



£7m Flight Controls Order for the US Navy F-14



The F-14 Tomcat and its SCADC unit.

GEC Avionics has been awarded a contract worth over £7m by the US Navy to provide a replacement flight control system for their F-14 "Tomcat" aircraft.

The Digital Flight Control System (DFCS) to be supplied by CACD will provide a "form fit-function" replacement for the existing system - this means that the boxes will be identical in size and shape, will not require any modifications to the aircraft wiring and will initially emulate the existing analogue system. Software upgrades will then allow both the correction of current deficiencies and further enhancement of the handling characteristics of the aircraft. This approach drastically reduces the cost to

the Navy of fitting a replacement system into their aircraft.

The F-14 Tomcat, made famous in the film *Topgun*, is manufactured by Grumman Aircraft Corporation in New York. The aircraft operates from land bases and aircraft carriers to provide air cover for both carrier and fleet, and other aircraft. It is two seat, twin engine and has a swing wing system similar to the Tornado. The US Navy operates a total of nearly 500 F-14s and has previously selected GAV's SCADC air data computer for retro-fit to all the aircraft.

The system to be supplied will comprise three micro-processor based computers - one controlling each axis of aircraft movement, pitch, roll and yaw - and an Engineering Test Station (ETS). The ETS will allow the ground testing of the computers and also provide a means of linking the computers to the US Navy F-14 flight simulator and integration rig. Using the simulator with the digital flight control computers connected, a pilot can "fly" the aircraft without leaving the ground.

This initial contract will allow the US Navy to test and evaluate the GAV system. After extensive ground testing, which will be carried out by GAV and the US Navy, first flight will be in 1994.

This contract, in addition to other contracts on EFA, 777, F-22, T-45, Airship, Tornado and Airbus reinforces GAV's position as a world leader in the supply of flight control systems for both civil and military aircraft.

SCADC LIVES ON AND ON ...

The order for the next batch of the highly successful Standard Central Air Data Computers for the US Air Force and US Navy has been received by ISD. The order, 8th in a series of options, is for 290 SCADC, together with quantities of Mounting Trays and supporting data.

This latest order brings the total procured to a massive 5552 units; deliveries are now in progress for the previous 7th option order.

In addition to CACD's contract to provide a DFCS for the Tomcat, the SCADC Air Data System is also being supplied for this aircraft, for which a total of 387 units have been allocated.

Message from Brian Tucker, Managing Director, Christmas 1992

Without doubt, the past twelve months have been among the most difficult and painful in the history of our company.

Dramatic changes in defence needs world-wide, coupled with deep economic recession both at home and in most of the nations we trade with, have caused many customers to revise their priorities and requirements. This has led to a large reduction in our activity.

It has been critically important for us to examine closely what these changes imply, to anticipate future market opportunities and to change, so as to prepare to meet new and difficult market challenges.

This strategy for change is a painful process and cannot be implemented without reductions in our workforce. The harsh reality, that sustained decline in orders unavoidably reduces employment, is particularly saddening for many like me who have been here for over twenty years, or who have even longer service.

But the realities must be faced for the company to have a healthy future and we must change our organisation accordingly. We were pioneers of the Divisional system, and this gave us the breadth of products and responsiveness to customers which kept us ahead of our competitors for many years. In a more buoyant and growing economy. Now, however, we foresee a greater need to apply our 'systems' capabilities from across Divisional boundaries, combining and focusing our resources, in order to create new markets for those products.

Our skills are many and diverse and we have earned a good reputation for innovation, which should equip us well for the challenges to come. To these we must add the efficiency and commitment of each and every individual, as these are essential ingredients to our future success.

To achieve this, it is a company aim for everyone to have attended a session on Total Quality Management this year and next. This is intended to encourage all of us to look critically at our effectiveness and to look constantly for ways of improving efficiency.

We remain an internationally-recognised company with a proud record of achievement in high technology business. For all that 1992 has been harsh, it has seen some impressive achievements. We have gained a number of important research contracts in the UK as the MoD begins to look at helmet mounted displays (HMD) and our helmets continue to be evaluated in Germany and the USA.

We are approaching delivery of our 5,000th SCADC and our 10,000th HUD, both remarkable achievements in the high technology/low quantity markets in which we operate. We have won the major production order for the acoustic processor for the Royal Navy Merlin anti-submarine warfare helicopter; we have received many follow-on production orders for the Cats Eyes Night Vision Goggles for the United States. The first 777 FBW computers have been used on the rigs at Boeing in Seattle, and our many EFA equipments are ready for the first flight of the aircraft and we confidently look forward to the next phases of production.

