long distance hauls.

The interface will turn spoken messages from the driver into information which can be transmitted back to his base via the Inmarsat-C satellite. For example updates can be sent on position, state of the cargo and customs documentation. The system also works in the opposite direction with text messages sent to the driver being turned into a spoken message in the cab.

This means that information can be sent and received without the driver ever taking his hands off the wheel or his eyes off the road.

This is the first system of its kind for trucks. One of the major problems in developing the interface will be overcoming the noise and vibrations characteristic of the environment inside a truck. If they are successful, the system may later evolve into a "global network" for private motorists.



Doug Dunn (right) pictured with John Walko, editor of the Electronics Times.

GEC wins four Tobie awards

GEC has won a total of four categories in this year's Tobie (Technical or Business Innovation in Electronics) awards.

The awards are organised by the Electronics Times, one of the UK's leading electronics magazines and the Evan Steadman group. The winners are decided by the readership who vote for the product, person or company that they believe to be the most deserving.

Three awards were presented to GEC Plessey Semiconductors (GPS), Swindon, the first time in

the 11 year history of the awards that a single company has won so many categories in one year.

Doug Dunn, managing director of GPS, was voted the electronics industry personality of the year, GPS won the category of exporter of the year and the company's PDM system for creating and testing mixed signal circuits was named product of the year.

Marconi Instruments, St

Albans won an award for its recently launched high performance testers for the electronics manufacturing industry.

The company's MIDATA 515 was voted for the Tobie award as the most innovative automatic test equipment achievement of 1990.

Peter Smith, managing director of Marconi Instruments and Doug Dunn both expressed pleasure in receiving the awards which reflected the hard work and skills of their staff.

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Production manager helps Romanian children

GORDON Harrison, product manager for Creda, Stoke-on-Trent has been actively involved in a national appeal, 'Children of the Revolution', launched by the relief charity Help International to help Romanian children.

The appeal is to raise over £100,000 to convert a building in Cluj, Rumania into a hospice for children suffering from AIDS.

Gordon's contribution was to come up with an idea that would raise money to finance the emergency relief work. In his previous job he travelled widely and found that he ended up with

a car cluttered with unwanted petrol tokens. It occurred to him that if motorists throughout the UK were to send in tokens they could be used to raise money.

He contacted Help International and together they came up with a plan to help care for the unwanted children. Later a number of petrol companies agreed to redeem petrol tokens for cash or for urgently-needed materials and supplies for the 'Children of the Revolution' hospice.

Gordon also helped boost the appeal when he took part in an interview with top radio personality, Derek Jameson.

Gordon said "the appeal has the support of all the major oil companies, as well as Air Miles, Green Shield, Blue Chip and Co-op. All GEC sites can help by collecting tokens and stamps and sending them in an envelope marked GEC to Help International, PO Box 600, Wolverhampton, WV2 4RR". He also suggests collection boxes in reception areas, canteens and sales offices.

Gordon is planning a trip to Cluj and Brasov in September, to take medication out to hospitals. For the trip he needs some space (100 sq metres, preferably in Birmingham) to use as a temporary store for the medicine. Can anyone help?

GAY OXLEY has joined GEC as the new manager of the Alcohol Advisory Service, a position which has been vacant for a few months due to the unexpected death of the previous manager, Bob Randall.

Gay brings considerable experience to the position having worked in the alcohol advisory field in both private and community sectors for over 12 years, which includes seven years as manager of a residential and day centre for people with drink related problems.

Gay's responsibility will be to continue the good work of Bob Randall and provide GEC with an effective 'alcohol in the workplace' policy. Because the position has been vacant for a few months, Gay will need to review the current situation before resuming the normal advisory and training role for the various site counsellors and management.

Although it is important to provide treatment when necessary, Gay believes that educational preventative measures have an increasingly important role to play. "Witness for example the effectiveness of the publicity campaign which succeeded in fundamentally changing people's

New chief for GEC alcohol advisory service

attitude to drinking and driving".

GEC has taken a pioneering stance in providing an alcohol advisor for the past eleven years and this new appointment underlines the company's continuing commitment to this service. Anyone wishing to voluntarily seek advice or information can be

assured that it is a completely confidential process.

On a national basis, drink related problems in the workplace have shown a small but steady increase, so there is obviously no room for complacency. Because of the enlightened attitude of GEC, the problem is at least being recognised and significant and constructive attempts are being made to provide the right kind of advisory service. "In this respect we know that the company is doing very well" says Gay "and we know that we want to do even better".



Gay Oxley

Information

Should you need any advice or information, please contact your site counsellor or Personnel Department. Gay Oxley can be contacted at her Rugby office, her telephone number is (0788) 531582.

★ TOPIC COMPETITION ★

Take the time to win a watch with Sekonda

TOPIC readers have the chance to win one of the special offer Sekonda watches with this free to enter competition. Six lucky winners will be able to choose which watch they would like.

All you have to do is find the following eight words hidden in the word search. Ring the words as you find them, state the model number of the watch you would prefer as a prize and send your entry to: Topic, GEC, 1 Stanhope Gate, London, W1A 1EH. Please mark your envelope Sekonda Competition.

TIME QUARTZ CHAMPAGNE HOUR
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R M D M I N U T E
A B U E P Z R F W
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ENTRY FORM

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Company

Prize

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July 19 1991

SEKONDA is offering GEC employees a special offer on six different quartz analogue watches. All the watches guaranteed (except batteries) for twelve months.

The watches are described below in the order they appear in the picture from left to right.

Model 3359 - Gents Sekonda gold plated quartz analogue date watch with link integral bracelet. Champagne dial with gilt batons. Black Roman numerals and black minute track. Gilt hands and sweep seconds hand.

Model 4275 - Ladies Sekonda gold plated quartz analogue watch with link integral bracelet. Champagne dial with gilt batons, black Roman numerals and black minute track. Gilt hands and gilt sweep seconds hand.

Model 3404 - Gents Sekonda gold plated quartz analogue watch, with day-date 24 hour dualtime features. Champagne dial with gilt dots and gilt batons. Black inner dial tracks (circled in Gilt). Brown leather strap.

Model 4203 - Ladies Sekonda gold plated quartz analogue perpetual calendar moon phase watch. White dial with black Roman numerals and minute track. Leather strap.

Model 3393 - Gents Sekonda gold plated quartz analogue watch. White dial with black Roman numerals. Black hands. Black leather strap.

Model 4324 - Ladies Sekonda gold plated quartz analogue watch. White dial with black Roman numerals, black minute track and black inner circle. Black leather strap.

All the models on offer have stainless steel casebacks.

