

GEC Avionics Primes Major New Helicopter Bid



The GEC/Bell Cobra Venom will be developed from this AH-1W SuperCobra.

GEC-Marconi is teaming with Bell Helicopter Textron of Fort Worth, Texas to offer the new 'Cobra Venom' for the British Army's future attack helicopter (AH) requirement. GEC Avionics will lead this joint bid - the first time an avionics company has primed a major project of this type.

The £2billion AH programme represents one of the largest and most important UK army contracts to be awarded this century. Initially 12 machines are expected to be purchased with an eventual buy of about 125 helicopters.

Work for the programme should involve many divisions at GEC Avionics and across GEC-Marconi.

GEC-Marconi and Bell made the announcement at a joint press conference in London hosted by Managing Director Brian Tucker and Peter Parsinen, Senior Vice President of Bell Helicopter.

Brian Tucker commented, "We are delighted to be

working once again so closely with Bell Helicopter on this very exciting programme. The 'Cobra Venom' brings together advanced technologies developed by two world leaders in their fields and provides the solution to current attack helicopter requirements. The new helicopter combines the unrivalled proven performance and reliability of the AH-1W SuperCobra airframe with the latest integrated sensors, displays and control systems to offer day and night operational capability and dramatically improved weapon delivery accuracy, both air-to-air and air-to-ground."

This joint bid is the latest and most significant step in a long and mutually successful relationship between GEC Avionics and Bell Helicopter. The two companies have been working together over a period of years exploring the possibilities for upgraded cockpit and mission avionics. Most recently the companies have proposed an upgrade package for the United States Marine Corps' fleet of AH-1W helicopters.

For the AH contracts the main competitors to the Cobra Venom are a consortium of McDonnell Douglas and Westlands with the Apache,

The GAv PDT Scheme is One Year Old

See Centre Pages for a Feature on Open Learning.

and Eurocopter with British Aerospace offering the Tiger. GEC Avionics and Bell believe that the Venom offers the combination of a proven, highly successful airframe with new upgraded avionics to reduce pilot workload and provide greatly improved weapon delivery and a 24 hour day/night capability.

The AH-1W SuperCobra which forms the airframe on which the Cobra Venom is based is not only the most versatile but also the most operationally reliable attack helicopter in the world. Throughout Operations Desert Shield and Desert Storm, fifty AH-1W aircraft operated with 92% mission availability. During the ground war many SuperCobras flew upwards of 13 hours a day in sustained operations and were credited with outstanding combat success.

The new 'Cobra Venom' cockpit will incorporate helmet displays including night vision goggles, integrated with new sensors to give 24 hour all-weather operation with accurate long range weapon delivery. Autonomous navigation systems linked to a defensive aids system will allow safe and consistent low level operations, whilst the incorporation of the latest control and display technologies will radically reduce crew workload even in the most demanding environments.

Our Partner

Bell Helicopter Textron Inc. is the world's leading producer

of rotary winged aircraft. Over the past 46 years Bell has built more than 32,000 helicopters, acknowledged as the most reliable in the world, in use in over 100 nations and accumulating fleet time at the rate of ten flight hours every minute of the day.

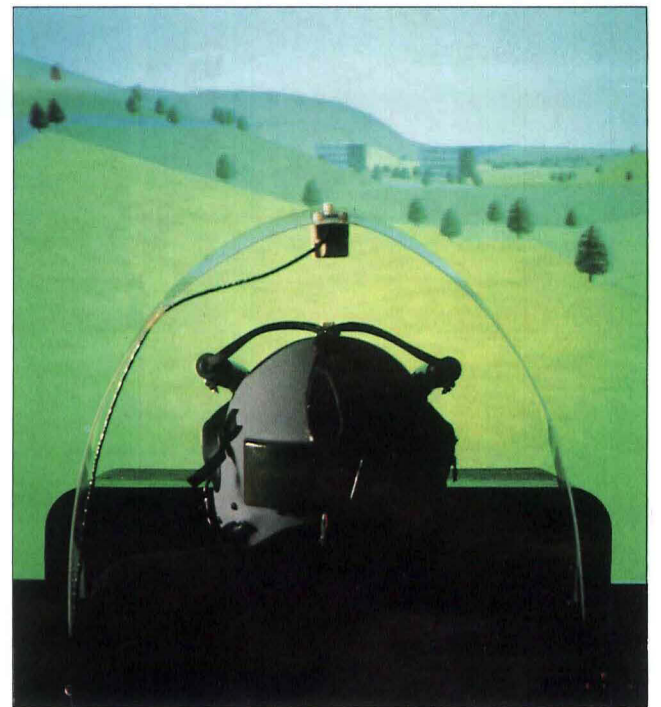
At the launch, Peter Parsinen stated: "I am convinced the stout reliability of the AH-1W paired with GEC's advanced technology will create a synergy that will provide the UK with a truly extraordinary attack helicopter."

The Simulated Cockpit

As part of our work with Bell, an innovative research programme has examined

cockpit technologies for the US Marine Corps' AH-1W. We have developed at Rochester an advanced cockpit simulator, bringing together our latest technologies into a fully integrated cockpit environment which the pilot can 'fly' in all conditions and hazards. This enables the total system concept to be proved and developed in a controlled and safe environment. Overall performance can be accurately predicted and proved to its maximum potential, quickly and easily.

In the picture, the pilot is heading over a computer generated and projected landscape, towards features which may appear not unfamiliar.



GAv Chairman Hands Over ...

... to Peter Hearne, returning from the USA

Peter Hearne has taken over as our new Chairman, following his retirement as President of GEC-Marconi US Operations earlier this year.

Peter already has a long association with our company, having joined Elliott Bros in the 50s. With Ron Howard he was one of the 'founder members' of GEC Avionics as we now know it.



Peter Hearne

We welcome him back to Rochester and wish him every success in his appointment.

Manual Worker Poster Competition Presentation

On 27 April, Brian Tucker, Managing Director, presented four cash prizes to the winning candidates of the Manual Worker Poster Competition. Both the first prize of £100 and the third prize of £30 were won by Trevor Cant, Test Technician of GSD Nightshift for two of his designs. Trevor very generously took the opportunity to present his third prize to John Bradley, Director of Personnel as a donation to the Medway Scanner Appeal. Second prize of £50 went to John Townson, Quality Technician, Leading Hand in PSD and fourth prize of £20 was won by Aaron Masih, Apprentice, GSD. All prize winners will have their posters displayed in locations throughout

the site shortly. Each winning poster makes people aware of the implications of being absent from work. They are eye catching and designed to encourage employees to improve their level of attendance.

The Manual Worker Poster Competition is just one of a number of initiatives which the Company and the Manual Workers have jointly undertaken to increase productivity by a reduction in absenteeism.

The presentation was attended by Senior Managers, Line Managers, members of the Joint Working Party on Manual Worker Sickness and all Poster Competition entrants.



The Sentinel 1000 at its base in North Carolina.

AUTOMATIC FLIGHT FOR THE WORLD'S LARGEST AIRSHIP

Almost a year ago, the maiden flight of the Westinghouse Sentinel 1000 airship took place in

Weeksville, North Carolina USA, under the control of GAV's 'fly-by-light' control system.

