

House Journal of GEC-Marconi Avionics Limited

MPS GET THE MESSAGE

GMAv's Venom Team recently took their message to MPs at London's Queen Elizabeth II Conference Centre in Westminster.

Photograph (i) depicts Venom Operations Manager Keith Reid showing the Venom Cockpit to (l-r) MPs Bill Walker, Michael Shersby and Sir John Stanley.





Brian Tucker (left), [Director and General Manager -Displays and New Ventures Division], and Dave Steward (right), [Research Manager -Displays], are seen in photograph (ii) showing Sir Graham Bright (centre) the day/night integrated helmet which will be used on Venom.

The decision on the UK Attack Helicopter is now expected to be made in the Summer. The Company was pushing the message of 'Value for Money' and the new high-technology jobs the Venom Programme would bring.

# **RUNNER-UP JULIE**

Julie Finch, a 20 year old Test Engineer with Sensors Division at Basildon was recently awarded the runnerup title in the 1994 Mary George Memorial Prize. Julie came a very close second to winner Ann-Marie Wilkinson from DRA Malvern, Worcestershire. The Secretary of State for Education, The Rt Hon Gillian Shephard MP, presented the award to Julie at a special ceremony in London.

The award, jointly sponsored by the Institution of Electronics and Electrical Incorporated Engineers (IEEIE) and the Caroline Haslett Memorial Trust (CHMT) and complementary



Finalist Julie Finch (r), with The Rt Hon. Gillian Shephard MP.

(IEEIE) and the Caroline to the Young Woman Engi-Haslett Memorial Trust neer of the Year Award, is (CHMT) and complementary made to the young woman

showing particular promise in becoming an incorporated engineer.

**Issue 8** 

High Standards Required

Both awards aim to encourage more young women to pursue a career in electronic and electrical engineering, leading to Incorporated Engineer level. Roy Haley, Chairman of the Award adjudicating panel, said, "The criterion required of those nominated is very high and we have maintained this over the years. However, the panel and I are delighted with the exceptionally high standard of contenders for the 1994 titles."

Continued on page 8

FOREIGN SECRETARY VISITS GMAV

The Rt. Hon. Douglas Hurd MP, Foreign Secretary, accompanied by Rt. Hon. Lord James Douglas-Hamilton MP (Edinburgh West), recently took time out from very busy schedules to visit GMAv's two South Gyle based Divisions, Support and Displays. During the visit the Foreign Secretary viewed a cockpit mock-up, representative of an F-5,



to demonstrate the Company's marketing aim in the important retrofit market.

A wide range of Edinburgh designed and manufactured equipment was on show, including the Helmet Mounted Display selected for Eurofighter 2000 and the equipments being provided for the RAF Tornado Mid-Life-Update programme. These include the Head Up Display, Computer Symbol Generator and Digital Map Generator.

Of particular interest to the Foreign Secretary was DSGE's participation in the C130J programme with the Digital Map Generator, coupled with the export potential of all the Division's products.

**CLARA POD ...** *FIRST FLIGHT* 

The accompanying photograph shows the Anglo-French Laser Radar Technology Demonstrator (CLARA) pod fitted to DRA's HS 748 aircraft, which will be used for trials of the system.

The trial fit of the pod was successfully undertaken at the Bretigny airfield, France, during January this year.



ii

(L to r) Dave Livingstone, Douglas Hurd, Bill Hamilton (DSGE General Manager). Douglas Hurd looks at the Helmet Mounted Display selected for Eurofighter.

(L to r) Bill Hamilton, Douglas Hurd, Dave Houston. Dave Houston, Chief

Engineer DSGE, is seen bere discussing the Digital Map Generator selected for the C130J.



# **GEC-MARCONI'S** NEW MD

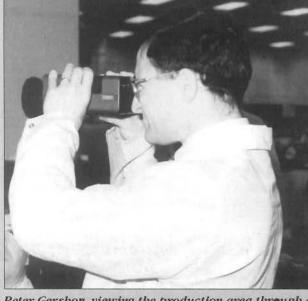
GEC recently announced that Peter Gershon, formerly Managing Director of GPT, had been appointed Managing Director of GEC-Marconi with effect from 14 November, 1994. His appointment is in succession to Roy Gardner who has joined British Gas plc.

Tony Cobbe, formerly Managing Director of the GPT public exchange business, has been appointed Managing Director of GPT.

Lord Prior, Chairman of GEC said, "Peter Gershon Marconi the same high



will bring to bear in GEC- Mike Gevaux (1), discussing optical processes with GEC-Marconi's new MD.



Peter Gershon, viewing the production area through a Pyro 2000 thermal imaging camera.

standard of managerial competence which has made him so successful at GPT. We are glad to acknowledge Roy Gardner's valuable contribution during his time at GEC-Marconi and we wish him every success in his new responsibilities."

Subsequent to his appointment Peter Gershon has been visiting the various units within the GEC-Marconi Group. The accompanying photographs show him during his visit Sensors Division at to Basildon on 25 November, where he was briefed on both the Airadio and Electro Optical businesses. He has since visited other sites within GMAv.

# **CBI's PRESIDENT** VISITS GMAv Inc.

During a recent trip to the United States, Sir Bryan Nicholson, President of the Confederation of British Industry, visited Atlanta.

In addition to giving a speech to the British American Business Group (BABG), Sir Bryan was tak\_en to the GEC-Marconi Avionics Inc. facility where he was given an overview of the extensive support operations together with a first-hand look at equipment and systems in production. Sir Bryan was accompanied on his visit by Mr David Wright, HM British Consul-General Atlanta.



(L - r) David Wright, and Bill Broyles - President and CEO of GMAv Inc. and BABG Director, with Sir Bryan Nicholson.

SENIOR

**APPOINTMENTS** 

#### 150 9001 at Nailsea

Following a routine surveillance by Lloyds Register Quality Assurance (LRQA) in October 1994, GEC-Marconi Oil & Gas at

Nailsea were audited against both the latest revision of the Standard and the observations raised during an initial Assessment in April 1994.

This was successfully completed and the Group is now approved to BS EN ISO 9001, 1994.



Robin Sleight.

out the Division.

Rochester.

Two senior appointments

Robin Sleight has been

appointed Director of Market-

ing and Technology for the

Displays & New Ventures Division, responsible for all

marketing activities through-

have recently been made at

Mrs Jackie Berger has joined GMAv from Pilkington Optronics, St Asaph, in the position of Public Relations Manager.