TOPIC/SEKONDA ORDER FORM

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3393		£14.99	£34.99	
3404		£25.99	£49.99	
4203		£16.99	£44.99	
4275		£20.99	£39.99	
4324		£ 9.99	£25.99	
TOTAL				
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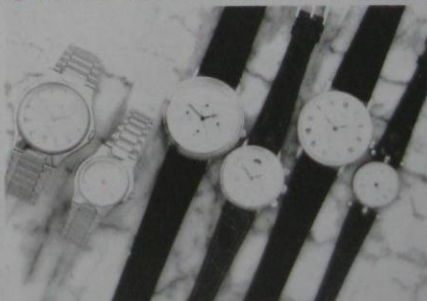
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With most of its workforce in the UK, GEC has to be a high technology business, competing in world markets on the ability and energy of its people.

GEC recruits more engineering graduates than most other companies, but recognises that this alone is not enough. Technology advances, markets and customer needs change. Our managements have to cope with changing situations. GEC promotes learning. Few people reach the peak of their careers without learning. There is always more to learn about our job and our society. Learning is a natural activity. It is like breathing.

GEC expects its people to go on learning, and to bring to the job varied experiences, backed up by formal education at its Management College at Dunchurch near Rugby. (800 places on the new Personal Development Programme). Should we all be asking ourselves and our colleagues recently?

A new look at Dunchurch

DUNCHURCH is used extensively by groups of GEC managers who, having a common professional concern, meet to share their experiences, to learn from their successes and failures, to develop their expertise collectively in the context of the needs of GEC and their businesses and to determine their way forward.

The decentralised structure of GEC is one of its strengths. Decentralisation calls for a place where common interests meet, and where we can each learn from the other. Dunchurch is well placed, organisationally and geographically, to fill that role.

At the National Young Employees Competition to be promoted by Dunchurch at the Stoneleigh Showground, Warwickshire, 6 to 8 September 1991, seventy teams of young GEC employees, representing many GEC units, will compete and learn together, whilst also having "knock out" fun. To see the teams' enthusiasm, each

flying the flag of their business, is impressive for any GEC employee. It illustrates the diversity and scope of the company, quite apart from the energy of its young people. Come along and watch, with your family.

Several Dunchurch courses are now accredited for 'points' towards master degrees or diplomas. This ensures the quality and level of these courses whilst giving the participants pathways to qualifications if that is what they want.

The courses currently accredited are: The Dunchurch Management Development Programme; Diploma in Manufacturing Management; Diploma in Management of Design; DMS (at the Chelmsford Staff Development Centre); Management Through People; Audit and Assessment; Project and Contract Management; Developing Leadership Skills and more will follow. This is a further example of co-operation between higher education and in-

dustry to meet the challenge of the market place.

Dunchurch has been physically revamped during the last twelve months. A tree lined drive leads to a new reception point. There is ample car parking. There is a new purpose built suite of 21st century offices in the walled garden. There is a new kitchen, a new lounge bar near the dining room, a covered way from the bedrooms to the college, phones in the ensuite bedrooms and a new library.

There are now ten refurbished seminar rooms and twenty syndicate rooms which provide space for up to 140 participants on programmes, of whom nearly 100 can be in residence.

New staff manage a wide range of learning activities including; in-plant workshops and team building; general management at middle and senior level; professional courses in finance, commercial practice, manufacturing, design and project management, leadership and management of people; development training to enhance personal skills; self-learning packages using audio and video.

PAUL WATTS

Dunchurch will have a new director in July. Paul Watts, recently left the Army and joined Dunchurch as manager of Dunchurch tutored learning, and is taking over from Geoffrey Holroyde. Geoffrey is retiring although he will be available part time to promote GEC ALSTHOM and GEC management development.

Paul had a distinguished career in Army education. His posts included three years on the directing staff at the Royal Military Academy, Sandhurst, three years as a lecturer at the Armed Forces University, Shrivenham, commanding the Royal Army Medical Corps Apprentice College and two spells in the Ministry of Defence.

Paul holds a degree in Economics (Cambridge) and a post graduate qualification from the London School of Economics.

PDC is there to help you

IN THE December *Topic* you read about the personal post experience development programmes for GEC people at post graduate level.

These programmes, available through the Personal Development Consortium (PDC) a consortium of GEC companies, polytechnics and universities. By forming it, GEC has pulled off a 'first' in co-operative ventures with higher education.

In its first year of operation, GEC companies have committed themselves to over 800 enrolments. That is a great start, and the number will grow. GEC's telecommunications arm, GPT is leading the field at the moment.

The scheme is open to all who can cope with advanced learning in technology and management. Make sure you know what is available and don't lose out. Your personnel and training people have all the details.

The PDC has a new director, Ian Gass, who comes from GPT, Coventry. Ian has a first from Oxford in Physics, and an M.Sc. from Sheffield in Computer Stu-

dies. Glyn Jordan, seconded to the PDC from Marconi, continues as director of studies.

Advantages

The benefits that were foreseen are now a reality.

Tailored Programmes

A programme of study can be devised to suit the needs of the individual and the business.

Andrew Robinson of GEC ALSTHOM Traction is taking a Warwick University M.Sc. in manufacturing systems engineering but has substituted some Warwick learning modules from Brunel University — to suit his special needs. The PDC facilitates this.

Access to study

A first degree is not necessary to study at post-graduate level. — Pat Osborne of GEC ALSTHOM Transmission Switchgear does not have a degree, but is on an M.Sc. programme, helped by the PDC.

Topping-up Skills

The modular approach is ideal for topping up the skills of experienced people. — GEC ALSTHOM Measurements is using PDC modules to update skills for middle managers.

GEC - tailored courses

Courses can be tailored to the needs of GEC.

— Coventry Polytechnic has designed a special advanced level course with Ruston Gas Turbines in finite element analysis.

— Some Henley MBA modules are run at Dunchurch. GEC managers contribute to the teaching and assessment. There are financial savings too.

Use of GEC courses

Suitably accredited in-house courses can be used towards a further degree.

— GPT Coventry has two tech-



The new entrance to the GEC Management College.



Paul Watts.

www.rochesteravionicarchives.co.uk

is the r future

hat a learning society is a successful society. Many
g race — that our schools and colleges are not up to
ces are better trained.

Overcome these problems — real or apparent. Ours
markets. GEC survives and prospers according to the

most other British companies. It trains thousands of
enough.

eds shift like the sand with the tide. Companies and
nations and peoples' expectations.

Weak of their potential. Most can achieve more than
s, our profession, our relationships with others, and
breathing — if you stop you have died.