Now, the second milestone on the flight programme has been passed. In April, the Sentinel 1000 flew with a production standard fly-by-light system, the world's first for an airship flight control system incorporating auto-stabiliser and autopilot functions. This new system, developed by CACD, replaces the earlier unit used on the maiden flight which was developed by TSRL.

The Sentinel 1000, itself derived from the Airship Industries Skyship 600 which first flew in 1988, is a 220 ft long half linear scale version of the proposed US Navy Sentinel 5000 airship. The significance of the fly-by-light system is the use of fibre optic cables, resistant to lightning strikes and

interference, to connect the flight control computer in the gondola (cabin) to the drive units for the control surfaces, which are situated at the stern of the airship.

The new system with its automatic functions will greatly reduce the heavy workload of the pilot who may be controlling the airship for very long duration flights, perhaps in turbulent conditions. It is a major advance on earlier cable-and-pulley systems for operating the control surfaces.

A commercial certification programme, currently under way, will allow the system to be used in civil applications, such as transport, communications and surveillance.

'Knighthelm' Integrated Helmet Programme Is Awarded

Airborne Display Division has been awarded the contract for the Integrated Helmet Technology Demonstrator Programme by the UK Ministry of Defence (MoD). The contract was won in open competition against a list of international bidders.

The Helmet Mounted Display (HMD) will be flown by the Defence Research Agency on behalf of the MoD, in a fixed wing aircraft. This will generate experience of flying an integrated helmet and thus allow them to specify the equipment needed for possible future requirements.

The helmet, known as 'Knighthelm', has evolved from experience gained during extensive flight trials and tests by GEC Avionics on airframes ranging from the F-16 to attack helicopters. It represents the state-of-the-art in multi-role integrated HMD systems for use in day and night operations.

This contract award recognises the extensive experience of GEC Avionics in helmet displays, helmet mounted night vision goggles and helmet tracking systems. It emphasises the commitment and capability of the GEC-Marconi Group to advanced technology which will increase aircrew performance and ensure that the technological superiority demonstrated in the Gulf War is continuously updated and maintained. GEC-Marconi has now supplied over 1,900 helmet mounted systems to customers worldwide.



'Knighthelm' for the Aviator of the Future.



The Prize Winners with Brian Tucker; (l-r) Trevor Cant, John Townson and Aaron Masih.

GEC-Marconi at "Asian Aerospace"

GEC Avionics was a major participant in the GEC-Marconi stand at the Asian Aerospace Exhibition in Singapore in February. This event drew enormous support from Britain's industry, recognising that Asia and the Pacific Rim area are now a major prospect for international aerospace business. UK companies have long been doing business within the region, and commercial ties

are particularly strong in the aerospace sector.

The climax of the year's exhibition activity will be at Farnborough '92, but in the meantime GAV will be well represented at events such as the International Helicopter Exhibition at Middle Wallop, and at specialised shows in places as far apart as Dayton, Washington DC, Bahrain, Berlin, and Seoul.



The 'Asian Aerospace' exhibition stand in Singapore. (Photo - Flight International)

Brian Tucker said "This poster competition represents an excellent example of management and employees working together, towards a common goal, of improving the performance of the Company. This will benefit us all". He said that the initiatives taken by the Joint Working Party were already showing noticeable reductions in sickness absenteeism, and that the Working Party hoped that the improvements brought about by these initiatives would enable them to reach their target by April 1993.

Mr Tucker went on to thank Management and Union representatives for their constant and active support. He also thanked all those who entered the competition for their time and effort. "We can use the posters to remind us of the importance of our personal contribution to the overall success of the Company, and we look forward to seeing the displays around the site".

McDONNELL DOUGLAS RECOGNISES MCD ACHIEVEMENT

McDonnell Douglas Missile Systems Company, the manufacturer of the Harpoon/Slam missile, has recognised MCD's delivery achievement on the Harpoon/Slam Power Converter by the presentation of an Award for Excellence.

The award was made "in appreciation and recognition of 100% on-time schedule performance during 1990 and 1991" and was presented during a ceremony on MCD's shop floor at Nailsea on April 13th.

Al Smith, Director, Sub-contracts Harpoon/Slam, presented the award which was received on behalf of MCD by Peter Luckhurst, Production Superintendent.

To date MCD has delivered 339 Harpoon Converters and

this award is the second to be received in recognition of quality and on-time delivery. With manufacture of a further 303 converters under way, MCD's position on the Harpoon/Slam vendors team

looks set for a successful and hopefully long run.

Peter Luckhurst (l) receives the Award from Al Smith.



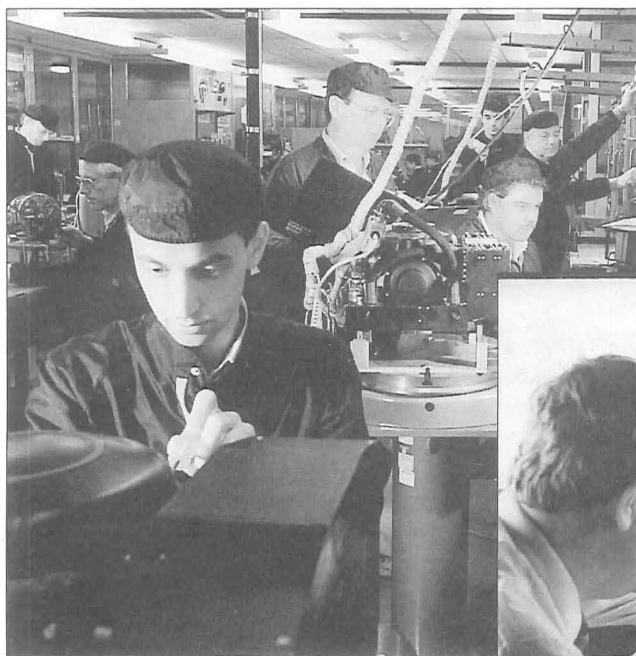
New Product Support Division Set to take the lead in Customer Support

Equipment operators around the world are increasingly looking beyond the initial purchase price of a system to its complete 'life-cycle' cost, to ensure that their equipment operates with maximum efficiency and cost effectiveness throughout its life.

Our new Product Support Division, which brings together the wealth of experience and knowledge of Logistic and Customer Services Division and of Support Equipment Systems Division, leaves us well prepared to respond to this changing requirement with a truly comprehensive and highly efficient service, which covers every aspect of the support required by both our civil and our military customers.

The new division employs 480 people and is headed by Fred Mackley who comes to PSD with many years' experience in GEC Avionics, including as Divisional Manager of our Instrument Systems Division.

Fred believes: "With this move the Company has positioned itself to take on the management of the support of major programmes, such as the BOWMAN project for which we are currently bidding". BOWMAN is the code name for the next generation of tactical radio communication systems for the British Army, and PSD is part of the GEC-Marconi/Thomson-CSF



Super-clean conditions for the checking of NAVWASS Inertial Navigation platforms.



Engineers working on the development of the V2T Automatic Test System.

team bidding against a number of our competitors.