Jackie Berger.

Both Robin and Jackie are based at Rochester and report to Brian Tucker.

# **Fifth Quality Registration Event**

Quality Recognition Event at Crewe Toll, Edinburgh.

the Quality Improvement Recognition Committee

Radar Systems Division To date. 40 improvements from both established The accompanying photograph recently held their fifth have been accepted by department quality teams and those drawn from across the Division.

shows some of the recipient team members with their certificates.



# **ENHANCED** ATE FOR RAF

Through the development and provision of enhanced Automatic Test Equipment (ATE), GMAv's Support Division at Donibristle Fife, can now provide full serviceability testing and repair for equipments on the RAF's Harrier GR7 and Tornado GR Mk1.

The modifications made to the existing ATEs at RAF Laarbruch and RAF Wittering, will now enable them to test the navigation Forward Looking Infra-Red (FLIR) for the Harrier GR Mk7.

The new test equipment is an enhancement to the existing ATE used to test the TV/ Laser Tracker of the Harrier Angle Rate Bombing System. The ATEs enable full serviceability testing and repair of the FLIRs at the units, thus avoiding the previous necessity of returning the FLIRs to the manufacturer's facility. This is a major benefit to the RAF.

Another 'first' for Support Division at Donibristle is the provision of the first enhanced ATEs to test prime electronic warfare equipments for the Tornado GR Mk1.

These prime equipments have undergone extensive development programmes and Support Division has successfully completed a parallel Test Equipment development programme to ensure that the ATEs remain fully compatible with the prime equipments. The first enhanced ATE has now been fully commissioned at RAF Sealand.

# **TRACKING SUCCESS AT** SUPPORT DIVISION



GMAv's Support Division in Edinburgh has successfully completed, on schedule, a two year contract for the supply of Dual Mode Trackers (DMTs) for the RAF's new Harrier T10 Trainer.

This was the final stage in a success story which began in 1992 with a strong competitive proposal winning the order to supply the DMTs from the original manufacturer. The team effort involved in this contract has been recognised since the outset.

The DMT is the Prime Weapon Aiming System of the Harrier GR7. The T10 is the latest two seat trainer for the RAF and will be used to convert pilots to the night capable Harrier GR7.

A celebration was held at Support Division in recognition of the team effort which culminated in the successful completion of this contract. Although many departments within the Division were involved, members of Electro Optics and Production were particularly active in Team effort - a celebration.

ensuring that the work was completed on time.

Douglas Bennett, Divisional Managing Director, attended the celebrations and said, "This project showed ingenuity at its best in all aspects. In convincing customers of its manufacturing and delivery schedules it proved to be a better and faster route than any other so far."

#### **GEC-Marconi's Advanced Automotive Technology** Development

GEC-Marconi's experience is now being directed towards the automotive industry and its capabilities can be adapted and developed further to address a variety of customer requirements and operational scenarios.

GEC-Marconi is currently using its core technology expertise in electro-optic radar, signal processing, systems integration and tracking techniques, towards an integrated automotive sensor sub-system for obstacle detection and avoidance. It has been exploring 'dual use' applications of its core activities for several years and smart sensors for the automotive field has become one of the potentially more successful areas. GEC-Marconi has won contracts in the two major European Automotive R&D Programmes, DRIVE 2 and PROMETHEUS.

Under Prometheus GEC-Marconi has applied the latest in electro-optic radar techniques to the requirements for short range obstacle detection. The Lane Change Aid (LCA) scans an area to the side of the vehicle and provides drivers with information on adjacent vehicles when they are performing lane change manoeuvres. The Reversing Aid (RAID) scans across the rear of the vehicle to identify both position and range of all obstacles in a 180 degree arc out to a range of 3 metres. Using a 2-D display this enables the driver to safely reverse around them.

In addition GEC-Marconi's Displays Systems Group in Edinburgh is using a HUD in the Prometheus Vision Enhancement project.





The Rt Hon. Roger Freeman MP, Minister of State for Defence Procurement, accompanied by Mr Jeremy Wright (Private Secretary) and Air Vice-Marshal Peter Norriss - DGA2. visited the Rochester site on 15 February.

The visitors were briefed on a number of GMAv's programmes, in particular the Company's bid for the UK Attack Helicopter.

The accompanying photographs show: (i) The Rt Hon Roger Freeman MP being greeted by Sir Geoffrey Pattie (Chairman, GEC-Marconi Limited) and Dr Saul Lanyado, (GMAv's Managing Director.

(ii) The Minister is seen being 'talked through' the Venom Simulator by Dave Moore.

**Supplier to Lockheed** In May 1993 Lockheed (Fort Worth) presented their new Supplier Rating system to DSGR. Not simply a measure of product quality, the system assesses all aspects of supplier responsiveness including programme management and response speed to requests for information. At the conclusion of the presentation the F-16 project team made a statement to Lockheed that they were only interested in one level of performance,

namely 'excellent'. achieve 'excellent То meant scoring between 90 -100% each quarter. At the end of the first quarter DSGR achieved 93% and were appropriately rated. However, at this stage, the required criteria changed and 'excellent' became 95 - 100%. The F-16 team were not deterred; they produced 98% for the following two quarters and

As a result of producing these four consecutive 'excellent' ratings, DSGR was formally recognised as an 'Outstanding Supplier' to the Lockheed Corporation. This formal recognition was symbolized in the presentation of a wooden plaque to Trevor Knight (DSGR General Manager) by Larry Wilson. DSGR is one of only three suppliers to Lockheed who have achieved this recognition. It is a tribute to the F-16 team's spirit and all GMAv's support activities, that DSGR's largest customer them as sees truly outstanding.



100% for the last two quarters. Formal presentation of the wooden plaque.

Prometheus technology, on show at BMM '94. **DSGR, Outstanding** 

# **FIREFIGHTERS AID PROJECT LAUNCH**



A GRAPHIC display of firefighting expertise helped to launch one of GMAv's latest dual use technology initiatives

Visitors - including the County's Lord Lieutenant, Lord Braybrooke - and press at GMAv's Basildon base watched as a crew from the Essex County Fire and Rescue Service demonstrated a helmet-mounted uncooled thermal imaging camera.