Encourage their colleagues to go on learning, through
and training. In the last two years GEC has expanded
GEC companies have committed themselves to over
mmes — in the first year — and with more to come.
ues, what have we done to enhance our capabilities



Ian Gass.

nical software modules accredited at Masters level and available in the PDC.

— The GEC Management College has some of its courses accredited at Masters level.

Some 23 GEC companies are now members of the PDC. They are actively involved in selecting modules — in the design and delivery of programmes — through the PDC.

Peter McGenity, of Rodco, who is studying for an MBA using the PDC, says "I apply knowledge and techniques gained through the MBA in my daily work. The practical aspects are complemented by the general development and stimulation of the mind. It is proving challenging, rewarding and hard work."

Is YOUR company a PDC member? Are YOU benefiting from these programmes?

To remind you about the PDC.

Professional Development Consortium

This is an association of GEC companies with certain polytechnics and universities which have agreed to flexible arrangements to service our needs.

Objective

To develop and deliver tailor-made post experience learning at postgraduate level to help GEC sustain its technical and managerial excellence.

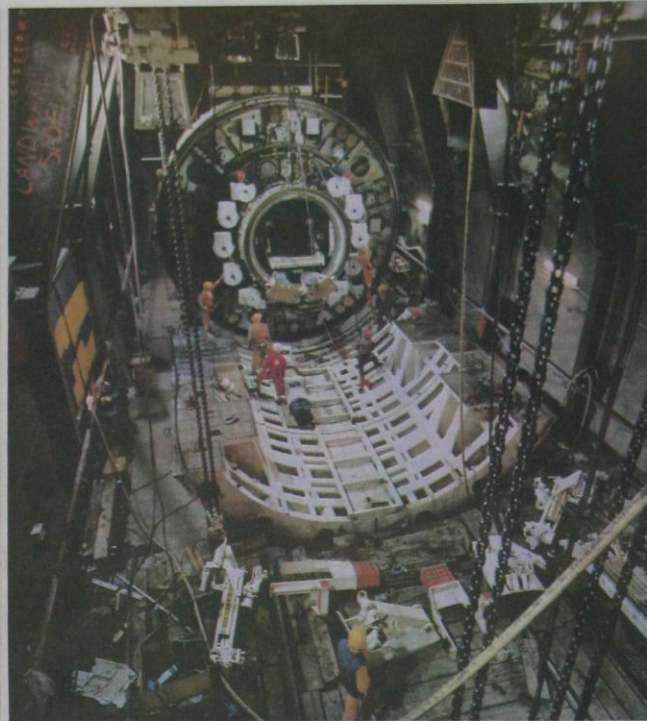
Personal Development Programmes

Learning is typically by one week residential or distance learning modules. A number of

modules, linked together to form a larger coherent and relevant learning programme, can lead to a postgraduate qualification, M.Sc. or MBA.

Each module is quality controlled by an external examiner and much of the assessment of the students' performance is by post-module work done in the students' own time or at their place of work as part of their normal duties.

Within the PDC, modules are cross-accredited so a student with the approval of his/her company, may register with one of the selected polytechnics or universities but pick modules from others, thus assembling a personal development programme.



GEC tunnels on

One of the two tunnel boring machines drilling under the English channel is pictured above. The cutter heads are driven by 110 kW, water cooled, 2-speed motors supplied by GEC ALSTHOM Large Machines, Rugby.

Each of the machines has a diameter of 8.36 metres, measure about 180 metres in length, weigh approximately 1200 tonnes, and consumes 2 MW of electricity. Each is capable of simultaneous extraction and tunnel lining with precast concrete segments weighed in by two weigh bridges from GEC Avery, Warley.

Ventilation of the three tunnels during construction is supplied by fans from Woods of Colchester. For a story on GEC's participation in the Channel tunnel project please see page 4.

Sailing helps to develop skills

DO YOU want a chance to do what you never thought you'd do — or be able to manage? This is the opportunity given to adults by the Sail Training Association (STA) on their sailing schooners the 'Sir Winston Churchill' and 'Malcolm Miller'.

Glyn Jones from the GEC Management College, Dunchurch, was invited by the STA to try out life on the 'Sir Winston Churchill', sailing from Oban to Glasgow, prior to the GEC voyage for forty employees scheduled for 3-7 November. Last year, GEC trainees sailed the 'Lord Nelson' from Southampton to Guernsey.

The aim of the STA's programme is to broaden outlook, extend the individual's limits of achievement and demonstrate the value of teamwork. This is achieved by the day to day requirements of a large, labour intensive sailing vessel making passage in all weathers and working non-stop for 24 hours.

The schooners have been sailing in UK waters since 1966 and have given opportunities for a large number of young people from all backgrounds to benefit from the experience of life as the closely-knit crew of a sailing ship.

The STA has recently begun to offer voyages to adults as a way of spreading the word about the benefits of sail training and to support the work they do with

young people from less affluent backgrounds.

On the voyage along the west coast of Scotland, Glyn experienced the highs and lows of sailing, but enjoyed the voyage immensely. "The highs were the exhilaration of a fast sail under strong winds with sails aloft, the magnificent scenery of the Scottish islands and going up in the crow's nest. Also, the way the teams which formed the watches quickly got their act together to play their part in crewing the boat and, not least, the relief of getting into a narrow bunk after 18 hours of hard physical work."

The lows? Well, he was seasick, the full-time crew did shout when he used the wrong rope (he quickly found that there are English words in common usage which mean quite a different thing aboard ship, for example 'come up' means 'let go!')

If you want further details of this year's GEC Tall Ships voyage aboard the 'Malcolm Miller' contact Glyn Jones or Barry Roberts at Dunchurch on 0788 810656 (GNET: Access code + 784 2015/2076).



Climbing the mast.

GPT links five cities for school lesson by video

DISTANCE learning using the latest video-conferencing techniques has taken an important step forward with a five-city video-conference linking the USA and the UK.

The two-continent multipoint video-conference was the start of the California State University (CSU) distance learning network, which will make valuable academic resources available to a wide audience.

The inaugural video-conference was organised jointly by GPT Video Systems, Maidenhead, the California State University and US Sprint. It linked Sacramento and Bakersfield in California, Kansas City, Washington D.C. and London, and was also beamed live to educational establishments across the US by a satellite television education channel.

As part of the hour-long programme Dr Ted Murphy, a professor at CSU Bakersfield, gave a lesson on eagles to a class of 20 pupils over 2,000 miles away at an elementary school in Kansas City.

Richard Couchman, London host of the five-city video-conference and general manager of GPT Video Systems, said: "Video-conferencing has tremendous educational potential as a means of allowing geographically-dispersed people to exchange information and ideas spontaneously and interactively. By allowing students and pupils at one establishment to follow

specialist courses offered by another, valuable academic resources can be made available to the widest possible audience."