GEC Avionics has always offered an excellent lifetime support service for its products. As an example, the workshop is still servicing VC10 autopilot and

which covers over 2,600 different units for more than 70 aircraft, ships and vehicles. Our highly skilled technicians repair equipment which spans over thirty years in its technology, from the previously mentioned VC10 systems to



Field Service Engineers discussing the Slats and Flaps control system on an Airbus A320.

autothrottle systems, originally supplied in 1957 and which are still operating well!

PSD will continue to provide this impressive 24-hour production and repair service

equipment for the Tornado and the F-16; from flight controls for the BAC1-11 and the Concorde to the latest fly-by-wire systems for the Airbus 300 series aircraft.

This capability will now be brought together with the Company's well established - and growing - business in automatic test equipment (ATE) which is used to constantly monitor and maintain a system's performance at its best, and ensure that any fault is swiftly diagnosed and precisely located. Our test equipment is already being used by British Airways, Japan Airlines and Iberia, whilst a test facility is being developed for the new Boeing 777 primary flight controls. On the military side, our latest contract success means our equipment will be used to help monitor system performance during the complex integration task for the European Fighter Aircraft (EFA).

These capabilities, combined with our well-established training school for equipment operators and maintenance staff, and our extensive publications design and printing service, give us a strong customer support facility that our competitors will find it difficult to rival.

As we went to press, it was announced that PSD has been granted the status of Foreign Repair Station for the Federal Aviation Administration of the USA.

This enables us to offer a quick servicing facility for all GAv equipment installed on American airlines flying into this country.

Success in new National Training Scheme

Helen Butler, a secretary in Flight Controls Division, has become the first student at GEC Avionics to complete a new two-year vocational training course - eight months early.

Helen is one of twenty students who will complete the scheme this year, enabling GEC Avionics, for the first time, to award a nationally recognised qualification for work carried out entirely in the workplace. Eighteen more students will complete the course next year.

Helen was presented with her National Vocational Qualification Level II in Business and Administration by John Colston, Assistant Managing Director. The ceremony was attended by GEC

Avionics personnel and representatives of outside agencies, all of whom have been involved in running the scheme. Guests included Val Keeler from the London Chamber of Commerce and Industry, which is responsible for awarding the certificates.

The new training scheme, partly funded by the Kent Training and Enterprise Council (TEC), was introduced in 1990 to bring existing training up to date and in line with new national standards offered by the National Council for Vocational Qualifications. Continuous and rigorous assessment of each student is carried out in the divisions, then approved by the Company's qualified



Helen Butler receives her Qualification certificate from John Colston.

course coordinator and verified by the representative of the awarding body.

Helen herself has been with the company for almost two years; she joined as a Clerical Trainee having spent previous short periods on Work Experience or as a Vacation Trainee in ISD and ADD.

During her first year she studied secretarial work at Mid Kent College in City Way, and it was that experience that enabled her to complete her Qualification early. But she still has time for a busy social life and sport - netball and hockey. "The training course was very useful and has helped my everyday tasks a lot", says Helen.

Open Learning Training for the Future



David Perry, Manager, Training Services at Rochester, says "In companies internationally the critical importance of training and retraining is being recognised."

"In Japan, Korea and Singapore, virtually continuous training for all is built into each individual's job. The

Boeing Company in the USA applies the motto that 'an engineer should be retrained every two years'.

"At GEC Avionics, although we know that our training opportunities are well above the UK average, our aim is to increase the breadth and availability of training so that opportunities are there for every member of staff.

"More widespread training has already been established as part of the Total Quality Management programme but the increased demand for training this has caused, combined with our broader training ambitions, requires more than the extension of traditional training techniques.

"Open Learning (OL) allows us to train a much larger number of people simultaneously whilst offering individuals the opportunity to learn at their own pace and at times convenient to them. For instance, over the last 3 months the Open Learning Centre has accepted 700 enrolments for courses with an average duration of 2 and a half days on subjects as varied as Telephone Techniques and Software Project Management.

"The success of Open Learning as a training technique is evidenced in the fact that this method of learning is gradually being employed across the board as part of many large, more structured courses".

Some Comments from Students

ADD Software Engineer on 'Management Milestones': "I wasn't sure what to expect, but now I feel that my time wasn't wasted and I have learnt something new. Good course design allows you to move through the contents at your own pace, reviewing and skipping sections when appropriate. The course succeeded well for me".

PSD Production Technician on 'Autocare': "The training was very satisfac-

tory, with all aspects adequately covered in easy-to-follow step by step actions. With the aid of the video and book, the tasks were very clear".

MASD Clerical Trainee on 'Introduction to Spanish': "The content was very good, using audio tapes and a work book. The method suited me much better than classroom training".

GSD Test Engineer on 'Managing Yourself': "Got the facts over effectively - easy to follow, light hearted

approach. Enjoyable and beneficial, the course succeeded very well".

ISD Student Engineer on 'Introduction to Business Finance': "The course was a lot better than I thought it would be, with enough in it for me to understand everything. I thought the method used (a video of people talking) was very good and kept me interested. I would recommend this course to anyone - I hope other courses are like this one".

The Seal Of Success

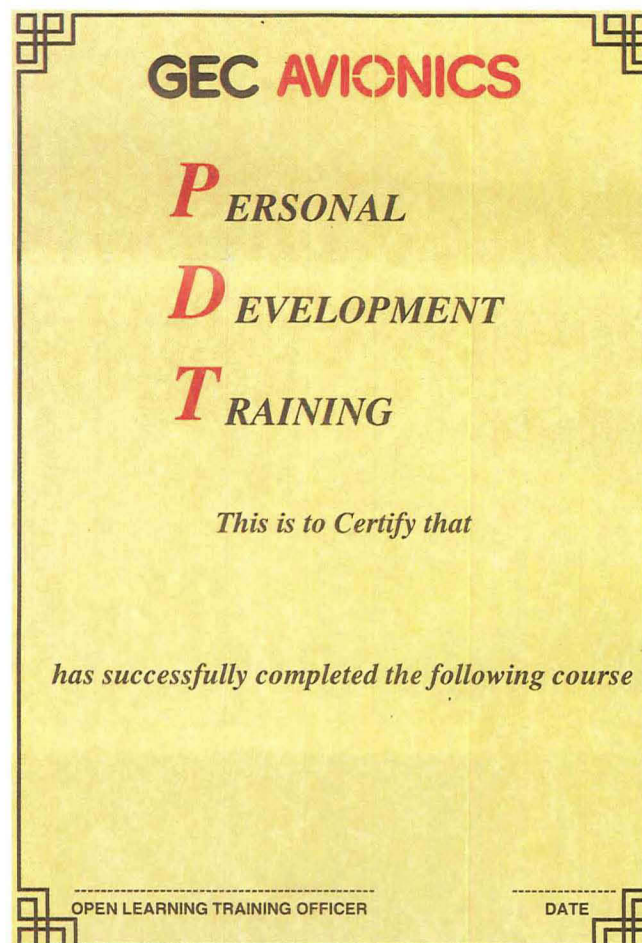
You will have noticed in your latest PDT leaflet, that Certification is now offered on some courses. Feedback from people completing courses showed that proof of successful completion would enhance the sense of achievement from the course. Many students felt that while continuous self-assessment gave them a progress check, they needed to prove to themselves that they had understood the course as a whole. A certificate is a permanent record of a successful completion.