1992 has seen our teaming with Bell Helicopter Textron to bid for the British Army Attack Helicopter programme - decision due in 1994 and certainly the largest single procurement by the British Army this decade. We have also teamed with Honeywell and Westinghouse on their Enhanced Vision Programme for civil HUD, maps and radars for the civil aircraft of the future.

I would like to thank you for playing your part in these achievements and others like them. I would also like to thank all of you for your perseverance and understanding throughout 1992.

Our goal is the long term prosperity of the company and no-one could claim that all the difficult times are over. I certainly will not do so. I am, however, confident that 1993 will see us realising the strength of our organisation which, with your continued help, will enable us to maintain and improve our position in world markets.

My best wishes to you and your family for the coming holiday season.

CQD evaluates new MoT equipment

As part of the UK effort to reduce air pollution the annual check of petrol-driven vehicles now includes exhaust emission analysis. A new feature which may be causing a number of us problems with our MoT!

The levels of carbon monoxide and hydrocarbons are measured, and in 1993 carbon dioxide will also be monitored. Diesel engine vehicles have not been forgotten; since 1st September 1992 heavy vehicles have been checked and cars and light vehicles will be included from 1st January 1993.

Any manufacturer wishing to market an exhaust analyser must first have it approved by the Department of Testing Vehicle Inspectorate. This requires it to have passed a number of stringent checks involving climatic and radio interference testing. The Central Quality Department at the Flying School has become one of the very few laboratories accredited by NAMAS (The National Measurement Accreditation Service) to carry out this approval testing on Exhaust Gas Analysers and Diesel Smoke Meters.



The picture shows Martin White of CQD working with an Analyser in one of our new test chambers. It was taken by Brian Bell for the Central Office of Information, who used it in a series of articles that were sent around the world by the COI to illustrate facilities in Britain for improving the environment.



MAJOR ORDER FOR THE USAF KC-135 TANKER FLEET



GEC Avionics and our associate company Lear Astronics Corporation have been awarded a contract to develop a new fuel monitoring system for the KC-135 tanker for the United States Air Forces. The contract will involve the possible conversion of over 400 aircraft and has a potential value in excess of \$60m.

This critical single system upgrade involves the installation of a Fuel Savings and Advisory System (FSAS).

The new equipment is made up of two items; a Fuel Management and Advisory Computer (FMAC) to be developed by Lear in California; and an Integrated Fuel Management Panel (IFMP) which will be developed at Rochester.

The IFMP will give the aircrew information on the contents of the fuel tanks and their centre of gravity. This allows the pumps and valves

which manage the fuel to be controlled at all times including during critical periods such as air to air refuelling.

Together, Lear Astronics and GEC Avionics are now major suppliers to the growing market for fuel and engine health monitoring systems.

GAv at 'TEST 92'

For two October days in Brighton, PSD flew the Company flag at 'Test '92' - an annual exhibition organised by the producers of 'Test' magazine. Nearly 50 electronic test specialists, including such well known names as Marconi Instruments, Racal and GenRad, displayed their products and services.

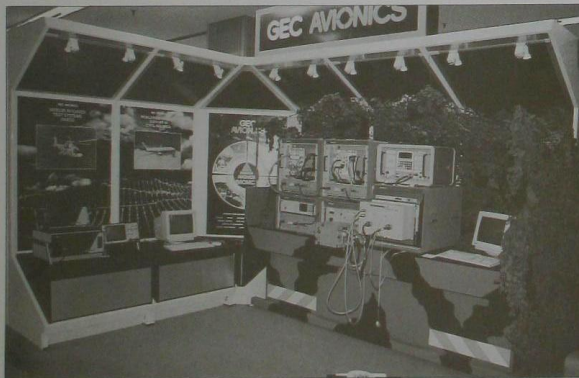
Although no prize was on offer, it seemed generally acknowledged that the PSD display was the best on show - not that we're

biased! David Joel, Dez Cass and Dean Smith manned the stand and operated the Automatic Test Equipment produced by PSD, including the new Downsized Tester and the ORION 9000 Databus Analyser.

A great deal of interest was shown by the three principal MoD Services, particularly officers directly concerned with the future testing requirements for aircraft such as the Tornado Mid Life Update, the

European Fighter Aircraft, the Merlin ASW helicopter for the Royal Navy, and the British Army future Attack Helicopter - for which the platform is still to be selected. GEC Avionics is bidding with Bell Helicopter Textron on this, offering the 'Cobra Venom'.

The camouflage netting helped to create an authentic front-line atmosphere on the exhibition stand.



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Our Quality Mission Statement

"To achieve profitable growth through satisfying our world-wide customer requirements for high technology products and services".

The next step in TQM

In these hard times it is hardly necessary to restate our need to ensure that our competitive position in the world market-place is secured by satisfying the requirements of both current and potential customers at the lowest possible cost. As a result our priority must be to be as effective and efficient as possible. The elimination of any unnecessary activity must therefore be our first target and commitment to this must come from everyone to ensure our success.