According to CSU, California — the sixth largest economy in the world — spends more each year on education than the gross national product of at least 80 countries. With 20 campuses across California, CSU is pioneering the use of video-conferencing in education to enable smaller campuses to share the resources and specialised courses offered by larger sites. Initially, the educational video-conferencing network will link CSU campuses at Bakersfield and Sacramento.

The network will also be used for staff development and in-service training, presentations by distinguished academics, and distribution of film and videotape materials as well as general academic and administrative meetings.

Video-conferencing has become viable as a teaching medium in recent years because of the greater availability of digital telephone lines and developments in technology, such as video compression, which has reduced the 'bandwidth' or capacity required to carry video pictures over telephone lines.

Insite excellence

AN ARTICLE about package holidays written by Pat Hudson, editor of the GEC ALSTHOM Measurements in-house magazine, Insite, has won an Award of Excellence from the British Association of Industrial Editors (BAIE). The award was presented at the BAIE's annual conference held in Stratford-upon-Avon.

Pat, who is the company's

public relations officer, has produced Insite for the last seven years. She previously edited the Dorman Digest when she worked for Dorman Diesels.

Guests at the conference included broadcaster/writer Professor Laurie Taylor and the award presentation was made by top scriptwriter and personality, Barry Cryer.



Pat Hudson with her award.



GEC Avionics' is fit for work

GEC Avionics, Rochester has received its third Fit for Work award from the Department of Employment.

The award scheme, established in 1979, recognises "good practice among organisations in recruiting, employing and training people with disabilities".

The award was presented by Countess Mowatbatten of Burma. GEC Avionics has a long established reputation in recruiting and retaining staff who are disabled and is the only company in the South East region to have received the award on three occasions.

Pictured above at the presentation are (l to r) Ron Howard, chairman of GEC Avionics, Julie Starling, welfare officer, Countess Mowatbatten and Brian Tucker, managing director.

UN appointment for Hirst man

THE excellent work of Dr David Andrews in co-ordinating actions in GEC-Marconi to reduce the use of CFCs and other ozone depleting gases has led to an important new appointment. David, who is based at the Hirst Research Centre, Wembley was nominated by the Government to serve on the solvents committee, set up in 1989 under the United Nations Environment Programme.

The committee's most pressing task is to consider the technical feasibility of eliminating both CFC and methyl chloroform solvents even more quickly than was agreed in last year's revision of the Montreal Protocol. This laid down that all CFCs should be phased out by the year 2000 and methyl chloroform by 2005.

David Andrews says that the above timescales are certain to be reviewed next year because of the seriousness of the threat to the ozone layer. In GEC-Marconi reduction of usage varies according to the problems being faced, but progress is being made, David said.

In announcing the appoint-

ment, Dr Steve Cundy, HRC's director said that it brings great credit to David and to GEC-Marconi. "The positive actions within GEC-Marconi units have enabled David to apply his own knowledge and then to be recognized as an international authority," he added.

Already David has attended the first of three meetings of the 36-strong committee, which was enlarged in the new year. Representing 11 countries, it has two more meetings planned before it initially reports back to the UN in November. Together they form an exhausting schedule for David.

The first meeting was held in America. In ten days the Committee visited Mexico, to look at two electronics production facilities, the Internepon Conference in Los Angeles, where David presented a paper on GEC's solvent reduction and replacement activities, and the massive Boeing plant at Seattle to discuss its work on reduction of CFCs for precision cleaning of metals used in aircraft production.

Paul wins £4000 marketing award

PAUL Wendon, a product manager at Woods of Colchester is the 1991 winner of a prestigious marketing award. Paul, who has been with Woods for six years, was presented with the Frank Dennis memorial award at the annual lunch of the Federation of Environmental Trade Association in London.

The award, founded by the Federation, is designed to assist heating and ventilation com-

panies to meet the challenge of 1992 by improving the marketing disciplines necessary to sharpen attitudes in the ever changing market place.

Courses

The prize for Paul is a series of residential courses at the headquarters of the Chartered Institute of Marketing at Cookham in Berkshire. Worth £4000, these courses will enable Paul to become an associate member of the Institute of Marketing with further studies towards a diploma in marketing.

Next
copy
date
July
12

Election results of club council's AGM in Portsmouth

ELECTION results were announced at the club council's AGM in Portsmouth with John Lippitt, GEC group export director, being elected chairman to succeed Admiral Sir Lindsay Bryson.

Sir Lindsay was thanked for the support he has given the council and the club during his two years as chairman. Henry Dickin was elected a life vice president in recognition of the many years he has served the club both as a member of club council and with the Manchester centre.

Other results of the preceding council meeting were as follows: The secretary — P R Watson, hon. treasurer — J Watkinson and the honorary assistant secretary — C W J Simons were all re-elected. Two members from each UK centre were nominated to serve on council together with Noel Holmes who represents the Canada centre in the UK.

Membership stands at 4639 — 2437 in the UK and 2202 overseas. Of these 1129 are affiliated to overseas centres, 492 in Canada, 34 in Hong Kong and 593 in Australia.

Members

97 new members were elected in the UK and 25 in overseas territories. We have lost touch with 60 members whose mail has been returned. We have recorded the death of 53 members. 264 members advised their change of address and our records and mailing list have been amended accordingly.

The club council is optimistic for the future. We hope new members will continue to come forward particularly in overseas territories and that, where circumstances permit, overseas members will attend social and sporting occasions.

ANNUAL DINNER

The club's annual dinner is to be held at Stychfields Hall, Stafford on Thursday 3 October, 6.45 for 7.30. Lord Prior will preside. The principal guest will be the Rt Hon Peter Lilley MP, Secretary of State for Trade and Industry. Full details are being circulated.

Business associates are welcomed as guests. Members from overseas territories who are planning to be in the UK at the time will be specially welcome.

Hotel accommodation has already been reserved in Stafford for those wishing to stay overnight.

INTER-CENTRE GOLF

Portsmouth Centre is organising this years event in cooperation

retirement.

A 'North London' branch is being formed with the aim of making the Overseas Club more active in the Stanmore, Borehamwood, St. Albans, Wembley and Watford areas. It is hoped an inaugural lunch will be arranged soon.

The golf society met for the spring meeting at Datchet golf club with six members participating for the Druce cup. This was won by Frank O'Neill with 'Greg' Gregory on a very close second.

A visit to the Barbican to see 'A Night in Seville' is the next planned event.

LINCOLN

Sixty members and guests attended a performance of "Kiss Me Kate" by the Lincoln Amateur Operatic and Dramatic Society at the Theatre Royal, Lincoln. This was followed by a buffet supper in a local hostelry. The cast gave a polished performance as we have come to expect.