By the end of 1992, we hope to be offering assessment and certification for most of the PDT courses. It is by no means compulsory, but will no doubt be a good way of rounding off your training. The

questions are styled in the same way as the course itself and are therefore familiar. The tests will be taken in the OL department using a PC, and are completely confidential.

Some students who have studied 'Introduction to Analogue Electronics' have already used a test facility called 'Question Mark'. This enables the computer to ask and mark the questions itself, and provide the results. This information will also enable the Training Officer to assess whether the course packages are effective, so that we can continuously improve our provision.

A blank certificate will be endorsed with your name and course.



Focus on Customer Care

Talk to most people about customer care and you will probably be greeted with a comment like "I don't deal with customers" or "that stuff is only for shop staff".

But one particular division, MASD, has welcomed the introduction of this course, recognising the importance of internal customer care for individuals, the division and the company, with over 60 staff trained so far.

Their Divisional Manager Sue Wood says "In MASD we've used the Open Learning course 'Introduction to Customer Care' to enable people to think about their

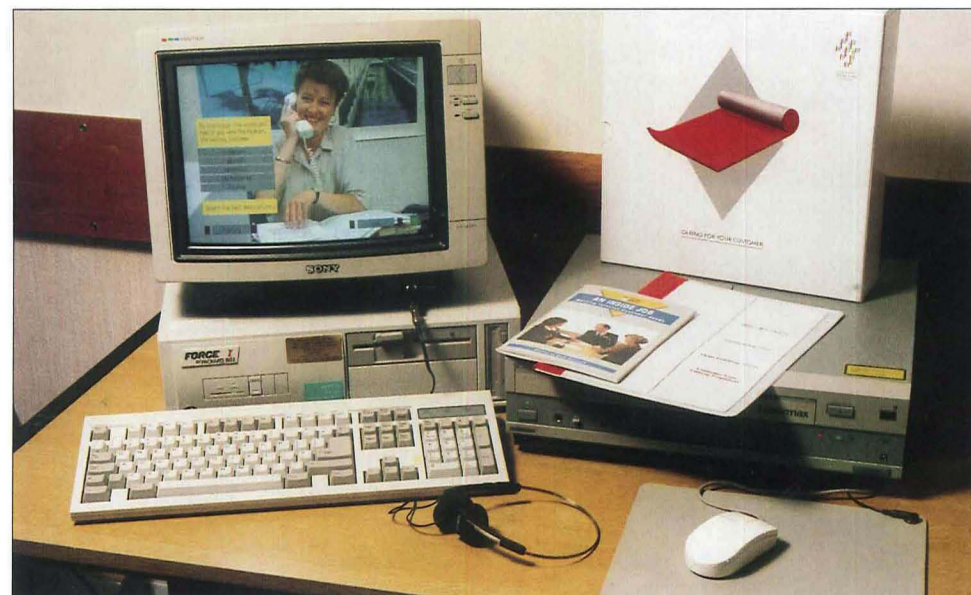
own particular customers, and to help them find a way of providing the best possible service to those customers. This in its turn helps to improve working relationships, both in the Division and other Divisions at Rochester, and to ensure that work progresses efficiently".

The open learning course 'An Introduction to Customer Care' uses a combination of interactive video, student workbooks and group discussion to promote good practice in this area.

The interactive video presents information as a mix of video, computer graphics, text and sound. Students study individually, controlling the system by mouse or keyboard. This allows them to experiment with a variety of situations to observe the effects of different choices offered to them on the screen.

The associated workbook concentrates on the working relationship between students and their colleagues - their "internal customers". Individual views are brought together and discussed at a tutored session.

A typical workstation on this course.



"The Personal Development Training scheme was introduced at Rochester in March 1991. Our initial faith in the power of Open Learning has been well justified with approximately one-third of the workforce enrolling on self development courses in the space of just 12 months.

"I would like to extend my personal congratulations to all those involved in PDT on its First Anniversary, and I look forward to continuing success as this exciting new initiative develops over the next year".

John Bradley,
Director of Personnel.

HOW IS PDT WORKING?

One of the initial aims of the PDT (Personal Development Training) scheme was to provide a wide variety of courses to all personnel - regardless of age, occupation or level.

OL and Taught Courses:

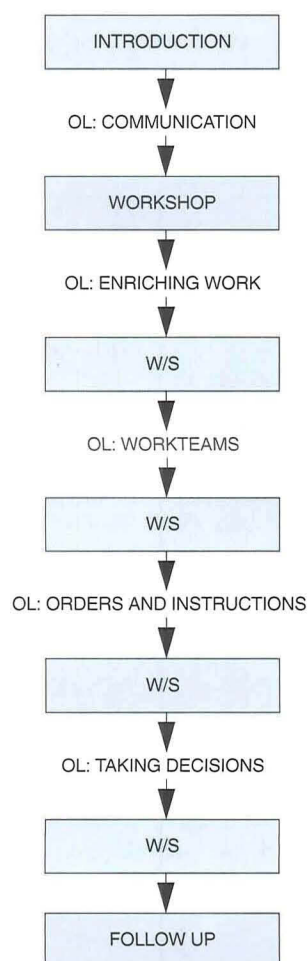
A Perfect Match

A recent development in the design of internal training is the modification of some existing taught courses to include an element of OL.

This mixture of OL and Workshops has been found to be much more effective for some subjects than either method on its own.

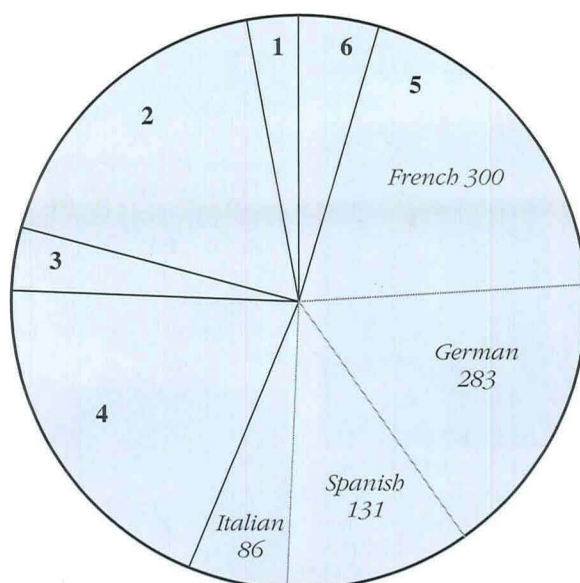
The OL packages allow people to work through the course material individually, at their own speed but within a disciplined timetable. The taught sessions reinforce and put the OL into practice.

OL has already been integrated with many courses of different types and levels, from Supervisory Skills (illustrated in the diagram) to Project Management Development, from Clerical training to Software Project Management.



The pie chart shown here gives a picture of the way that PDT courses have been used during the first year. The quantities of training provided are shown, using the same subject categories as the course list. As you can see, over half the training taken up so far is for foreign languages

Distribution of PDT courses studied over different subject areas.