Over the past two months our "Total Quality Management" (TQM) initiative has made a significant step forward with the introduction of a training module entitled 'Targeting Yourself for Performance'. This is aimed at improving our general awareness of the TQM ambition to create an environment in which, through everyone's understanding and involvement, we continually improve our effectiveness. Across the Company this improved performance can only be achieved through the combined efforts of every individual. This message is at the core of TQM and of the new module.

'Targeting Yourself for Performance' has been introduced initially to PSD. By the time this edition of GAv News is published, everyone within the division will have participated in one of the 3-hour sessions held in the division. Over the coming months everyone in the Company will attend one of these presentations to help us all understand how important our role will be in the success of the company in what will be an extremely challenging future marketplace.

MASD's Acoustic Simulator is Ordered by US Navy

Last January, at the request of Boeing Aerospace, the GEC Avionics Anti-Submarine Warfare (ASW) Crew Trainer was used successfully to demonstrate the Update IV system to US Government, US Naval and NATO service personnel.

As a direct result GEC Avionics was awarded a contract by the Boeing Defense and Space Group, Seattle, to supply an Acoustic Simulation System (ASS) to support the USN P-3 Update IV programme. The ASS will simulate the output of passive and active sonobuoys and enable the prime acoustic processor to be tested and evaluated.

The ASS is derived from MASD's Airborne Crew Trainer (ACT) 2. ACT 2 provides realistic and comprehensive airborne and ground training for Maritime Patrol Aircraft and ASW Helicopter crews, without the need to deploy sonobuoys or co-operate with a target submarine.

The ASS was originally ordered to integrate the acoustic and mission systems in the P-3 Orion Update IV Aircraft and to provide full training in detecting, identifying and localising surface and subsurface targets, by simulating passive narrowband and broadband acoustic signatures and

active reflective characteristics.

Despite the recent cancellation of the programme, Boeing still accepted delivery of the equipment. It is anticipated that it will be handed to the US Navy for future use at the Naval Air Warfare Center, Patuxent River, Maryland.

The equipment accurately simulates all types of current NATO sonobuoys, realistic ocean

environmental conditions and multiple targets. ASW scenarios may be pre-programmed into the system or controlled by the instructor in real time during the training exercise. The equipment is compatible with all types of acoustic processor.

The ASW Crew Trainer which forms the heart of the Acoustic Simulation System delivered to Boeing's Defense and Space Group.



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Triumph for UK Crew

GEC Avionics Acoustics Help the RAF Win Again

The Fincastle Trophy is the world's most prestigious international Anti-Submarine Warfare competition. It has been fiercely contested by Maritime Patrol Aircraft crews from Canada, Australia, New Zealand and the United Kingdom since the competition was first held in 1960.

This year the 'Fincastle' took place at RAF Kinloss, Morayshire, during the first two weeks of October. The four crews flew both day and night sorties to detect, classify, localise and execute simulated torpedo attacks against a Royal Navy nuclear submarine. The competition was eventually won by the RAF Nimrod crew; it was extremely rewarding for MASD, suppliers of the AQS 901 acoustic processor to both the UK and Australian Air Forces, to see such a win in this tough competition. Since the AQS 901 entered front line service in 1980 a UK Nimrod crew has won the competition five times.

The Trophy was presented by Mr and Mrs Aird Whyte in memory of their



The RAF Crew with their Trophy.

son, Sgt Nairn Fincastle Aird Whyte, who was killed in action in 1943 whilst serving as an Air Gunner in RAF Coastal Command.

Flt Lt John Grime, Captain of Crew 5, 206 Squadron, the winning Nimrod MR2 Mk2 crew, was delighted to receive the 1992 Trophy on behalf of his team, with the Australian team a close second.

Some of this year's events were sponsored by various companies who have interests in the maritime aircraft world. Five GEC-Marconi companies,

led by GEC Avionics, joined forces with British Aerospace and Thorn-EMI to sponsor the Opening ceremony, the 'Ryder' Cup (Fincastle golf competition) and the Farewell function.

During the competition sponsors demonstrated their systems and simulators, showing the vast technological advances that have been made in maritime patrol aircraft equipment. The opportunity was also taken to show systems under development which use the latest techniques to aid and enhance operator performance.

This was the first year that industry was invited to participate at such a high level in a Fincastle competition. We were able to discuss with front line squadron aircrew and senior members of the participating Air Forces the current and future role of Maritime Patrol Aircraft, and the use of advanced techniques including the newest display methods.

It was also marked by the kind invitation from the Station Commander to visit RAF Kinloss more frequently and continue the close ties established at Fincastle '92.