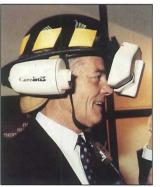
The compact device, developed from GEC-Marconi and DRA research, enabled the firefighters to see clearly inside a smoke-filled room as they staged a mock rescue. Thermal images from inside the room were channelled to the audience on a television monitor

Station Officer Lee Howell, who took part in the demonstration on 29 November, said afterwards that the camera was a boon to search and rescue work: "The image is extremely clear and the benefit over hand-held devices is that you have both hands free. In fact, the quality of the pictures make certain safeguards essential. You will have noticed that the man with the

camera was actually second into the room. This was to deter him from obeying the impulse to go straight to a body if he saw one on the thermal imager.

"It is important that the camera is used as a supplement to existing search techniques and not as a replacement although, of course, the safety benefits and time saving from the device will be enormous."

The Dual Use Technology Agreement encompasses the Electronics Sector at DRA Malvern, GEC-Marconi Materials Technology (GMMT), at Caswell, and the Sensors



Sir Donald Hall tries one of the helmet-mounted cameras.



(L-r) Paul Sutcliffe, Assistant Chief Scientfic Adviser (Research), in discussion with Sir Donald Hall - GEC-Marconi's Senior Defence Advisor - and John Chisholm, DRA's Chief Executive.

Essex Fire Service crew members after their mock rescue in a smoke-filled room.

Division of GEC-Marconi Avionics (GMAv) at Basildon the same team that won the Prince of Wales Award for Innovation in 1993 and was a 1994 finalist for the Royal Academy of Engineering's McRobert Award for Technical Innovation.

The aim of the Project is to make government-funded defence-related research into uncooled thermal imaging available to the civil sector.

Paul Sutcliffe, Assistant Chief Scientific Adviser (Research), and MOD customer for the technology research programme, welcomed the Agreement: "At the end of the day I believe this project could enable us to get a potentially battlewinning technology into the hands of our front-line troops earlier and more cheaply than if the Project had not existed."

Cairns and Brother Inc. a leading US manufacturer of firefighters' equipment, is collaborating with GEC-Marconi in the development of the helmet-mounted firefighters' cameras, which are already undergoing trials with the Atlanta, GA, Fire Department in the USA and the Essex County Fire and Rescue Service in the UK.

The detector technology has also allowed a camera, similar in size and weight to a amcorder, to be produced This is being made available to the emergency services, offering a true surveillance capability by day and night.

New user groups, will find the technology affordable for a wider range of applications. The MOD can benefit from the reduction in cost and be able to exploit systems for new defence applications.

# **APPOINTMENT OF** SIR PETER HARDING

Marshal of the Royal Air Force, Sir Peter Harding will join the Company on 26 March 1995 as Deputy Chairman of GEC-Marconi Limited. He will report to Peter Gershon, Managing Director, and be based at Stanmore.

Sir Peter has had a distinguished service career culminating in his appointment in 1994 as Chief of the Defence Staff. He will be actively involved in promoting GEC-Marconi's image, influence and capabilities with international customers and will assist the Company's





major export orders. In addition, he will work closely with the Managing Director to help create an environment at all levels in GEC-Marconi, to emphasise the importance of understanding and satisfying its customers. Sir Peter can be seen in the

businesses to identify and win

accompanying photographs, taken during his recent visit to Sensors, Basildon.

(i) This shows Sir Peter (second left) discussing the multi-role turret with Sensors' MD David Laybourn, Sir Donald Hall – Senior Defence Adviser, GEC-Marconi - and Mel Bennett.

(ii) Angelo Bergonzi explaining optical processes to Sir Donald Hall (cr) and Sir Peter Harding (r).

# **BLUE HAWK GOES TO CHINA:** Beijing Expo '95

Electronic and Naval Equipment Expo '95, sponsored by the General Staff of the People's Liberation Army of China, was held in Beijing from the 18-20 January 1995.

GMAv's Radar Systems Division, based at Milton Keynes, shared a stand with GEC Naval Systems and displayed both the Blue Hawk multimode pulse

The International Defence Doppler Radar and the Super Skyranger airborne radar system. These products have been designed for the export upgrade market. Blue Hawk is aimed at the conventional radome designed aircraft such as the Chinese Super 7, Mirage III and F-5, while the Super Skyranger is aimed at the small nose 'bullet

A tremendous amount of

intake' MIG type 21 aircraft.



Blue Hawk radar, on display in Beijing.

interest was shown in both radars, the highlight of the Show being a visit to the stand by the Deputy Commander of the People's Liberation Army Airforce (PLAAF). The GEC contingent also took the opportunity to give private briefings to the PLAAF and to representatives from the Aviation Industries of China (AVIC), the China National Airborne Equipment Corporation (CNAEC) and the China Aircraft Industrial Corporation (CAICA).

## GMAv's Contract for AQS 901 Modifications

GMAv has been awarded a contract by the UK MoD to supply modifications to the AQS 901 Acoustic Processor currently in service on-board the UK's Nimrod MR Mk2 maritime Patrol Aircraft.

The modifications include the integration of ruggedised commercial hardware and Commercial Off The Shelf (COTS) software with the existing fitted systems and will provide the operators with the latest in colour bearing/broadband processing facilities.

These new facilities will provide a significant gain in detection and tracking capability.



The Nimrod's interior.

## **NATIONWIDE LAUNCH OF EMC TEST CENTRES**

twelve major EMC Test laboratories across the UK under the "EMC Test Centre" logo.

Stretching from Donibristle in Fife, Scotland to Portsmouth on the south coast, the Test Centres provide third party test house services.

First witnessed more than a year ago, the embryonic beginnings of this venture grew from an initiative developed by GEC's EMC Adviser - Stan Robson - from GEC-Marconi's Stanmore Headquarters. His remit was to ensure that all within GEC recognised the full importance of the EU Directive 89/336/EEC and would be ready for its legal implementation on 1 January 1996.

In the last twelve months GEC's Special Interest Group (SIG) for EMC, chaired by Stan Robson, has introduced many innovative ideas which they are now keen to share with manufacturers countrywide. The accompanying advertisement reflects GEC's intent to make itself available to as wide an audience as possible.

The spectrum of expertise being offered by the EMC Test Centre is considerable. With nearly 40 screened rooms at their disposal - mostly anechoic chambers, one of which is the largest commercial chamber of its type in the world, and NAMAS, FCC and NVLAP accreditations, there are no EMC requirements which cannot be satisfied.

Those fo tures are stock-in-trade for this most complete of UK-wide organisations. As David Carr - the Marketing Services Manager for GEC-Marconi Avionics and Chairman of the GEC EMC SIG Marketing Group - explained, "No other organisation in the world, let alone the UK, has such a co-ordinated and comprehensive set of facilities and group capability in this most innovative area of regulatory expertise".