1 VAX Computing 3% (40)
2 PC Computing 17% (257)
3 Technical Skills 4% (70)
4 Personal Skills 19% (301)
5 Languages 52% (800)
6 Self Interest 5% (77)
(eg Autocare, Fighting Fire)

- mainly French and German. Personal skills (Time Management, Business Finance, Assertiveness etc..) and computer subjects (Operating Systems, Wordprocessors, Programming etc..) account for nearly 40%.

Managers and Engineers form the largest group of users, but the figure of 45% is in line with the proportion of this category within the current workforce. The distribution of PDT closely matches the actual skill spread across the whole workforce at Rochester, showing that a similar proportion of people have taken up PDT in every area.

The actual figures are:

Managers/Engineers 45% (698)

Professional/Admin 22% (332)

Technical/Supervisor 15% (227)

Skilled/Semi-skilled 12% (191)

Trainees 6% (97).

Meet the staff of the Open Learning Centre

Three years ago, Paul Filmer came to GAV from the EPTU Training Centre at Cudham Hall, where he was responsible for designing and presenting OL courses. Paul managed the introduction of OL and the launch of PDT. His main role is the research and development of new OL training courses.

Proof of how OL can work for a busy husband and father, Paul did his Electronics degree by this method and has recently passed the Diploma in Training Management by OL too.

As the popularity and demand for OL grew, so did the team. Next to join, in March last year and just in time for the launch of PDT, was Carol Eves. Previously Training Officer for British Sisalkraft, Carol is now responsible for the day-to-day administration of the Open Learning Centre.

When you book your session by day it's Carol's voice you are likely to hear on the phone. But if you use the Centre late in the evening it's Jan Morcombe you see when you arrive. Jan, the latest member of the team, was enlisted 6 months ago to cover the evening period.

Jan has worked for GAV for 5 years - she started as a Clerk Typist and progressed to Word Processor Operator by working in LCSD(PSD) Publications for a year. She also worked in LCSD Engineering for 2 and a half years as Technical Assistant. She says her previous experience in Information Technology meant that she was soon at home with the high-tech set-up in the OL centre where her duties include receiving students and settling them into their OL programmes.

The OL Team : (l-r) Jan, Carol and Paul.

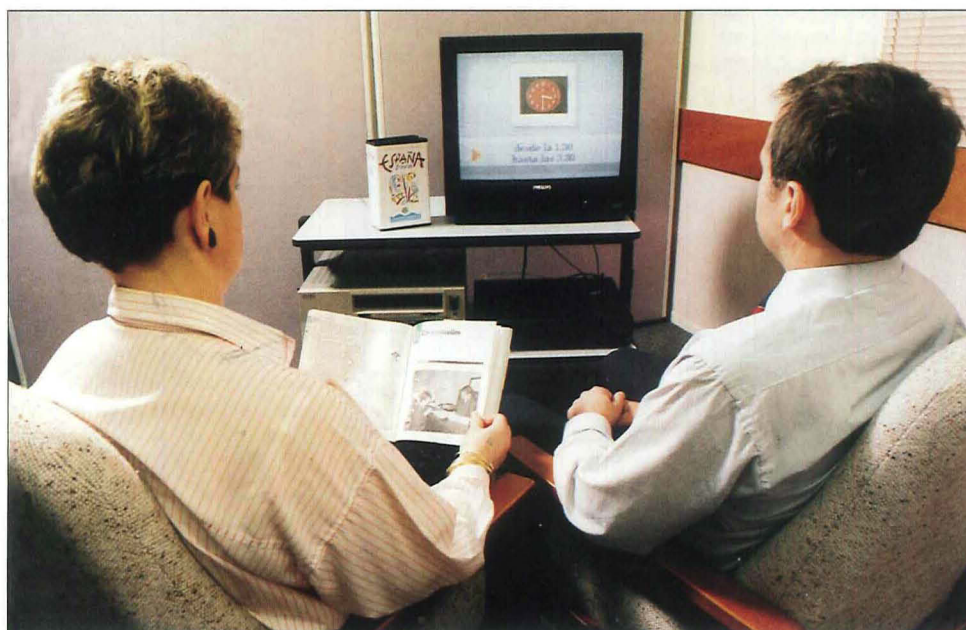


Two are ready for Spain

Maurice and Maureen Wooldridge have both worked for GEC for many years. When PDT was first launched last year they decided to take up the Company's offer, and learn something useful. As they both like to travel, and as Spain was on their list of "places to visit", they decided to learn Spanish.

They regularly attended the OL Centre to view the videos which accompany the course, and in that way paced themselves through the material. Maurice and Maureen found the course informative, easy

Maureen and Maurice hard at work with their Spanish.



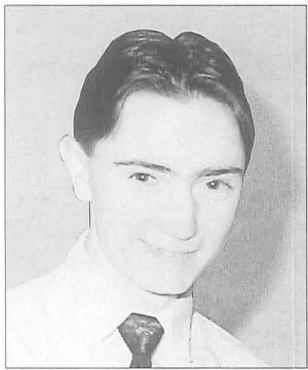
to follow, interesting, and extremely enjoyable. They have not only learnt how to communicate in Spanish, but now have a much broader understanding of the different regions of Spain and their cultures.

The Introduction to Spanish has inspired Maurice to continue his studies at evening classes, but he has also continued to use the PDT scheme and has finished a further course.

Maureen has also continued to learn, has completed one other course and will shortly commence another using this year's credits.

The Wooldridges believe the Company's PDT scheme to be first rate, and would encourage all those who haven't yet decided to study, to do so. They're off to Sitges, near Barcelona in June where they hope to use their new found knowledge - we wish you "¡buen viaje!"

Obituary



GAVIN McDONALD

At the age of only 22 Gavin McDonald has tragically died following heart surgery at the Royal National Heart Hospital, Brompton.

Everyone who knew Gavin marvelled at the courage he showed in overcoming the serious heart disease which he suffered from childhood.

Gavin joined the Company as a YTS trainee in 1986 and following his apprenticeship became a Production Technician in GSD in 1990.

Gavin lived life to the full in spite of severe disability and undergoing numerous operations. He was the deputy head boy at Robert Napier School in Gillingham where he was also awarded the Governors' Cup. He was the

national champion of the Association of Swimming Therapy every year from 1985 to 1987 and this Association now presents an annual Gavin McDonald award.

Gavin continued to swim for the Valiant Swimming Club in Strood after he left school and was a qualified instructor. He learnt to canoe, ice skate and drive at an early age and in spite of his own severe disabilities was always helpful towards others with problems.

Just a year ago Gavin accepted on behalf of the Company a Fit for Work award plaque from Countess Mountbatten at a Department of Employment ceremony, hosted by GAv.

Gavin was well known for his mischievous sense of humour and cheerful disposition and was popular with everyone he met. He made a lasting impression on all with whom he came into contact and will be sadly missed.

We extend our deepest sympathy to his mother Pauline who has supported Gavin unstintingly through his life in all his achievements, and who can deservedly be very proud of her son.

It was with deep regret that we heard of the death of **Frank Jones**, former Contracts Manager and founder team member of Maritime Aircraft Systems Division.