New Avionics Lab opens at Cranfield

A former head of department and alumnus of the Cranfield Institute of Technology, John Shepherd, has been commemorated in a new avionics lab at Cranfield campus.

Fittingly, the laboratory was opened by another alumnus, GAv Chairman Peter Hearne, on 20 November. The opening was attended by John Shepherd's family and his widow Audrey presented a plaque in his name to Professor David Allerton who holds the GEC Chair in Avionics at Cranfield.

John Shepherd, who died last year, graduated from the Institute and joined GEC Avionics for the first time in 1961. Subsequently, he returned to the College of Aeronautics as Head of the Department of Electronic System Design, before leaving again for GEC-Marconi where he became the company's Research Director. Amongst his developments, at Rochester, his work on digital head-up displays helped to make the UK a leader in the field.

Speaking at the opening, Mrs Shepherd said: "The

spirit of Cranfield, of working together and of striving for something new really was in accord with John's philosophy. I could not have chosen a better tribute to him than to name this new laboratory in his memory."

The John Shepherd Systems Laboratory supports avionics, electronics and mechatronics with 12 networked design cells each having test equipment, micro-processor systems, integrated circuit design, signal processing, software engineering, and control system design facilities. The lab is housed in a hangar at the airfield, and was funded by a £410K DES grant awarded to Prof. Allerton.

The Commemorative Plaque.



'START' Gyro wins Engineering Oscar

The 'START' Solid State Gyroscope, described a couple of issues ago after it received a Special Commendation in The Prince of Wales Award, has been awarded first place in its class in The Archimedes Awards 1992.

These awards, for Innovation in Engineering Design, are now in their eleventh year. They are rated as Oscars of British engineering design, bringing recognition and publicity to companies and their products; past winners have included large names such as Rolls-Royce, and small consulting teams. Entries are judged on creativity and marketability, and the category for START is 'New or Redesigned Product'. Sponsored by Autodesk Ltd., the class is judged by the readership of the technical magazine *Eureka* by postal ballot, from the three finalists chosen by a panel of distinguished engineers.

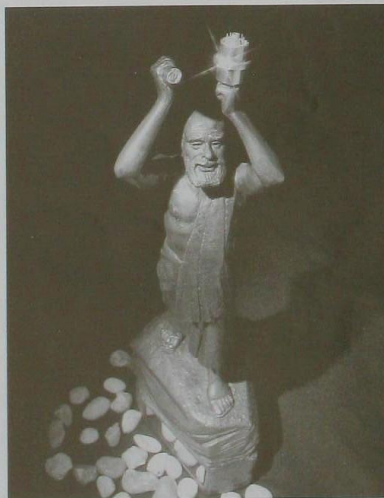
'We've cracked it!'

Remember Archimedes? This ancient Greek mathematician is said to have taken a

bath and discovered the principle concerned with equal displacement by weight of a body in water. On realising his discovery, he rose excitedly from the bath

with a triumphant cry of 'Eureka' - 'I have it!' Today's version is 'We've cracked it!'

The Archimedes Trophy, bolding aloft a START Gyro.



Peter Hearne (l) with CIT Vice-Chancellor Prof Frank Hartley, Audrey Shephard and family.

New Future Systems Research

A consortium led by GEC Avionics has been awarded an ESPRIT (European Specially Promoted Research in Information Technology) contract to carry out research into computer/human interaction (CHI) on the civil aircraft flight deck and in air traffic control.

The research, which follows a Science and Engineering Research Council (SERC) award to Dundee University, aims to develop an interface between the pilot or air traffic controller and his computer systems, tolerant of error and reducing the possibility of mistakes in high-stress conditions. The result of the project, named ARCHIE (A Reliable CHI Environment), will be applicable wherever people use computer systems in high workload, safety-critical conditions. The research programme is expected to be completed by early 1996.

ARCHIE is funded by the Commission of European Communities under the ESPRIT Open Microsystems Initiative which aims to coordinate the development and production of semiconductors and their associated software across Europe with the involvement of System users.

Partners in the ARCHIE consortium additional to GEC Avionics and Dundee are Bertin of France and Computer Resources International of Denmark. The Civil Aviation Authority and its French equivalent CENA are Associate Contractors.

Party and Panto Time



Father Christmas in his Grotto again.



I chose my jelly to match my shirt!



Magic! Look at our bats.



Have a lolly!



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Simple Simon, Miss Muffett, and the Dame in full song.