[Note: This is only a brief introduction to the EMC Test Centre. Further information,

GEC has announced the integration of its including an outline of the work undertaken at each EMC location, can be obtained from David Carr at Rochester - Ext. 4047.]

▲ Nimrod MR MK2 aircraft.

GMAv's AQS 900 series of

acoustic processors continues to

form one of the Company's most

successful business areas. In

addition to supplying the AQS

901 for the RAF Nimrod MR Mk2 and the RAAF P-3C Orion Maritime Patrol Aircraft, the Company has supplied versions of the successful AQS 902 lightweight acoustic processor to a variety of customers including the UK, Royal Swedish, Italian, Indian and Far Eastern Navies.

GMAv's team (John Palmer,

Chris Powles and Colin

Minter) with Italian Air Force

technicians and their Officer

in Charge, Cpt Donato

Piccione (centre) - in the

first Tornado base servicing



# SUPPORTING THE ITALIANS

Under a Memorandum of Understanding signed in March 1994, the UK MoD is to lease 24 Royal Air Force F-3 Tornados to the Italian Air Force for a nominal period of ten years. The IAF currently operate the Tornado IDs.

Two Squadrons of 12 aircraft each are being deployed at Gioia del Colle (near Bari, on the 'heel' of Italy) and at Cameri (near Milan, in the North). The first aircraft is due to fly out in July 1995.

An MoD Lease Project Team is currently overseeing the enterprise to provide all the necessary equipment, spares, training and documentation.

GMAv's Foxhunter radar team at Milton Keynes has been contracted to order, repair, and modify the required radar support test equipment. They have surveyed the selected sites and have submitted installation plans. The team has also hosted a number of visits by aircrew, groundcrew and Italian Defence personnel during their liaison and training courses in the UK.

The activity coincides with planned Foxhunter radar upgrades to Stage 2G\* standard for the RAF who, additionally, support their own detachment at Gioia del Colle as part of Operation Deny Flight.



## **Additional Kit For Eurofighter**

Display Systems Group, Edinburgh has been selected by British Aerospace, acting on behalf of the Eurofighter consortium, to develop the Head Equipment Assembly (HEA) for the EF2000 aircraft.

More commonly referred to as a Helmet Mounted Display, the HEA is a fully integrated display helmet system incorporating night vision sensors, optical helmet tracking, visor projected display communications and life support systems. The Helmet presents a challenging development programme for DSGE and their associated team members.

The Helmet displays aircraft flight information, weapon and sensor data as well as image intensified and thermal imaging pictures, allowing all weather day/night flying and operation of off-boresight weapon systems and target cueing.



DSGE's Head Equipment Assembly.

# David Awarded MSc

David Hambley, Principal Engineer at GMAv's Electro-Magnetic Compatibility (EMC) Test Centre in Scotland, has been awarded a Master of Science degree in EMC by Hull University. David is now a member of an élite band of some twenty specialists worldwide who hold this qualification.

As Chairman of the EMC Club in Scotland, an independent Organisation supported by the DTI and the Scottish Office, David is dedicated to the pursuit of excellence and is a key player in the drive to increase awareness of the relatively new and complex subject of EMC.

Products manufactured after January 1996 will have to comply with European regulations which seek to reduce and control the amount by which electrical equipments interfere with each other.

Through the dedication and professionalism of staff such as David, the EMC Test Centre at Donibri

numerous successes. These have resulted in the Test Centre being acknowledged as a centre of excellence, having been awarded Competent David Hambley.



# VALUE ADDED TRAINING

The air in production is full of improvement buzzwords like 'cellular manufacture' and 'non-value added', but 'nailing' them to the workbench and 'cashing them in at the bank' is another matter. However, that is what the twelve members of Rochester's Manufacturing Improvement Programme undertook.

At the beginning of 1994, John Clover, GMAv's Production Director, and Fred Wickham, Assistant General Manager of Flight Systems Production, needed a training event to consolidate recent team changes and focus attention on organisation improvements.

Rochester's Training Department negotiated with the Integrated Engineering Team at Dunchurch to (i) adapt their Manufacturing Improvement Programme and, (ii) greatly extend the projects through which the "vorsprung durch techniks" are achieved. The training took place in the Rochester Staff Development Centre and was attended by participants from across GMAv.

The two-part programme was tutored by Steve Croxall and Steve Walsh, and reviewed latest manufacturing methods from around the world. It took a practical approach to ways of eliminating activities which do not 'add value' to the business, emphasising simplicity and balancing the 'pros and cons' of various manufacturing strategies, such as making things in smaller batches to improve workflow and reduce the costs of large stocks. The latter was demonstrated by an evening team game involving stapling a number of coloured cards and papers together. (You had to be there!)

Seven months after the Course the projects' progress were reviewed by John Clover, Production Directors and Managers from across GMAv.

The results were quietly impressive. The savings and gains achieved varied from thousands to tens of thousands of pounds, with more to come when full production of all relevant items begins.

Another programme is scheduled at Rochester for 1995.

# **High Speed Polishing Machines**

impressive results were

achieved within a few days,

by the two operators and a

Production Engineer who

had undergone an intensive

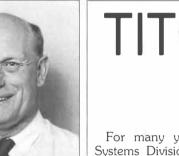
in-house training course.

Sensors Division's Optical Manufacturing Unit (OMU) has recently invested in a suite of high speed smoothing and polishing machines.

This new innovation in high accuracy lens manufacture will increase the production level and efficiency of the Division's Glass Shop. In the new high speed section conventional polishing methods have been abandoned, with old fashioned pitches and grinding powders replaced by diamond pellets and polyurethane polishing foils.

Commissioning started in the late Spring of 1994. Very

Body Status by the DTI. It has also received several accreditations in recognition of its comprehensive test service.



# **TITCHFIELD'S PREFERRED** SUPPLIER AS A WARD

For many years Power Systems Division at Titchfield has worked with Customers, such as McDonnell Douglas Aerospace, to develop good relationships as a basis for future project collaboration.

As equipment Suppliers to the AV-8B and T45 TS programmes, Titchfield has enthusiastically participated in the Preferred Suppliers Certification Scheme.

The Scheme consists of three achievement levels Bronze, Silver and Gold.