Frank's career with GEC started in 1957, following his retirement from the Army, as a Technical Liaison Clerk.

After various contractual and career moves in the Company he was appointed Contracts Manager of MASD in 1972. Frank's major contributions to the success of MASD and several major projects will not be forgotten. He retired in 1986.

From MASD.

Retirements

Derek Bateman has been Patents Officer since 1966, with the former Elliott Bros and here at Rochester. But at his retirement presentation he was unable to say just how many successful Patent applicants he has advised.

Heather Doran has retired after almost 38 years of service; starting on wiring she soon transferred to records work, and at the time of her marriage to Mike (one-time Chief Draughtsman in IND and ATED) in 1958, moved into Purchasing. More recently Heather was in Technical Publications, in MACD, FCD and CACD where she has been Word Processor Operator.

Jack Wilkinson, Senior Development Engineer, was in FARL/TSRL for most of his 30 years, but did spend two periods in IND.

Recently, Applied Physics Division at Borehamwood has seen the retirement of:-

Len Pitcher, after 6 years' service with the Division,

initially as a Security Warden for the Vacuum Physics Building and latterly as an Instrument Maker in the Model Shop.

W. Norman Sheppard, after 10 years' service as a Senior Quality Control Engineer, responsible for the Goods Inwards Inspection Group.

Ray Jones, after 32 years as a Principal Process Engineer. Ray was particularly skilled in the manufacture of glass and ceramic high voltage vacuum tubes used in the specialist applications of the Division.

John Huxstep, after 6 years' service as a Maintenance Fitter of the tube processing plant of the Division.

Ron Hancock, after 5 years' service as a Technical Assistant with the Health Physics group of the Neutron Tube programme.

We wish all of these people a long and happy retirement.

25 Years Service



Technical Director **Bob Wilkinson**, after starting in the former Airborne Computing Division at Borehamwood as Development Engineer, came to Rochester when the division transferred. By 1973 he had become Project Manager, and when ACD became MASD he remained there, being appointed Engineering Manager in 1975. 1978 brought promotion to Technical Manager and in 1981 Bob became Deputy DM, leading the MASD team as Divisional Manager from 1982.

In January 1985 Bob returned to Borehamwood as General Manager, then in April 1986 he was back at Rochester as Assistant General Manager responsible for MASD, Special Projects and Recording Systems. His latest promotion to his present post of Technical Director took place in October 1989.



Manager of CMS **Peter Burrows** was originally in the former MER Division, and with Gyro where he was Production Controller, then with Rank Cintel at Sydenham when they first joined Elliotts. Rejoining the company here as Chief Production Engineer of DADD (which became ADD and ATED), he became Production Manager of Automatic Test Equipment Division when it was formed in 1967. In 1978 Peter was appointed Production Manager of CMS, becoming Manager in 1985 of the newly titled Central Manufacturing Services.

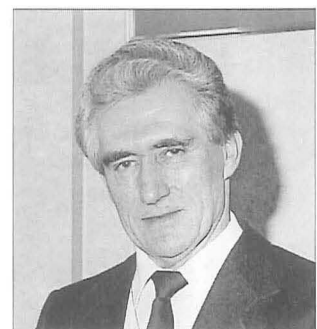


'**Hughie**' **McArthur** has been in Training Dept since 1976; prior to that he was a Wireman in Air Space Control and for 9 years in TAC/FCD as Inspector. During that time he became Shop Steward for the

ETU and served on the Works Committee.

In Training, Hughie has taught generations of apprentices and trainees at Hopewell Drive the skills of electronics and wiring, and notably has held since 1987 a Category 'C' Instructor/Examiner Certificate with the US Department of Defense. This has enabled him to conduct training courses for production workers to meet the exacting US standards. He has also been able to pass on to trainees at other sites the professional manner in which our training techniques are delivered.

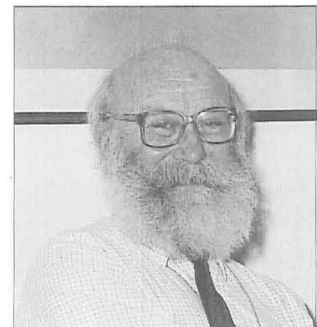
One of Hughie's sons, Gavin, is a 2nd year Electronic skilled apprentice, now in ADD.



Malcolm Tyler started his 25 years with GEC at Billericay in Essex as a Draughtsman, and after 2 years came to Rochester on transfer to MACD, later FCD. In 1971 he moved to IND, being promoted to Design Draughtsman in 1974. Since 1982 Malcolm has been in ISD, as Checker Draughtsman and then moving to Microsystems where he is now Senior Draughting Engineer.



Mike Austen spent the first part of his 25 years as Wireman in the early days of ATED and then ADD when those divisions were being formed. Later he moved into the RST and Test areas of ADD, and is now Test Technician in RST, and on the night shift.



Mike Harden has spent time both here at Rochester, and on site at places such as Boscombe Down in TSR2 days, at BAe Woodford and Rochester on the Nimrod programme, at the Yeovil office

and at Frimley. He is Consultant Engineer in MASD and is currently attached to FCD on the Phoenix programme at Larkhill, in an old Nissen hut in the middle of nowhere. Mike and his family are cycling enthusiasts, and he celebrated his 60th birthday by riding from Land's End to John O'Groats.



Freda Milton has been in the 'control' divisions for the whole of her service, firstly in TACD, then FCD where she became Leading Hand Wireperson, and for the last six years she has been in CACD on the PCB Assembly Section. Now she is one of the division's highly qualified Soldering Technicians, having completed Hughie McArthur's advanced course.



Martyn Nash, Calibration Engineer in CMS, began his service with FARL when they were at the Flying School, and then stayed with his work when reorganisation took place and CQD was formed. Martyn has spent much of his time on component evaluation and test, but for the last few years has been on Environmental Calibration in the RST Laboratory which a few months ago came under CMS.



Colin Snell, Senior Instructor, has been in AS&R/LCSD/ now PSD since 1970; prior to that year he spent nearly 4 years as Development Engineer with the Head Up Display team which had come from Sydenham.

As Instructor, Colin has presented courses to servicemen and civilians from throughout the world, and to people ranging from the demanding boffins at Boscombe Down to an African Air Force team composed of members from 7 potentially warring tribes. Specialising in earlier years on Jaguar and Tornado systems,

Colin has since become an expert on Thermal Imaging Systems, lecturing to groups at many places in this country and overseas.

* * *



Charlie Crawley



Peter Kirby



Pam Lester

At a Buffet Lunch ceremony in APD, Borehamwood, 25-year service presentations were made to **Charlie Crawley**, Test Engineer, to **Peter Kirby**, Senior Specifications Officer, and to **Pam Lester**, Technical Assistant.

Congratulations

On Saturday 2nd May, Mandy Payne, Secretary to GAv Publicity Department, was married to Simon Hall at Holy Trinity Church, Twydale Green.