'PANTOLAND'

Written and produced by Eileen Wade

Very Good (Fairy) - Jane Hales

Dame Trott - Ray Newman

Jill - Suzanne Marshall

Jack - Linda Potter

Captain Hook - Liz Hunt

Goldilocks - Sarah Jeffryes

Miss Muffett - Tracey Ward

Simple Simon - Susan Parr

Red Riding Hood - Fiona Newman

Croc - Mark Newman

Witch Grizzel - Eileen Wade

Father Christmas - Keith Jones

Front Man - Rod Cole

At the Piano - Bert Robbins

Electrician/Pyrotechnics - Paul Barrett

Behind the Scenes - Chief Gofer

Elaine Beard and Peter Bird.



Uncle Rod Cole and a budding pop star.

Wicked! ... but the Witch helped with the tea as well...



... and so did Dame Trott.

Retirements



Ron Bristow

Ron, retiring at the end of the year, recalls the small team comprising the Company's original aviation business.

Having had a previous spell in the Company's Research Laboratories at Borehamwood and an interlude with STC on airborne VHF equipment, Ron rejoined the new Aviation Division as a development engineer with the task of introducing semi-conductors to aircraft electronics, thus continuing early interests in electronics and aviation which included flying with the Southampton University Air Squadron and RAFVR. Soon after, the "Redchecks" guided bomb project gave experience in inertial navigation techniques and, with the receipt of the contract for the Blue Steel missile and aircraft navigation system and the formation of IND, Ron was appointed Chief Development Engineer. Further expected growth led to new Divisions being formed and Ron was appointed Divisional Manager to set up Precision Test Equipment Division, in the business of electronic, barometric and other equipment. This done, Ron moved the Division to Rochester and, to deal with an anticipated business lull, took responsibility for ATED and ADD when these were successively

merged to form Data Analysis and Display Division. Both the Display and ATE activities were successful in winning new contracts; these Divisions were re-formed and Ron was appointed Divisional Manager of ATED, introducing computer-controlled systems, leading the Division to win the Nimrod and F-111K contracts for the RAF, and to tackle the very large and successful A-7 support equipment for the USA. During this time, the "Compact" third-generation ATE was developed for military and commercial applications; versions were used on Clansman and Sea Dart projects for Marconi, others for GEC Sensors and GEC Avionics' own Divisions. After this, Ron led our entry to the multi-national Tornado ATE contract, retaining responsibility for ATED when appointed Assistant General Manager in 1972. This was followed by a period of corporate activity initially involving much work in the USA, and then with responsibility for overseas business development. Ron set up our framework of Company offices and other local arrangements for advancing the Company's and the Divisions' overseas aims, and has continued to direct these through many changes.

Another of Ron's interests has been in early scientific instruments and their makers. In recent years, he has been sorting and indexing the old records and instruments which remain from Elliott's as an early instrument-making Company, dealing with outside and internal enquiries about them and arranging exhibitions for particular events.

We wish Ron a long and happy retirement.

Across The Atlantic to a Photo-finish Climax

News of Kate Twyman's epic voyage around the world in the British Steel Challenge race.

Kate left Southampton as one of the crew on the *Pride of Teeside*, in September. The arrival at the first stage destination, Rio de Janeiro at the end of October, was probably the most thrilling possible. After 5,300 miles, just 100 metres and 80 seconds separated *Pride of Teeside* from two other yachts. All suffered nerve-racking

changes of wind and calm on the approach but *Teeside* crossed the finish first of the three, giving her fourth place overall.

The second stage of the race, round Cape Horn and across the Southern Ocean to Hobart, Tasmania, will be a severe test of the stamina and seamanship of Kate and her crewmates.

Our congratulations were sent to the captain and crew by Brian Tucker.

BOB EVES

Peter Hearne recalls the eventful career of our 'rough diamond'.

Bob Eves first came to my attention when he asked me in 1972 if I would appoint him as Project Manager for the A-4 HUD/WAC Update programme. His existing experience and background then seemed a little thin, so I suggested he take the management course at the Medway College and I would reconsider his request. Some months later he came back and said "Well I've passed the exams". "Good" I said "Where did you come?", "Oh only about third" said Bob.

After that there was no looking back. Four or five years later he asked again, this time to be Programme Manager on the F-16, then our biggest as well as our most prestigious programme. I was a little concerned that Bob's

"bedside manner" might not quite match the Texan sense of proprieties. I told him that it wasn't enough to be effective and a manager but he had to make the customer "love him". I needn't have worried. Three years later our customer General Dynamics considered Bob to be the most important person in England if not in Europe, and even chided me gently for not having shown them Gravesend which they knew from Bob's accounts to be a City of Light with most beautiful architecture and outstanding citizens.

GD's faith and ours was amply justified in 1983/84 by the highly successful 15 month development programme for the F-16 C/D HUD, something on which both companies were critically dependent and which was one of the most successful of Bob's many successful projects.