Members of the centre also made a musical trip to the De

All contributions to this column should be sent to PETER R. WATSON
GEC, 1 Stanhope Gate, London, W1A 1EH



MANCHESTER

The president, Tom Laybourn, welcomed 184 guests to the 66th annual dinner of the centre held at the Cresta Court Hotel, Altrincham.

The toast to the guests was proposed by DR Edwards, managing director of GEC ALSTHOM Electrical Equipment Division, who introduced the principal guest, David Teale, operations director at Manchester airport. He also paid tribute to Paul Combeau, managing director of GEC ALSTHOM NV.

David Teale in reply spoke of the history of aviation in the area. Manchester airport is now the 16th largest in the world and third in the UK. He explained problems that have arisen recently and how the latest technology is being used to overcome them especially those concerned with security.

Paul Combeau showed his excellent command of English in a speech where he stressed the need for greater communications within the company and the need to serve customers well. Mel McCartney gave the final response with a potted history of the M-V Company and a request for continued support of the Overseas Club.

The president concluded the proceedings by thanking the hotel and the committee for organising the dinner.

The 67th annual general meeting has also been held. During the year the committee met on ten occasions to discuss and arrange the business of the centre. 21 new members were elected during the year.

The officers elected for the ensuing year are: President — C J Salt, vice presidents — C J Copson, H Dickin, N R Salmon, A M Lyall, chairman — C A Vaughan, vice chairman — K Bentley, hon. secretary — N C Phipps, hon. treasurer — T F O'Rourke, assistant secretary — H J Earthey, committee members — F S Mansoori, G Meakin, D S Shann, D Stansfield, J P

Chalmers, Mrs J Jones, auditor — W J Higginson.

Jean Jones is the first lady member for the centre and we hope that this will encourage other ladies, who are eligible for membership, to become involved with the club.

RUGBY

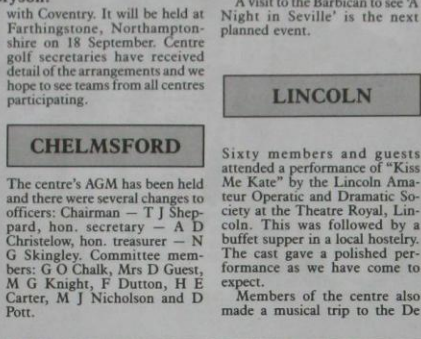
Revised dates have been announced. The ladies night at Ashlawn will now be on Friday 21 June and the croquet evening on Friday 19 July. A new venue has been arranged for this latter event — Coton Hall, the P. O. Management College. We hope that this event will be well supported.

STAFFORD

We thank Dr Khan for all the work he did for the centre during his time as hon. secretary. Fred Brown has now returned to this office and we are sure that his committee will actively rally to his support.

AUSTRALIA

Sam Burgess (Manchester and Sheffield 1924/27) reminded us of the very beginnings of the club being a founder member in 1925. He recalls the 'Colonial Dinner' which was held at the Mitre Hotel, a pub near Deansgate, Manchester (bombed out of existence in 1940). Top brass were invited including B N Adams, Captain Hilton, A McKinstry, F C Tregurtha, A Lobb, G E Bailey, R O Pomroy and the chairman F S Holder. The first M-VOA dinner was held in 1926 at the Brooklands. Sam attended the golden jubilee dinner in 1975 held at the Old Trafford Cricket Ground.



Pictured left to right are David Teale, Paul Combeau and Doug Edwards at the Manchester Centre's 66th annual dinner.



Pictured left to right are David Teale, Paul Combeau and Doug Edwards at the Manchester Centre's 66th annual dinner.

LONDON

The centres AGM was followed by a club lunch at the Naval Club. The following were elected to office: Chairman — J R Laver, vice chairman — J B Snow, hon. treasurer — J R G Traill, hon. secretary — Mrs J Blackford. Committee members: D B Donnelly, E E Clancy, J C Clare, K Druce, P Gillibrand, E E A Grace, J J King, G Maddrell, F J O'Neil, H R Sandilands, P E M Warden. Auditor — R H T Alexander.

Brian Snow was thanked for his hard work as chairman and we are pleased that he is prepared to take over as vice chairman. All hoped that he would enjoy his

Montfort Hall, Leicester to hear the Bournemouth Symphony Orchestra perform pieces by Copeland and Dvorak. The professional and talented performance by the orchestra was much appreciated.

COVENTRY

GN Lawrence was elected chairman at the AGM held at the Grange. R K Robertson was re-elected president. We welcome D H Inman to the committee. Members enjoyed the customary supper that followed the meeting. All agreed that the committee should organise another supper evening later in the year.

<p>OVERSEAS CLUB</p> <p>SECRETARIES</p> <p>Council:</p> <p>P. R. Watson GEC 1 Stanhope Gate London W1A 1EH Tel: 0203 452152</p> <p>Chelmsford:</p> <p>A. D. Christelow EFV Chelmsford CM1 2QU Tel: 0245 493493</p>	<p>Coventry:</p> <p>G. N. Otterside GEC Plessey Telecommunications P.O. Box 146 Coventry CV3 1LQ Tel: 0203 54988</p> <p>Lincoln:</p> <p>A. E. Garside Marconi Electronics Devices Ltd. Doddington Road Lincoln LN6 3LF Tel: 0222 506509</p> <p>London:</p> <p>Mrs J. Blackford GEC 1 Stanhope Gate London W1A 1EH Tel: 071-493 8484</p>	<p>Manchester:</p> <p>N. C. Phipps GEC ALSTHOM Transportation Projects Ltd. PO Box 134 Trafford Park Manchester M60 1AH Tel: 061 875 2358</p> <p>Portsmouth:</p> <p>G. Meachan Matra Marconi Space Systems Ltd. Anchorage Road Portsmouth PO3 5PU Tel: 0705 674578</p>	<p>Rugby:</p> <p>E. Wilson GEC Electrical Projects Ltd. Boughton Road Rugby CV21 1BU Tel: 0788 542144</p> <p>Stafford:</p> <p>F. Brown GEC ALSTHOM Transmission and Distribution Projects Ltd. PO Box 26, Lichfield Road Stafford ST17 4LN Tel: 0785 57111</p> <p>Hong Kong:</p> <p>K. M. Siacile GEC of Hong Kong Ltd. Tel: 5-8938282</p>	<p>Canada:</p> <p>P. S. Tambe GEC Canada Ltd. Tel: 416 624 8300</p> <p>Canada rep. in UK:</p> <p>N. Holmes 2 Heathwood High Street Tadworth Surrey KT20 5BB Tel: 0737 815478</p> <p>Australia:</p> <p>G. J. McLean GEC ALSTHOM Projects Division Melbourn Tel: 02-722 7444</p>
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GEC AVIONICS employees at Rochester gave themselves a year to raise £25,000 towards the Medway scanner appeal. Although they hoped to exceed the target, response across the company has been so enthusiastic that the goal was overtaken in just three and a half months.