GEC Avionics News

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A ROOF OVER THE ORPHANS' HEADS

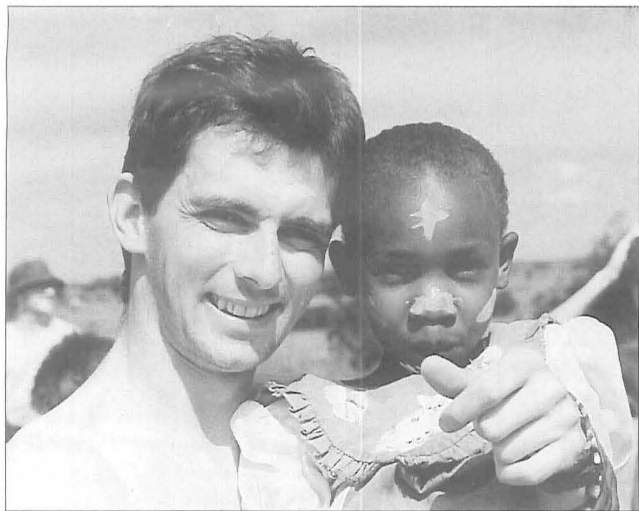
In our October issue you read how Lee Norris, a Software Engineer with MASD here at Rochester, was going on an expedition to Kenya along with 20 other young GEC employees from all over the country. The expedition, initiated by the GEC Management College at Dunchurch, is run as a personal development programme for young GEC employees and this year Lee has returned with their tale to tell.

The expedition team, after raising £28,000 funds in 10 months, finally arrived in Kenya on 26th January. Their plans changed to a project for 2 new buildings at an orphanage operated by the Kenyan Gold Medallist athlete Kip Keino and his wife Phyllis, which housed 57 orphans but was just running out of space. Most of the team members had no previous experience in building skills, so before leaving they had organised a training weekend with a specialist. Some, including Lee, also took an advanced medicine course especially designed for those travelling in remote areas of the world.

Just over 3 weeks was spent at the orphanage and in that time they successfully completed all of their plans and more. One of the buildings was completely roofed, and another building was left with electricity, hot and cold running water, glazed windows and a ceiling throughout. But time also had to be spent playing with the kids - of 7 months to 17 years! Some of their medical problems were sorted out by the team doctor and his 'professional colleagues'.

After leaving the orphanage, an occasion with mixed feelings, they took some time for rest and recuperation in the form of a 5 day camel trek into the Kenyan bush. Temperatures were extreme and food basic, water had to be purified and hazards such as wild buffalo and elephants had to be overcome.

Since returning home on 1st March the team has made a presentation to their sponsors and senior GEC Management. They explained their achievements, and showed how they can bring what they have learnt to their everyday lives and careers.



Lee and one of the 57.



The Marathon Finishers (l-r) Paul, Ken, Alan, Linda and Graeme.

GAv Stars in the London Marathon

The 12th London Marathon held on Sunday 12th April saw five employees from Rochester line up with 26,000 other runners to tackle the 26 mile course.

Happily, all crossed the finishing line although some suffered a few aches and pains! All praised the support of the massive crowds who lined the route through the capital to cheer the runners on, and some are planning to run the event again next year. The weather was ideal for the long run, which has become one of the best known sporting events.

Graeme Saker (PSD), normally a middle distance runner, was running in his first marathon and registered a time of 2hrs 39.26 finishing in 437th position. Graeme was running for the Kent

Adventure Club and hopes to raise £700 for his effort. (The winner clocked 2hrs 10 mins).

Ken Rains (CACD) was running for the Kent Ambulance and was hoping to raise £250. Ken was running his fifth marathon and finished in a time of 3hrs 13.10 coming 3690th.

Linda Shackleton (ISD) chose an unusual way to celebrate her birthday by attempting her first marathon! Linda, who was aiming to raise £200 for the Guy's Hospital Kids and Kidney Patients, finished in 9562nd position in a time of 3hrs 41.59.

Alan Hindlet (ADD) who was competing in his twelfth marathon was running again for the Guide Dogs for the Blind. Alan's time was 3hrs 52.30 and he finished in

11,838th position. Alan was hoping to raise over £200 for his charity.

Paul Davis (ADD) was taking part in his first marathon and finished in a time of 4hrs 49.19 and came 20,429th. Unfortunately Paul suffered from cramp 15 miles into the race but battled on to finish. Paul is hoping to raise £150 for his charity, Guy's Hospital in London.

Bob Kemlo (GSD) was due to run but unfortunately was forced to withdraw after falling ill on the eve of the race; Alan Hindlet took over Bob's sponsorship and Bob is hoping that the people who sponsored him will now sponsor Alan - if they do, the Medway Scanner Appeal will benefit by £300!

All the runners would like to take this opportunity to thank everyone for sponsoring them.

Friends of THOMAS The Tank Engine will be at this year's Sports Day courtesy of the Model Railway Club. The club will be running its "N" Gauge layout, "LIVE STEAM", "00" Gauge and "LGB". Bring something to run. Come and find us in the Ballroom. For more details of the above or for membership, contact Mark Snowden (4208) or Ralph Smyth (4296).

REAPER CLUB

"We report with sadness the death on 7th April of Cyril Boorman, our chairman until a few weeks ago, who had held that position for 12 years. Cyril, who was 86, had been unwell for some months and died in the Molly Wisdom Hospice. In his company service Cyril was for many years in CMS.

"Our sympathy goes to his wife Edith, with whom he was pictured in the previous GAv News as Pearly Queen with Cyril as King. Together, they had appeared at hundreds of fund-raising functions over the years".

GEC AVIONICS CLUB

At the Annual General Meeting held on 26th February, attended by some 70 members, 3 new committee members were elected (*) and the Management Committee now comprises:

Chairman: John Bradley
Director of Personnel

Vice Chairman: Keith Jones
c/o (elected by new committee)

Members:

* Rod Cole, CQD
Jim Collins (co-opted)
Hugh McArthur, Training Dept (Hopewell Drive)
Cyril Moffett, FCD Production
Ray Newman, PSD
* Tony Oxenham, GSD Production
Brian Rogers, Personnel (co-opted)
Roy Wade, Security
Dennis Killingbeck, BP
Terence Oxenham, BP
* D. Tudor, Fisher Controls

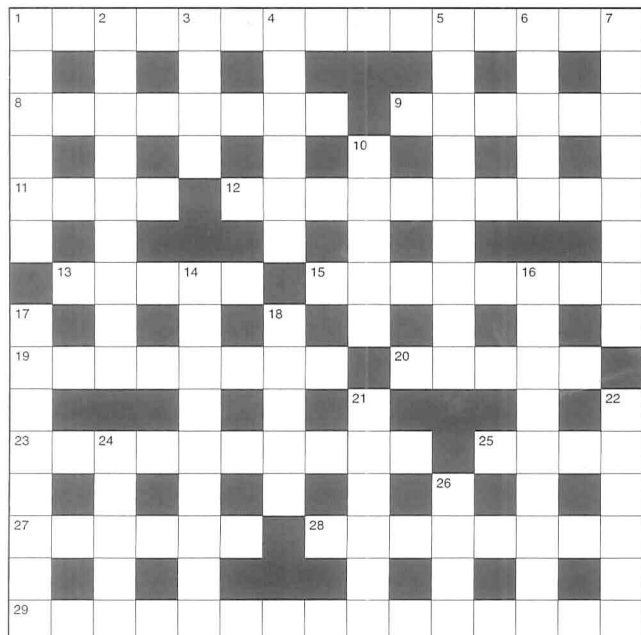
Appointed Members:

Treasurer: Mark Perry, GAv Accounts

Asst. Treasurer: Valerie Squires, GAv Accounts

Secretary: Peter Bird, Hoo Club House, Medway 251492 (Short Code 6009).