Future Suppliers to McDonnell Douglas who have achieved these levels qualify for bonus points when bidding for new work, as opposed to those Companies who are not Preferred Suppliers.

The manufacturing team

has produced lenses for the

F-Fire and Felix systems, all

well within design tolerances

and with greatly reduced

cycle times.

A team from McDonnell Douglas visited Titchfield to evaluate Business Systems under the categories of Technology, Quality, Delivery, Costs and Engineering, and was satisfied that these met the Bronze level. GMAv is committed to progressing and achieving the Silver Level by the end of 1995.

cations Test System to test

various functions of digital,

cordless, portable telephones

and their associated base-

The sophisticated CT2000

Test System comprises a com-

plete integrated automatic

tester which enables testing of

both electronic and digital

data. The test equipment has

the ability to perform fast,

accurate and repeatable meas-

urements on CT2/Telepoint

equipment while at the same

time allowing the operator to

select the required channel to

Support Division in Doni-

bristle has developed the

CT2000 in close co-operation

with organisations involved in

the manufacture and opera-

tion of CT2/Telepoint.

be tested.

station equipment.

For the presentation of the Bronze Award a receiving team comprising Anne Stait, Yvonne Laithwaite, Peter Clarke, Tony Wright, Jim White and John Quantrill were selected from areas associated with the production, assembly and test functions.

Presenting the Bronze Award were Bob Soucy, Vice President and General Manager, supported by Bill Stowers, Vice President Procurement, and Jack House, Director Supplier Management and Procurement. All three play a major role in the success of the Production programmes for AV-8B and T45 projects.

The accompanying photograph shows the Award Presentation taking place in the Assembly Clean Room, with John Rowe accepting the Bronze Plaque and Banner from Bob Soucy, on behalf of the team and the Company.



WORLD-WIDE COMMUNICATION GMAv has won a contract The success of the CT2000 to supply Hutchinson Paging Communications Test System Ltd, a Hong Kong based has resulted in a growing Company, with a Communi-

number of companies purchasing the equipment, including Motorola Inc.. Test equipment flexibility has enabled its utilisation in roles as wide ranging as research and development through to improved customer network support activities.

The CT2000 is the only commercially available automatic test system designed expressly for the testing of the specific CT2 signals at radio frequencies, audio phonic and the telephone network interfaces.

The system also incorporates extensive digital data protocol monitoring and analysis capabilities to determine whether the telephone link set-up and establishment is correct.

# Cpt Jeff Schmidt Visits Sensors Division



Cpt Jeff Schmidt (back row, centre) with AV-8B NAVFLIR and DCMO team representatives. Richard Lynch, Lyne Schomak and Jenny Cosh received the awards on behalf of their colleagues.

On 20 December Captain Jeff Schmidt, Commander Defence Contract Management Office (DCMO) based at GMAv Rochester, visited Sensors Division at Basildon and presented both the GMAv AV-8B NAVFLIR and DCMO teams with awards, in recognition of their spares achievement.

The Company has a prime contract with the US Navy to supply NAVFLIRS for the AV-8B, supported by spares and repair contracts. DCMO is the on-site customer representative and is strategic in GMAv's interface and business with the customer.

Captain Schmidt, in his presentation address, emphasised the team effort between GMAv and DCMO in meeting the requirements on the spares contracts and achieving this award. The award demonstrates the Company's commitment to, and relationship with, its customers in achieving mutual satisfaction.

GMAv's award was received on behalf of the team by Richard Lynch, that for DCMO by two of its team members - Lynn Schomak and Jenny Cosh.

#### **Open University Successes** Support Division had been

studying since February 1994

and, via a myriad of hurdles. ie. assignments, tutorials, a

Summer School and an

examination, had arrived at

the time when the result was

awaited, accompanied by an

offer of a place for a repeat

Support Division (Roches-

ter) members for whom

results have been recorded

Dale Broadbent - a pass on

the Mathematics Foundation

Course; Mike Giblin (an asso-

ciate student) gained a grade 2

pass on Data Models & Data-

bases; Steve Fox and Keith

Washington gained distinc-

tions on the Science/Technol-

ogy Function Courses, and

Jane Henry (formerly West) -

a grade 2 pass on the

Fundamentals of Computing.

Success for Jane in 1995

Further information on OU

Tel: GNET Access code +

344 + 3110. Fax: GNET

Access code + 344 + 3140.

opportunities can be obtained

leaves her requiring one full

credit to reach degree

during 1995.

are:

VISION has been notified of two Open University successes:

Tony Sutton, Snr Project Engineer - GMAv, Edinburgh [OU in Scotland - BSc (Open) Graduate in Computing & Mathematics.]

Gary Gallagher, Snr Development Engineer - GMAv, Rochester [OU South East Region - BSc (Open) Graduate in Mechanical Engineering.]

Each student has studied at home in their spare time, taking from five to six years to gain a degree, using special study literature and audio visual material. Written assignments were also undertaken and examinations sat each year.

Also, whilst many of us abandoned work for the Christmas and New Year celebrations, other Open University students had more sobering thoughts: their 1994 course results.

The more academically 'bent' in Rochester's Product

#### **Editorial Note**

standard.

As Editor I welcome contributions for VISION and the GEC magazine TOPIC from all employees.

Your contributions should be addressed to the Site Coordinators/Correspondents or in the case of Basildon, direct to me. The same applies to any comments, relating to the Magazine's content.

I can of course, be contacted direct: Colin Langlands **Editorial Officer Business Development Group** 

Sensors Division, Basildon. VISION 7 CORRECTION

**Titchfield Nominated for Ozone Protection Award** 

#### **It Sometimes Happens!**

No matter how diligently one proof-reads a large volume of copy, typographical errors can, and do, occasionally happen. The following verse (author unknown) serves to demonstrate the problem from an Editor's point of view:

from Personnel Departments or direct from The Open University, PO Box 625, Bletchley MK1 1TY.

[Editorial Note: If readers know of other OU success stories, please contact the Editor with relevant information.1



## **RSD's** Radar Simulator/ **Stimulator**

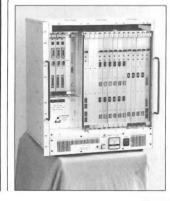
Radar Systems Divison's expertise and knowledge extends to the design and manufacture of associated test equipment for many types of radar applications.

One such application is the control and simulation of the operational environment in which the radar functions. To this end RSD has produced a Radar Simulator/Stimulator (RSS) which provides a high tech., cost effective and flexible solution to this requirement.