Bob used to have a joke newspaper on his office wall with the headline "Bob Eves dines with the Queen". The sequel to the F-16 success stories was another Queen's Award and an invitation to send a small team to a reception given by Her Majesty at Buckingham Palace. I took the invitation down to his office and asked him if he still had the paper. When he saw why I had asked, his face expressed every known emotion. For once in his life he was over-joyed - for at least 30 seconds!

He was then drafted away from us, too late I fear, to help do the same thing for the Nimrod AEW. When he returned promotion followed and he ultimately became an Assistant General Manager who specialised in supervising and directing the project management of major programmes. His last, the service acceptance trials of the Phoenix system on which he had worked so energetically and effectively, was within one or two weeks of completion when he died.

Many who met Bob, at first acquaintance considered him to be something of a rough diamond, effective and hard driving but tough through and through. Those who knew him for any length of time

realised that a large amount of his success in motivating and leading projects to completion lay in his sympathetic understanding of the characters of the different team members and their strengths and weaknesses. His ability to pull these together in a smooth functioning whole, together with his ability to recognise the critical road blocks and engineer a path around or through them, showed that he had one of the keenest minds in the business.



Bob was the quintessential Englishman whose basic qualities of shrewd common sense, determination and patriotism echo those of the earlier Englishmen of whom we read in Shakespeare's time.

A superbly competent manager who made things happen rather than let them happen, his contribution to our company was immense.

He was a true friend on whom one could always rely absolutely. Our hearts go out to Carol and his family.

TOM CROOKS

Memories from his friend and colleague of 40 years, Nigel Price, from whose album comes this picture of Tom taken around 30 years ago.



We were all saddened to hear of the death some weeks ago of Tom Crooks. During his 37 years with the company, Tom had become well known to a great many people. Tom was a great character and a very generous man, who was particularly keen on charity work and acted many times as compere at functions for the young and old alike. He was well known as 'Uncle Tom' at the company's Children's Christmas Parties and the Annual Party and Pantomime for mentally handicapped children.

His considerable and often biting talent as a cartoonist and his keen sense of humour will be remembered by all of us but particularly by the many subjects of his cartoons!

Tom was a great lover of all social and sports activities, spent 18 years on the Sports and Social Club Management Committee and certainly made the company sports day with his sharp and witty commentaries.

Tom joined Elliotts following an apprenticeship at the Chatham Dockyard as a Draughtsman. He joined Radio and Radar Division and later moved to IND where he was promoted to Chief Draughtsman and served on the Chief Draughtsmen's Committee.

In 1979 he was appointed Company Purchasing Coordinator and most recently was employed as Import Export Manager, with responsibilities for the company's vast range of patents and offsets.

Tom's constant good humour and sharp wit will be missed across the site and all our sympathies go out to Tom's wife Mary and their family.

JOHN FRANKLIN

John, Deputy Chief Accountant with over 20 years of service at Rochester, died on 15 November after a long illness. We will have a tribute to him in our next issue.

Spitfire on show



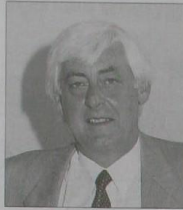
The Mk XI Photo-reconnaissance Spitfire, now completely restored by the Medway Aircraft Preservation Society Ltd (RAeS affiliated), was taxied down to the concrete apron near the Portakabins so that employees could look her over. Around 300 people took advantage during their lunch time. As we went to press, news of the test flying programme was still awaited.

25 Years Service

The Intake of Autumn 1967!

Jim Douglass, Senior Design Engineer, CACD - previously with MACD. Jim is an expert in printed circuit board design.

Richard Watters, Technical Executive, CACD. Richard was a student apprentice and has worked on flight controls for the Tornado and now for the EFA....



Bob Fisher, lately Logistics Manager, CACD, has just moved back to Munich as Site Manager for EFA. Bob was first there in 1974 for Tornado flight trials and spent 15 years on that project.



'Bernie' Milgate, Production Engineer, CMS, was in the Machine Shop for 17 years, much of them on night shift and for eight years as Leading Hand; Bernie then moved into Planning and later Production.

Steward for APEX. She is now a Committee Member and Steward for the MSF, with a particular interest in health and safety at work.



Julian Deakin, Project Leader, PSD, has been in Automatic Test Equipment design since joining as a graduate, and has worked on most of the division's major projects.

Joe Prickett, Senior Design Engineer, has spent two separate periods of work here, firstly in the former Air-space Control Division and 25 years in TACD and FCD drawing and design offices.

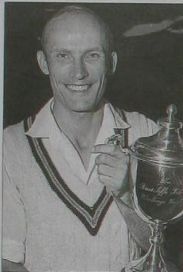


Joe has spent some time overseas on various trials programmes. This courtesy transport was provided for him while he was working in India at the Aeronautical Development Establishment, Bangalore.