At the beginning of this year activities began around the company to raise the amount with staff organising and taking part in a variety of events including book sales, sporting competitions, discos, pontoons, sponsored slims, sponsored silences, concerts, banquets, collections, raffles, quizzes and a fancy dress ball.

Overwhelmed

Brian Tucker, managing director of GEC Avionics said "I have been overwhelmed by the resourcefulness and generosity of all the people who work at GEC Avionics. A body scanner at the Medway hospital will enable local doctors to provide vital diagnosis of the early signs of cancer. We are all aware how important this equipment will be to the area, and the speed with which our staff have achieved their goal is an indication of their determination to see the scanner installed."

The hard work involved in organising activities in aid of the

scanner appeal has brought its reward in the amount of fun GEC Avionics staff have enjoyed. Di Bower, employee benefits officer and a major inspiration in the fund raising campaign said: "The fun will continue because many more events are planned for the coming months. Who knows what the final sum will be!"

The latest major event was a prize draw which alone raised over £4700. The prizes were drawn by Brian Tucker in the presence of Alison O'Connell, appeal secretary from the Medway Hospital.

Prize

The main prize of two return Virgin Airline tickets to New York were won by Chris Smith, a second year apprentice at Rochester, but in all 107 items, donated by employees, local companies, sporting teams and clubs were drawn. Di Bower stated: "We must thank all the local groups and concerns who have supported us so generously".

£25,000 target exceeded for Medway scanner appeal



GEC Avionics mad hatters' ball in aid of the Medway scanner appeal

Sponsored shave raises over £500

STAFF in the finance department at GEC Aerospace, Titchfield raised over £500 for the Comic Relief appeal.

A brave team whose members included Scott Cole, Alan Gentry, George Cunningham, Adrian Simpson and Sean

McKeown, had half of their beards and moustaches shaved to raise money for the Comic Relief fund.

David Skinner had the words 'Comic Relief' shaved into the back of his hair, and two girls from the finance department toured the site with a bucket collecting money.

The money raised will be used to help the famine victims in Africa and various organisations within the UK.

The team are already looking into new ways of raising money for next year's Comic Relief appeal.

A shovel with a difference

Neil Anderson, a mechanical engineer at GEC Ferranti, Edinburgh has been attracting much interest recently with his invention of a one-handed shovel.

Patented last year under the name of the 'Anderson' shovel, Neil has entered his invention in several competitions including the British Coal Enterprise Inventors competition. He has yet to win any prizes but has received many favourable comments.

The light weight shovel is especially useful when filling sacks by yourself. The one handed action means that one hand is left free to hold the sack whilst the load is deposited with the other.



The 'Anderson shovel'

Medical

It also has important medical implication as unlike the conventional two handed shovel, the Anderson shovel makes use of thigh and leg muscles which reduces the strain on the back. This is good news for people who suffer with back problems!

So far Neil has sold one shovel to a builder, one to a colleague at work who had a ton of sand to put in sacks and one to his in-laws who use it for their coal fire. All have found his invention very useful.

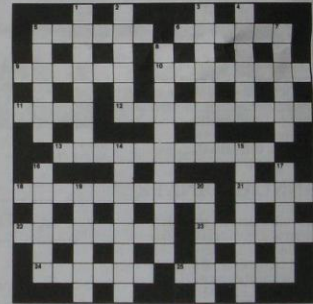
June Crossword

ACROSS

- 5. Plant more nuts. (6)
- 6. Give particulars of alien visitor in Irish assembly. (6)
- 9. Man finds sweetheart trapped in ravine. (6)
- 10. Foreigners becoming revolutionary, as in USSR? (8)
- 11. After a spot of gin a little party gets voluble. (4)
- 12. Novice and nurse becoming attached to former political leader. (10)
- 13. Started off with bad omen in show. (11)
- 18. It's a term I'd use for inflammation of the skin. (10)
- 21. Rebel leader's not in riot. (4)
- 22. Perfect rival got left inside. (8)
- 23. Growin' fruit? (6)
- 24. Justly giving lady at flat notice to quit. (6)
- 25. At the first signs of Spring - a flower for the wife, perhaps? (6)

DOWN

- 1. Working abroad with the French - lovely! (8)
- 2. Find out I've abandoned Mairret? (6)
- 3. Where to buy ties that make chaps use colourful language. (8)
- 4. Row about rising artist showing list of prices. (6)
- 5. Letter from Greece lies around on the breakfast table? (6)
- 7. Fellow is after long-diminished capital. (6)
- 8. Dictator of fashion gets minister to accept first-rate sporting dog. (11)
- 14. Surprisingly switched round? Honestly? (2,3,3)
- 15. An expression used in America for "the end". (8)
- 16. Girl record-holder needs rest. (6)
- 17. Inclined to mope when following us around. (6)
- 19. Leading man puts up with sulks from small TV entertainer. (6)
- 20. Band tries medley round piano. (6)



ENTRY FORM

Name

Address

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Company

Prize

DEADLINE:
July 19 1991

Entries should be sent to Topic, GEC, 1 Stanhope Gate, London W1A 1EH. They must arrive here by July 19 1991. Please mark your envelope June Crossword.

May winners

The two items we have chosen as prizes for this competition are either a Redring Miniball kettle or a cream GFT one piece York telephone.

The first all-correct entries drawn at random from the May crossword submissions came from G F Shynn, Marconi Research Centre, Great Baddow and C F McDonald, SE1, Heywood.

May solutions

ACROSS

7. Fiend; 8. Royalities; 9. Sneak; 10. Remainder; 12. Painted lady; 16. Here; 17. Spats; 18. Rain; 19. Depth-charge; 22. Watergate; 24. Knave; 25. Severance; 26. Using.

DOWN

1. Lion-tamer; 2. Undaunted; 3. Robe; 4. War and Peace; 5. Stint; 6. Lever; 11. Gets her goat; 13. Least; 14. Greatness; 15. Mingling; 20. Caper; 21. Level; 23. Tuck.

Inter-site bicycle tour raises £1000

Staff, relatives and friends of Marconi Instruments assembled at the company's Longacres, St Albans site, as they prepared to set off for an inter-site bicycle tour to raise money for the Watling View school for mentally handicapped children in St Albans.