Comprising a Radar Simulator Stimulator Controller (RSSC) and a Radar Simulator Stimulator (RSS), the equipment provides a realtime dynamically controlled simulator of a radar external environment, ie the RSS SIM-ULATES the environmental and STIMULATES the radar to act to the environmental demands.

The RSS is already in production and has been selected by LORAL for radar performance testing and system integration of the Blue Kestrel radar into the Merlin EH101 helicopter project. The equipment has been successfully demonstrated to the customer.

A flexible equipment, RSS can be easily adapted for other similar applications. Further enquiries have been received and it is hoped that additional orders will come from these.



## **Bob's** Quality Prize



Bob Bolan, Senior Quality Engineer at Support Division, Edinburgh has recently returned from an unexpected trip to Florida. This came about as a result of winning a competition organised by the Institute of Quality Assurance (IQA) in celebration of their 75th anniversary.

Bob said, "I had to answer five questions related to the new ISO 9000 Quality System". Bob, whose name was the first to be drawn out of the box, was one of 220 entrants.

The main purpose of the Florida trip was to attend IMPRO '94, a Quality Conference. The Conference was divided into several Key Note Sessions, over three days. Bob said "I particularly enjoyed the Session hosted by the Disney Management Team. They described how. through understanding the customer, by training their personnel and planning and managing their responses, they deliver a quality service which has people coming back time and again".

However, the highlight of the Conference for Bob was the opportunity to witness the 'Master of Quality' Dr Juran - the founder of the Juran Institute and

#### **ELECTRONIC GOLFING** SOCIETY

On February 9th the Electronic Golfing Society's (EGS) AGM was held at the RAF Club in Piccadilly. GEC-Marconi was represented by Peter Venton (GMNS), Frank O'Neill (GMDS), Alan Brandon (MRCS), Ian McNamu (GMCS) and Alan Heron (GMAv).

The EGS was formed in 1960 by Ray Brown, the then Managing Director of RACAL, as a means by which senior representatives of the various UK electronics companies could meet with senior officers of the armed services and MoD, enjoy good natured competition whilst developing an understanding of each other's problems in the defence procurement environment.

The EGS has remained true to Ray Brown's vision and

a mere 89 years young - in action for the last time at his final public appearance.

Dr Juran's presentation was entitled 'The Last Word, Lessons of a Lifetime', and lasted throughout the day. His radiating energy, coupled with his enthusiasm for his subject, kept the 600 delegates enthralled. Bob commented, "I was thrilled to have had the opportunity to witness Dr Juran's magnificent performance and benefit from his wealth of experience".

However, it was not all work for Bob as he was determined to see as much as possible on his first trip to America. He visited Disney World and fulfilled a long-held ambition to spend a day at the Kennedy Space Centre, which included a bus tour round the launch pads.

Perhaps the very last word

has played matches each year with the RAF, RN and MoD since its inception. The Army match started some ten years later. Throughout its existence

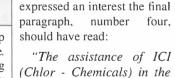
the burden of administration has been carried by RACAL, whilst the captaincy has been circulated on an annual basis. Each of the member companies has been represented over the years. In 1994 the honour was bestowed on Alan Heron of GMAv in Edinburgh.

The 1994 matches were played at John O'Groats, Waterlooville, Swinley Forest and Catterick Golf Clubs. In the interest of good customer relations the matches against the RAF, RN and Army were all lost comprehensively whilst an honourable draw was achieved with the MoD !

should be left to Bob - "The trip was an experience of a lifetime. I'm now hoping for that big lottery win to prove the Disney Organisation right and visit Florida again!'



The typographical error is a slippery thing and sly. You can hunt 'til you are dizzy, but still it will get by. It shrinks down in the corner and it never stirs or peeps. 'Til the forms are off the presses, it's strange how still it keeps. The typographical error is too small for human eyes 'til the ink is on the paper, when it grows to mountain size. The boss just stares with horror, then grabs his hair and groans. The copy reader drops his head upon hands and moans. The remainder of the issue may be clean, as clean can be. But the typographical error is the only thing you sea!



search for acceptable alter-

natives is acknowledged".

(Page 3).

Apologies for the loss of the last line. For those who have

#### Continued from page 1

#### **Awards Presentation**

In presenting the Awards Mrs Shephard said, "We are all grateful to The Caroline Haslett Memorial Trust and The Institution of Electronics and Electrical Incorporated Engineers for their sponsorship." She stressed the importance of the education sector producing a balance of high calibre men and women with qualifications relevant to the different grades of registration for engineers, in order to meet industry's needs.

Mrs Shephard continued, "Today's finalists are an excellent testimony to the quality of education and training available for Incorporated Engineers. I have been most impressed by the quality and commitment of the finalists in this year's competition."

In concluding she congratulated all the contenders on their magnificent achievements and wished them success in their future careers.

#### **Young Woman Engineer of the Year**

The coveted Young Woman Engineer of the Year Award was won by another GEC Company. Hayley Gladstone, a Senior Project Manager with GPT in Coventry, won this prestigious Award 12 years after being told that she had no chance of finding a job in a male-dominated industry. Having since overseen major projects, including the

Modemisation of communications on the Peking Metro, Hayley is now based in Hong Kong managing a contract for the new airport extension!

Julie FINCH, age 20, from **Basildon, Essex. Test Engineer** 

Having completed her secondary education at Honley High School, Huddersfield, Julie attended Blackpool and Fylde College and, by 1993, had successfully completed BTEC National and Higher National Certificate courses in engineering - specialising in communications.

Julie commenced full-time employment in July 1993 as a Test Engineer with GMAv and is currently engaged testing a wide range of electronic and optical subsystems on a complex avionics system. Throughout the testing process Julie has a high degree of customer contact culminating in customers witnessing the final acceptance.

Whenever times permits Julie



Julie, at ber test-station.

JULIE FINCH ..

## .... A PROFILE

travels to Huddersfield to see her family. She is a keen motorbike enthusiast, an interest inherited from her father - they visit many of the motorbike shows together, travelling on Julie's Kawasaki! In quieter moments Julie enjoys playing the flute.

#### **EUROCAE 'UNCLUTTERS' THE AIRWAVES** Support Division in Edin-



# The Last Of The Few Keeps Rolling!



From Avro Vulcan to Airbus A340, four decades separate the classic bomber from the modern airliner. The Repairs facility at Titchfield has the necessary knowledge and skills to support both, as well as innumerable aircraft types inbetween.