Crossword No. 108 (For amusement only)



ACROSS

1. Essential facts for businessmen - and women. (5-10)
8. Paler than bitter, we hear. (5-3)
9. The call when empty. (6)
11. A real pal. (4)
12. A flower that could be dangerous. (10)
13. Sixty minute periods. (5)
15. The document is fresh. (3-5)
19. Stylish smartness. (8)
20. You get it, if too close to a nettle. (5)
23. Words of wisdom, collectively by St. Matthew. (10)
25. Part of foot. (4)

27. Can you stop at a single without tonic? (3-3)
28. A five sided figure. (8)
29. Foolish as spring arrives. (3-2-1-5-4)

DOWN

1. Occupied space as measured in c.c. (6)
2. Many people try to walk on it. (9)
3. A great deal at auction. (4)
4. Some have five, ten or maybe one only. (6)
5. Chew an aromatic plant after a sharp instrument. (9)
6. It goes on the cake! (5)
7. Chip in your finger. (8)
10. They keep a watch, maybe treasonable. (5)
14. Truths. (9)

16. Sit here in the warm. (3-6)
17. We are told it sweeps clean. (3-5)
18. He's prepared. (5)
21. The very thin facing. (6)
22. A spiritualist's meeting. (6)
24. Alter in detail. (5)
26. An American State. (4)

Solution to CROSSWORD 107

ACROSS

1 and 10. Service with a Smile; 11. Extricate; 12. Retriever; 13. Doggo; 14. Tobago; 16. Carresses; 18. Exemplar; 20. Scrawl; 23. Oozes; 24. Nihilists; 26. Public Bar; 27. Prowl; 28. Beetle Browed.

DOWN

2. Edict; 3. Veering; 4. Cleave; 5. Water Can; 6. Twiddle; 7. Analgesia; 8. Esprit de Corps; 9. Remorselessly; 15. Beelzebub; 17. Hannibal; 19. Pastime; 21. Calypso; 22. Cherub; 25. Stowe.

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RON HOWARD

CBE BE FSASM CEng FRAeS

The retirement of Ron Howard closes a distinguished career with the company we now know as GEC Avionics but which was part of Elliott Bros when he came to us at Borehamwood in 1954. After graduating from Adelaide University with a Bachelor of Engineering (Electrical) degree, followed by a Fellowship Diploma from the South Australian School of Mines, he had joined the Australian Government Civil Service and was later seconded to this country to work on the development of the first UK guided missile. Deciding to live in England, he 'answered an advertisement' and started work as a Project Leader on autopilot and autostabiliser systems for the immensely successful English Electric Lightning fighter aircraft.

In the late 1950s he pioneered the dual-monitored concept of safe automatic landing used on the VC10 and Concorde, and from 1960 to 1965 held a series of appointments in Elliott Flight Automation from Assistant Chief Engineer to General Manager, establishing the design principles for the fly-by-wire systems which came to fruition in the Tornado.

Subsequently, he proposed the "dissimilar redundant" safety-critical system design concept used on the Airbus aircraft (A310, A300-600 and A320), and had management responsibility for its development into the fly-by-wire system now adopted by Boeing for the B777 and more recently specified by Tupolev for the Tu 204.

Export and Home Markets

Ron has been intimately involved with most of the European collaboration programmes in aerospace and was also responsible for a range of our export activities, particularly to the United States. These commenced with the first direct avionics sales to the USA on the Lockheed C-5A in 1965 and have continued since, especially with the acquisition in the early 1980s of the first of several major contract awards for the US Air Force and US Navy's Standard Central Air Data Computer programme.

Also in the USA, Ron was responsible for the acquisition for GEC of the Lear Astronics organisation in Santa Monica, California in 1987, the first of a series of companies pur-

chased by GEC in aerospace. Concurrent with this, he initiated the work with General Dynamics which has led to the award to GEC Avionics of the fly-by-wire system for the new F-22 stealth fighter. Current programmes for which he was responsible in the UK include the Army Phoenix Reconnaissance Drone system, and the Digital FBW system for the Experimental Aircraft Programme (EAP) which is now becoming the multi-national European Fighter Aircraft.

A range of diversification activities in GAv has been initiated by him, and in particular he created a business for the design and supply of remote subsea controls for offshore oil wells. These were based on spin-off technology from aircraft safe automatic controls, particularly Concorde. The equipment is widely employed in the North Sea and elsewhere, including the Gulf of Mexico.

Distinctions in Aerospace

In the Aerospace Industry as a whole, Ron has many distinctions. He was awarded the Bronze Medal of the

Royal Aeronautical Society in 1973 and their British Gold Medal for Aeronautics in 1986. He has also twice been winner of the RAeS Simms Prize. He has held high offices particularly as Chairman of the Aviation Division of the EEA and of the Technical Board of the SBAC, and as a Member of Court of Cranfield. But his greatest honours have been his election as President of the Society of British Aerospace Companies for 1989/90 and as their deputy President for Farnborough '90. And most particularly, his Royal Accolade when he was made a CBE in the 1991 New Year Honours.

Ron's wife Enid, a fellow graduate of Adelaide University, has been seen on many occasions here, including Sports Day prizegivings. Before long they will be going to live in Australia, but they hope to visit us at Rochester in due course, since they will be keeping a second home in Canterbury.

We wish them well.

Sports Day
FAMILY

5-A-Side Football
Childrens Races
Swimming
Tug of War
Athletics
Netball
Bowls

SUNDAY 12th JULY 1992

CLUB HOUSE-HOO

Brass Band Concert
Novelty Events

Bar
Refreshments
Side Shows

IF YOU WISH TO COMPETE, CONTACT YOUR DIVISIONAL / DEPARTMENTAL REPRESENTATIVE

Sorry No Dogs



Ron and Enid Howard at their farewell presentation which included the painting of Boxley Church.

Scanner Appeal

The Total has now passed

£80,000

Books in Good Condition are needed for future sale, including Boot Fairs.

Contact Harry Staff, Ex 3674, or leave your books at Stirling Reception.

VITAMIN SALES
COMPARE THESE PRICES!

Did you know that vitamins are on sale in the Company Surgeries at greatly discounted prices?

For example:-

Multivitamins	£1.40 for 60
Multivitamins with Iron	£1.40 for 60
Cod Liver Oil	£1.10 for 60
Halibut Liver Oil	£1.20 for 120
Evening Primrose Oil 500mg	£2.85 for 40
Vitamin E 200 iu	£1.70 for 60
Odourless Garlic 2mg	£2.00 for 60
Vitamin B6 50mg	£1.50 for 60
Royal Jelly 150mg	£3.30 for 40

Should you be interested in these or any other vitamins, please contact Main Surgery (Ex.3675) for further information.