Ron Wells, Superintendent in CMS, started as a craft apprentice and then worked in ADD's Model Shop for over 20 years.

Norman Bennett, CACD, spent ten years with the Concorde project before moving to other design work. For some six years he was on PDS supporting our equipment on RAF aircraft; Norman is now a Project Leader.



Richard has been a keen cricketer and hockey player. In 1979 he captained a team which won a Kent League trophy.



David Melbourn, now Production Technician in CACD, has spent most of his 25 years as night shift wireman in TACD/FCD. He has also spent some periods in the USA on training.



Dave Nicholls, Project Manager, PSD, joined as Section Leader and was later promoted to Project Manager responsible for PDS and support activities. For some years he was Engineering Services Manager, then returned to project work and is now in charge of development and supply of test packages for a major Army contract.

Mike Tomkins, Engineering Support Manager, Computing Services, joined FARR (TSRL) before moving to IND where he became Engineering Manager responsible for software development and future computing techniques, also for the division's computers. Since 1989 Mike has been in CS, looking after the support and maintenance of our corporate computer network, acting as adviser and coordinator on computer security and representing the company on several committees in that field.

Alan Secrett, Despatch Supervisor, PSD, has been involved with 'parcels for customers' throughout his time in AS&RD/LCSD/PSD Stores, Packing and Despatch areas.

Lance Willson, Test Technician, first started in AEID testing fuel systems, and since has been in TACD/FCD, ADD and GSD each for 3 years, back to FCD and now in CACD, working on many different equipments.



John Sampson, Chief Production Engineer, CMS, was a technician apprentice and has been in CMS as Inspector, Leading Hand, Foreman, Planning Engineer and Programmer, before moving to Production Engineering.

Mick Williams, Quality Controller, PSD, an expert on air data equipment since his early days in AS&RD, became a Quality Technician in 1972, a Leading Hand in 1981 and was appointed to his present post 5 years ago. Most of his time has been on night shift.

John Meers of Training Department was a 'learner' when he started in the Wiring School, and then went to FID and IND. Since becoming a 'trainer' in 1972 he has taught his skills to some 1600 trainees, some of whom are now in senior positions. However, he is still 'learning', keeping up with changes in technology and the requirements of different training authorities.



Geoff Davis, Principal Engineer, CACD, has worked on equipment and project control for some important programmes for aircraft such as Lynx, Tornado, ATF and EFA; he is now leading the Falconet FCS team.



Arthur West, Production Technician Leading Hand in GDD, works as a repair wireman in Gyro Test. He has been a specialist in these precision units in MACD, Gyro, IND, GSD and now GDD.



Alex Wallace, Project Leader, GDD, first worked for the company over 30 years ago but then spent a period 'on contract', during which he was at Sydenham in the early days of what later became ADD. Since that time he has led many projects in the Mechanical Design Group.



Barry Smith, Contracts Manager, CACD worked first in the Accounts Department. After a spell at Dartford and with ATED he joined his present division as Cost and Budget Officer, later Cost Controller. After a further time in Contracts, he became their much-travelled Contracts Manager in 1988.

Alan Edwards, Project Leader, PSD, has until recently been a design and Development Engineer on automatic test equipment, but has just moved to Logistics for the Cobra Venom proposal.

Way back in 1968, Barry and his wife Angela went to the Accounts Dept Annual Dinner.



A bearded John Meers is seen here teaching the 1977 Apprentice intake 'How to Lace Cable'. Can anyone identify the lad in front of him?



Pauline Turner, currently Project Admin Officer in FCD, previously in Contracts and in IND. Pauline was for many years a Senior Shop



Brian Wade, Chief Draughtsman in IND/GSD since 1979, has been a member of the Drawing Office for all of his 25 years.



THE HISTORIC DOCKYARD

Chatham, Kent

80 ACRES OF HISTORY ON YOUR DOORSTEP



The most complete Georgian Dockyard in the world is offering a 20% discount for GAv employees and their families during January.

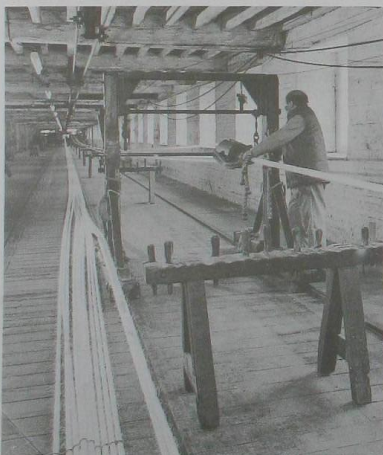
Step back hundreds of years into this living museum and see

- The award-winning "Wooden Walls" experience, recreating the sights, sounds and smells of Chatham and its Dockyard in 1758.
- The 18th Century Ropery, with its machines dating from the earliest years of mechanical ropemaking.
- The 1720s Sail and Colour Loft, which made flags and sails for HMS Victory.
- No.3 Dry Dock and the restoration of the Victorian sloop "Gannet".
- Restored naval guns from the 16th Century.
- Craftsmen at work using the traditional methods.