The Avro Vulcan 603 Club, a group of dedicated enthusiasts, approached GMAv, Titchfield to effect a repair of a PAC 100 Fuel Boost Pump for a Vulcan B Mk2 Bomber. This aircraft is being carefully maintained by the team who return to their Woodford site each week to maintain this working example, and they have high hopes of flight in the future.

Martin Haysom, a Fitter Test Technician who started as an apprentice over 22 years ago, needed to draw on all his experience to build a working pump from the two damaged units which had been returned.

A search of the archives uncovered drawings and specifications for the product. Stripping of the two units revealed some irreparable parts no longer available, for example, the drive motor in one unit and the essential rose shaped impeller in the other. However, with careful selection of usable components, it was possible to make assembly tooling and build test rigs to the original pattern enabling one fully functioning pump to be produced. The accompanying photo shows Martin Haysom holding the finished pump.

All at Titchfield wish the 603 Club luck for the future and look forward to seeing the aircraft in flight.



action.

The European Organisation for Civil Aviation Equipment Working Group 43 with the MLS/ILS Receiver.

#### **Important Milestone In** Telecommunications

At the end of January 1995, Sensors Division delivered its 1000th Cabin Telecommunications Unit (CTU) to GTE Airfone of Oak Brook IL., a major US provider of airborne passenger telephone services.

MLS Ground System at

Aberdeen Airport.

The event was a significant milestone in a programme which, together with its digital radios for the European Terrestrial Flight Telephone Service (TFTS) and Cabin Cordless Telephone System, has firmly established the Division as the leading European supplier of passenger telephone equipment to the world's airlines.

The 1000th CTU was officially handed over in Basildon by Sue Wood, General Manager Airadio, to Jim Costello, GTE Airfone's Director of Systems Engineering. The contract to supply CTUs, the core of the GTE Airfone's GenStar(R) second generation North American Terrestrial System, was signed in 1993. Production deliveries began in early 1994 and are now running at a rate of 100 per month.

the

A recent visit to Support

to observe the test rig in

Sensors Division currently has all the elements of a complete airborne passenger telephone system in production. In addition to the CTU, its Cabin Cordless Telephone System (providing cordless handsets within the passenger cabin) has been selected by 16 international airlines and its digital radio system has been chosen to provide the direct air-to-ground links for the new European Terrestrial Flight Telephone System (TFTS)



achieve its business objectives, by regularly reviewing training developing employee and needs.

Also, an Investor in People takes action to train and develop individuals on recruitment and throughout their employment, whilst evaluating the investment in training and development to assess achievement and improve future effectiveness.

The accompanying photograph shows, (1-r) Bruce Arthur, Robert Maiden and Brian Liddle, RSD Quality Manager, at the signing.



Sue Wood with Jim Costello.

principles.

# GEC-**Marconi** AVIONICS from Rochester DIDN'T THEY DO WELL? A Report by Producer Eileen Wade. Christmas Toy Gippeal 1994

As producer of 'Aladdin' you must forgive me if I seem a little biased when I say that I thought the Cast were brilliant

When I first suggested that the Cast give a performance of the Panto at the Clubhouse, in aid of the Childrens' Hospice-Demelza House, they were somewhat apprehensive. Having taken on the challenge admirably, the evening proved worthwhile and entertaining and raised a total of £277.20p.

Roger Jenner - SD(R) took to playing the Dame, Widow Twanky, like a duck to water. How could he, as Dame, not fall in love with the performance of Ray Newman - SD(R) as Abanaza?!! They both did an excellent job, too, of fillingin between scenes with Wishy Washey (Keven Saxton Customer Training). Kevin had the arduous task of catching the Dragon (Sarah Jeffreys - CQD SD(R). Sarah kept the audience on their toes by running among them, enticing them to call for Wishey. Ying and Yang (Suzanne Marshall - Canteen and Jacob Bell - CAC) made convincing Beggars with lots of appropriate ad-libbing. Linda Potter - ISG, went from one character to another as Physician and Zany Fizz - with exuberance



Scott Gillham - ISG did well to portray the stern but sympathetic Emperor, Father of the timid but beautiful Princess Chingling (Elaine Horton Canteen). As Aladdin, Tracy Ward - FCG made an ideal Principal Boy, and almost had the audience believing she was in the cave for good. The children really came across as pretty jewels, what more can be said?

There was one anxious moment when the Cast were

suddenly without a Genie, but fortunately Steven Ray, Customer Training, stepped in at the very last minute and gave a superb performance. Thank you Steven.

In fact I would like to thank all the Cast for putting up with me as Producer, let's say I get a little over enthusiastic at times, but, honestly, I do mean well! All definitely proved that it was worthwhile, Well Done!.

The Cast and Producer of 'Aladdin'.

'ALADDIN' was: Written and produced by -Mrs Eileen Wade With On Piano -**Mr Matthew Whitworth** Electrician/Pyrotechnics -**Mr Paul Barrett** Stage Hand -Mr Roy Wade



#### A Message from Dimps, **Support Division, Rochester**

I would like to say "thank you" to everyone who kindly donated toys, books and games to the Toy Appeal last Christmas, in support of the Strood Family Support Centre.

Although the response was not as good as it had been in previous years, the Centre's staff were, nevertheless, really appreciative of the support which we gave them. Many children benefited from the kindness of those amongst you who not only sorted out used toys, but who also donated new toys.

Thank you once again.



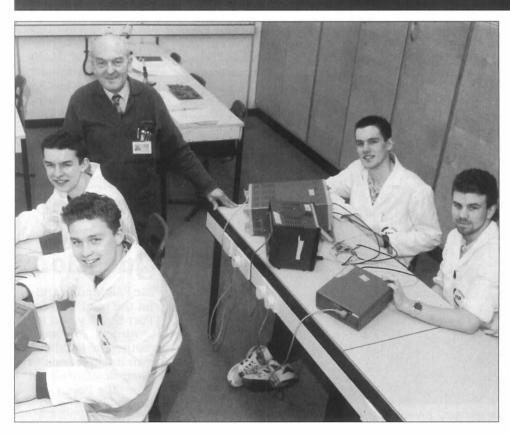
## **Photo Question:**

The object in this photograph, taken by a GMAv employee, resembles a totempole. Where is it and why?

recruited upon successfully achieving part, or all, of an OND (Ordinary National ated. Staff development and Diploma) Course at the Mid-

Pictured here are some current 1st Year Apprentices in the new Workshop. They are gathering information and skills towards their NVQ, assisted by their by instructor. From top left: John Meers (Instructor), Adam Green, Nicholas Raines, Gary Selway and Gavin Herne.