Around 60 people aged between 15 and 50 years old pedalled the 45 miles from the St Albans site to the company's Luton site, then on to its Six Hills site in Stevenage, and finally back to St Albans. This was achieved in just one day.

Organisers Chris Foreman from Wheatthorpe and Dick Page from St Albans are hoping that nearly £1000 has been raised as a result of the tour. The Watling View school will use the money raised towards obtaining a mini-bus.

Winner of Air UK competition

THE winner of the Topic Air UK competition is David Park, a contracts engineer at GEC ALSTHOM Engineering Systems in Bradford.

David, who has been with the company for over 30 years since he was 15, said "In all these years this is the first time I have ever won a Topic competition".

David who is still getting over the shock of winning, has not yet decided to which destination he would like to use the free air tickets. He will be taking his wife with him on the holiday.

The answer to the questions as they appeared in the competition were Air UK, BAe 146 Whisper Jet and Liverpool Street.



EEV helps school science week

EEV, Chelmsford helped out the local Nabbotts County Junior school when the pupils held a Science Week to give them an insight into the world of science and technology. EEV apprentices were asked to help run science projects which included making electric motors, using and understanding a thermal camera, programming a robot and building various electronic circuits. The picture shows EEV technician apprentice, Dean Baker (right) explaining how to programme the robot.

CLASSIFIED COLLECTION

HOLIDAYS

WIMEREUX, France. 3 miles Boulogne. 22 miles Calais. century old bungalow. Sleeps 5/9. 300 yds beach. 1 1/2 miles golf course. Weekend bargain break £60. Autumn/Winter. Summer week from £200. Tel: 081-986 2262.

NORTH DEVON. Westward Hol Self-catering chalet, sleeps six. Two bedrooms, bathroom, colour tv, fridge, cooker. Fully equipped (excepting linen). No pets allowed. Private access to promenade and beach. Contact Himsley 9 Tichborne Close, Blackwater, Camberley, Surrey GU17 0AQ. Tel: 0276 33684 (evenings/weekends).

BOSTON. Lincoln. h&b available in pleasant rural setting with riverside frontage. Fishing available plus 6-berth caravan for anglers only. Cheap rates. Boston (0205) 350478.

NW SCOTLAND. Croft house on shore of Loch Ewe, Aulbea, Rosshire. Well equipped. Close to famous Inverewe gardens and beautiful highland scenery. Ideal for touring, walking and fishing. £8 per week. Tel: 0376 26250 for further details.

HOLIDAYING in Cyprus? Contact St. George's car hire first. New cars for hire, very competitive rates, full insurance with G.R.E. Contact PO Box 1201, Limassol, Fax no. 010 3575 387807.

GOZO, Malta. Ground floor apartment with patio and garden. Superb view. Sleeps four in one double plus two single bedrooms. Travel, car hire, etc. can be arranged. Near the island's best beach. Tel: 0582 792701.

AUTUMN holiday. Villa in Charente

and Costa Del Sol. Discounts for Topic readers. Duxbury, Hele, Exeter EX5 4PZ. Phone 0392 881363.

YORK. Cottage ten minutes walk to city walls. Sleeps four. Colour television, incoming phone, fridge, washing machine, no meters. Modern kitchen and bathroom. Towels and linen supplied. Free parking. Pets welcome. Full weeks or three day breaks available (0903) 764377.

SOUTH WEST France. Medoc region. Two well equipped village houses sleeping four or six. Well placed for beaches, lakes, shops and Bordeaux. Privately owned. Few vacancies left. From £125 per week. Tel: 040 484 336.

SANDY BAY. Esmouth (Haven's Devon cliffs). Surely Devon's best holiday park. Three bedroom caravan to let. Massive savings on Haven's prices for Topic readers. Free pools and top class entertainment. For details contact Duxbury, Hele, Exeter EX5 4PZ. Phone: 0392 881363.

HOLIDAY home to let in Looe, Cornwall. Three bedrooms. Sleeps 8. Parking space. Easy walk town, beach, railway and bus services. Detail phone Thompson, Looe 050 362764.

ALGARVE-Carvoeiro. Two bedroom house. Large pool balcony overlooking sea. Maid service. Sat flights from most airports. Also apartment on Costa Brava

apply for Sep/Oct breaks. Phone 0344 424632 for brochure.

FOR SALE

AIR MILES for sale 2000. That's 5 return trips to Paris for example. £150 wanted ono. Phone 0703 263188 evenings.

MOTOR LAUNCH 22ft. NAUTICUS 22. Central heating, foot/wash basin, cabin, h/c water, fridge, Honda HP10. Mooring available Woortens Boatyard, Marton, Ring. 0504 372215 or 071-387-6460 (ask for Bean). £5,500.

WINDSURFING board. 1989 Vinta 370 club. Immaculate condition, used 8 weeks. Ideal beginner/intermediate board, also a nearly new body harness. A bargain at only £180. Phone 0276 28792.

EXPERIENCE Echoes the top selling perfumes in the UK. Also Swiss System, the top quality skin care program. Top quality products at affordable prices. Not available in shops. Call 081-950 3217. Monday to Friday 6-9 evenings.

FOR SALE Bailey Clifton 400 caravan. 2-berth, aluminium chassis 13'6", double glazed with heater oven, fridge and spare wheel. £1200. Phone Cambridge (0223) 870444.

PROPERTY

BUSHEY HEATH. 20 mins walk MDSL. 1950's detached bungalow. 3 bedrooms, reception, large kitchen, garage, gch. Large gardens. Panoramic views £129,000 ono. Tel: 081-950 4729 (answerphone).

LINCOLN. Interesting three storey three bedroom house, ten minutes from RGT. Recently decorated kitchen, dining living room and bedroom. Ideal for first time buyer. £36,000 or part exchange considered within the Lincoln area. Tel: Lincoln 541397.

HENSTRIDGE near Templecombe. Two bedroom terraced cottage. Two double beds with built-in wardrobes. Lounge with open fire. Kitchen/diner. Bathroom. Large selfed garden. Parking for up to four cars. Fully centrally heated. Only 10 mins from Templecombe site. £55,000. Tel: (0935) 442292 or (0963) 63469.

BOURNEMOUTH/POOLE Bungalow. Three double bedrooms (two with H/C), 25 ft lounge/diner. Fully fitted kitchen. Luxury bathroom. Full gas ch. UPVC windows/doors. Secluded garden, detached garage, private rear access. Five minutes (foot) from local schools. £90,000. Tel: 0202 744078. No chain.