## TRA D



In 1970 the Company's Training Centre moved to larger premises at Hopewell Drive and, since then, has provided the training base for some 1680 young people starting out in an engineering career.

The Centre has seen many changes in both training methods and differing needs of young people starting engineering careers with the Company. In the last 10 years the Centre has expanded to offer first class facilities for the training and development of the skills of our adult workforce.

Continuing to meet the Company's needs in the best and most effective way the Training Centre came back home to Rochester in October 1994; not, thank goodness, to "The Cage" (is anyone prepared to admit remembering the metal sectioned-off box in

the front of the main hanger?) the intake having been but to the ground floor of Tower I, where the new Training Workshop is situopen learning facilities are Kent College. now centred in the main Training Centre in Hut 10.

As well as its location changes, the Training Department has, over the past two years, adapted to achieve new National Vocational Qualifications (NVQ) Standards, which are based on assessing skills in the work-place.

Another change is reflected in recruitment, with half of

## **PETER'S HARD MILES FOR CHARITY**

Peter Simmons, serving at GMAv Inc. Atlanta, has been logging some hard miles for charity.

Peter's brother Roland, in conjunction with an operation called Youth With A Mission, is building a Child Development Centre for AIDS orphans in Uganda, and Peter has set out to help raise funds towards the construction of the Centre.

In August Peter ran to the 14,110ft summit of Pike's Peak in Colorado and then, in October, ran rim-to-rim-torim in the Grand Canyon, some 42 miles and 20,000 ft of elevation change. The accompanying photo shows Peter on the South Kalbab Trail during his descent into the Canyon.

After the second run Peter said, "Although we had been training hard for 18 months for these events, including restricted breathing running to simulate altitude, I could not help thinking, from about mile 35 on the floor of an 85 degree canyon, that knitting seemed like a viable hobby if ever I got out of this alive!"

Uganda currently has two million orphans, rising at the rate of some one million a year. Peter's effort, in



towards the \$100,000 needed to build the Centre.

Asked if he was going to start training for future events Peter said, "Someone with a sense of humour sent me the entry form for the Everest 120 miler. On second thoughts, I could raise some REAL money doing that one!"

The accompanying photograph shows David Frost receiving a television set from John Colston, Managing Director of Flight Systems Division, Rochester on the occasion of his 25 years with the Company.

David joined the Marconi Company at New Street, Chelmsford on October 1st 1969. After transferring to Basildon in 1970 as Divisional Accountant in the Aeronautical Division, David became Commercial Manager in 1982 and Financial Director of GEC Sensors in 1987. He transferred to his current position at Rochester in 1992

David's wife Sue attended the presentation at Rochester, as did other colleagues from Basildon including Christine Little, Ron Lowry and Terry Waine.



every night.

on Ext. 3502.

be for the festive season!

**SOCIAL CLUB ...** 

Thursday 06 - Sunday 09 April 1995.

Distillery are included in the itinerary.

and three night's dinner, bed and breakfast.

.... Forthcoming Attractions

**APRIL 1995** 

**EMERALD ISLE TOUR** 

A four-day tour to the Emerald Isle is planned for

The cost of £125 + insurance will include: Return ferry

Waterford, Blarney Castle and the Middleton Whisky

**DECEMBER 1995** 

**"TURKEY & TINSEL" IN JERSEY** 

repeated. The cost of £150 will include the return flight

from Gatwick, six days half-board with entertainment

The departure date is December 4th, the coach to

For details of these two events, and others including

EuroDisney and theatre outings, please contact Rod Cole

**25 YEAR'S SERVICE** 

Gatwick is to be arranged. Everything will be as it should

After last year's successful trip, the event is to be

crossings; luxury coach travel; all coach sightseeing tours

#### Gene Joyce - Retirement - 19th October 1994

Gene Joyce retired from CACG, Rochester on 19th October 1994 after completing 34 years continuous service with the Company.

Brothers Gene worked as an Having made the move Gene

Heathrow and then joined the Canadian Royal Air Force. Upon joining the Company

in 1960 he moved into QA Before joining Elliot as Assistant QA Manager. engineering role and therefore jointed FCD (CACG) in 1974.

Initially, Gene was engaged on Tornado Reliability Demonstration activities and later became involved in Tornado

Ray Dennis (1), Group Manager of CACG, presents Gene with a retirement gift.

#### Aircraft Fitter for BOAC at decided he preferred an Production Support. After 16 years he moved, in 1990, to his present job as Laboratory Steward.

Gene's interests outside work include bowling for the CACG team (as Manager/ Coach), and taking part in London to Brighton Charity Bike Rides. Gene has taken part in many veteran races at GEC Sports Days where he always managed to beat his colleague Ray Reese!



# **Malcolm Stevens Memorial Trophy** Saturday 21st October 1994

After overnight rain, and on a wet and very windy morning, sixteen stalwart anglers gathered at Rosecourt Lake to fish the annual Trophy Match in memory of Malcolm Stevens, a former angler and member of the Club who died at a young age in 1991.

After drawing for positions the event was started by the Chairman, acting for the day as match official, at 09.45 am. Some serious decisions had to be taken owing to the rain and strong cross-winds. Several visits to competitors during the match showed that, whilst no big fish were being caught. most competitors had fish in their nets. The weather changed frequently throughout the day, making fishing very difficult. A cloudburst around lunchtime soaked everyone except the Chairman who, suitably clad in full waterproof suit, took refuge with his lunch under his umbrella! The sun came out shortly afterwards to both dazzle and dry out those involved in the Competition.

The final whistle went at 14.45pm with certain participants relieved that the Match was over,

The weigh-in revealed that, in all, nearly 30lbs of fish had been caught. This proved that, contrary to popular belief, fish can be caught at Rosecourt Lake after September.

The results were:

1st: Brian Pembleton - 4lbs 11 ozs. 2nd: Henry Staff - 4lbs 10 and a half ozs. 3rd: Jim Durrant - 4lbs 4 ozs.

After the Match trophies were presented to the 1st, 2nd and 3rd placed competitors.

The competitors also agreed that the charity to benefit this year should be the Demelza House Childrens' Hospice Appeal, Therefore, the sum of £30, the total nominated match entrance fees, has been donated to the Charity.

A good day was had by all!