COLLIERS WOOD/Mitcham border. South London. 3-bed maisonette, lgch, off-street parking, security video/door entry system. 119 year lease. Handy for bus/tube (Northern line). Ready for occupation with carpets, curtains etc. £59,950 ono. Tel: 0389 32454 (with answerphone).

RUGBY-large extended three bedrooms terrace house near to station and GEC. Large enclosed garden. Full gch. Fully modernised lounge, dining room, kitchen breakfast bar, bathroom. Close to schools. 15 min walk to town centre. Tel: Rugby 569174. Price £44,000 ono.

RUGBY. Bilton area. 3 bedroom semi, carpets and curtains included, large garden, vacant possession. Close to amenities. Tel: Rugby 575128.

TIMESHARE Killoonquhar Castle, Fife. Week 6 February. Three bedroom detached luxury bungalow. Three bathrooms, jacuzzi, sunbed. Site facilities swimming, squash, badminton, snooker, saunas, gymnasium, horse riding, bar, restaurant. Inspection visits available. Ownership available in perpetuity £3500 ono. East Kilbride 03552 30729.

WORCESTER Near Cathedral and centre of this interesting city. Ideal for touring Cotswolds, Malvern, and rural Worcestershire. New 2 bedroom luxury ground floor mews apartment to sleep 3 to 5. Nominated under-cover parking. Non-smokers please. For full details please phone (0905) 640264.

CARS/MOTORCYCLES

BSA 250 CC C10 basket case for restoration. 85% complete offers or swap 1960's runner EG. Matchless or AJS. For further details contact Mick Thomas, 55 Fleetwood Close, Minister, Isle of Sheppey, Kent ME12 3LN.

MISCELLANEOUS

PHOTOGRAPHIC collector desperately seeking any pre-war items. Cameras (plate), 35 mm, box, folding LTC etc and accessories. All replies answered. Tel: G Burns 031-556 0934 evening or write to G Burns, 2 Cochran Terrace, Edinburgh EH7 4BJ.

RE-UNION 51 (RAF) MT coY Egypt 1942-1956. 50th Anny. May 1992. Please write SAE, Maurice Townsend, 49 South Road, Clifton on Dunsmore, Rugby CV23 0BZ.

RAF LOCKING - 90th Entry (1958/61) reunion. We are attempting to contact all ex-apprentices to join the newly-formed Association and attend the reunion in September 91. Please contact me - Ron Kelly - on 0243 378877.

SELF CONTROL. An interactive control systems design tool for the PC. Root Locus, Bode, Nichols, Nyquist and time simulation. Schematic editor for block diagram input - menu driven. Write for brochure to PO Box 22, Waterlooville, Hants PO8 9YB.

WANTED "Lord of the Rings" VHS video. Must be in very good condition. Please contact Geoff Osborne, Tel: 0705 822878, 45 Wallisdean Avenue, Copsons, Portsmouth, Hants PO3 6UA.

Please write your classified advertisement in the grid below in clear block capitals (one word in each box up to a maximum of 40 words) and send it to: Alice Herbert, Topic, The General Electric Company plc, 1 Stanhope Gate, London, W1A 1EH by July 19. Insertion is not guaranteed, but every effort will be made to include your advertisement as soon as possible. GEC employees, their families and people who have retired from the company may advertise free of charge. For others the current cost is 50p per word. Please make all cheques payable to The General Electric Company plc.

At present, only one insertion per ad.

Name
 Address
 Tel:

GEC Location
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GEC Scotland wins top ABSA award

GEC SCOTLAND has won the Association for Business Sponsorship of the Arts (ABSA) award for the most imaginative sponsorship of Glasgow 1990. The company sponsored "The Ship", a play performed during Glasgow's year as European City of Culture.

A trophy was presented to the chairman of GEC Scotland, Sir Robert Easton by the internationally renowned Scottish percussionist, Evelyn Glennie, at a ceremony in Kelvingrove Art Gallery, Glasgow. As a new company, GEC Scotland decided it would be appropriate to launch themselves in association with a show which involved the launching of a ship. The play, which exceeded its six week run, focused on the great shipbuilding heritage of the Clyde.



Pictured l-r are Sir Robert Easton, Evelyn Glennie and Edward Jackson, producer of 'The Ship'.



Glyn Trollope with colleagues — past and present — after a farewell lunch at the GEC Management College, Dunchurch, near Rugby.

Glyn Trollope retires

AFTER 23 years at GEC's head office in Stanhope Gate, London, Glyn Trollope, GEC's personnel director has retired. He was joint chairman for several years of the NJCC, a consultative body with national trade union officials.

Born in Swansea, he was educated at Swansea Grammar school and the University of Wales before starting as a works study officer with ICI Metals. He later worked for Richard Thomas and Baldwins and joined Osram-

GEC in 1963 as personnel manager.

He was recruited to the Stanhope Gate personnel department in 1968 as industrial relations manager by Sir Jack Scamp, who was then personnel director of GEC. Glyn was made group personnel manager in 1972.

A music lover, he has been a member of Berkhamsted Choral Society for many years and plays the organ at a local church.

Glyn and his wife have two children, a daughter who is a freelance journalist and a son who is a teacher.

Succeeded

He is succeeded as GEC's personnel director by John Shrigley, formerly personnel director of GEC-Marconi.

A presentation was made to Glyn by Lord Westminster at a gathering of friends and colleagues from Stanhope Gate. Among the gifts he received were cheques and a tripod for his camera.

Young Kart ace races on



The Freckleton Flyer, (right).

ANDREW Unsworth, an 18 year old apprentice from GEC Reinforced Plastics, Preston has earned the name of the Freckleton flyer from his success in competitive kart racing.

Andrew first drove a kart at the age of 14 years and entered his first competitive race in the 1989 season when he was 16 years old.

Distinction

During this time he achieved the distinction of beating the then British champion, Steve Cook-Martin, reaching speeds of up to 85 mph and being placed sixth in the British Open.

This year Andrew, is starting a 10-series championship endeavour to win the RAC British Kart Championship, senior class. He has competed in three of the ten races so far.

Printed by Cherrwell Valley Lithographic Ltd, Tramway Rd, Banbury, Oxon. Tel: (0295) 267691.

Woods teams up for fun run

THIS year, for the first time, Woods of Colchester is sponsoring a team entry in the Colchester Fun Run 1991.

This annual event is a half-marathon (13.1 miles) with trophies for top firm, pub, civilian and military teams, first veteran

and first and second male and female. For those who prefer it there is an alternative shorter run.

This year the money raised from the sponsored teams will be

donated to help the Raise-a-Laser appeal, to buy a surgical laser for Essex County Hospital. The Woods team will be collecting sponsors for this worthy cause.



The team members from Woods, are pictured above going through their paces prior to the race.