Plenty to see and enjoy even in poor weather. Refreshments are available in the Rigging House.

20% Discount on admission prices is available when you present the cut-out voucher -

See Back Page.



The quarter-mile long Ropery.

Anchor Wharf and the Commissioner's House from Thunderbolt Pier.

LAST MINUTE STOCKING FILLER

Ask Harry Staff for one of his Ladies' Personal Alarms - £8.

Professor Brain-Drain's Computer Corner



Dear Prof. What is E-Mail? Everyone I talk to seems to have a different idea on what it means. More important - does it mean the end of the Divisional Postie?

Postman Pat's Cat.

This is like "What is a Hoover?" That's the name of a company but has come to mean just a vacuum cleaner. Lots of people think that E-mail means all types of electronic mail, but it should only be used for a particular type of computer mail.

Most people can be reached by telephone but you can't send them a long list of items or a diagram. Telex can be useful but needs typing in, won't send diagrams, and is slow. FAX is much easier and is done between two phone numbers, but sending a 100-page document is still slow, and costly.

Passing data between two computers is a different kettle of electronics - a 15-minute fax will go in a couple of seconds, and the receiving end can pass on copies or use bits in other documents.

Nowadays more and more companies have

computers and are realising that they can talk to other computers throughout the world, using special lines rented by British Telecom.

Here within GAv, the VAX computer is the most commonly used system and nearly all of them are linked on a network. It's therefore easy to send a file of information to any other VAX using VMMAIL software. Whether the other person is on the same computer as you or on another, if you include the name of the computer in the "address" it will get to him. Just like sending a written letter, if you know the address the computer will figure out how to deliver an electronic letter. In GAv it's simple. A typical address like ADD01V::29COM BIR means the chap with initials BIR uses the computer called ADD01V. Maybe you will have to ring him or her up to find out the address at first, but before long that sort of information will be as easy to find as a phone

number. On most VAX there's already an index of user names in the division; if you can't find it ask your Computer Systems Manager how. If you're told there isn't an index, look him full in the eye and ask why not!

Briefly, you can now talk to the USA via a GEC leased computer line through Atlanta, ATL01C just as easily, and they will pass the E-mail on to any other computer through their phone system. Far cheaper than using BT.

Increasingly, computers other than VAX can be accessed world-wide, and look-up directories are available which you can search from some of our terminals. Then you can use one of our BT connections to send your message using E-mail software, aka X.25 or X.400 Mail.

It's fast, cheap and easy to use. I shall miss my purple scented paper letters. You are a female cat, I trust?

I'll be back with you next year!



This country scene, painted by Clive Madgwick RBA, forms the cover of the 1993 Company Wall Calendar which has been produced by PSD, for distribution to our customers.

www.rochesteravionicarchives.co.uk

A Busy Season for the Reaper Club

We've had a report from Lorna Hosmer, Secretary. "Members were extremely sorry to hear of the deaths of two people who did so much to bring our Club to its present success - Jesse Griffiths our former President, and our ex-chairman Cyril Boorman. "Our outing to Eastbourne was a great

success, although nobody went for a paddle. We visited the BBC TV Centre at Shepherds Bush to watch the recording of the programme *As Time Goes By*, but the talent scout did not see us. At the Margate Winter Gardens, our coach party saw the *Black and White Minstrel Show* bringing back many memories of the old tunes.

"At our canteen meetings we have been entertained by the GEC Avionics Brass Band, with splendid soloists and a couple of songs from the warmly applauded Choir-girl of the Year, daughter of a player. The London Caledonian Society gave us Scottish singing and dancing, and the Cuxton Handbell Ringers were besieged on stage by members wanting to be shown 'how to do it'. Mrs Daws' Over 60s Concert Party and the entertainer Mr Higbee were well received, and Harry Staff's bingo and quizzes kept us busy.

"When this appears we will have had our Annual Dinner Dance and the AGM is due early next year. Our hard-working Committee are looking forward to keeping up the good work in 1993."



Golf Society's Score-card

Alix McSweeney, Captain, recalls the formation of the society 23 years ago by a dozen or so Social Club golfers.

From its early membership of 40, who received lessons in the Snack Bar from a professional, the Society has grown to its healthy present membership of over 100 people. This includes outstanding golfers like Irvin Gray the first secretary, who achieved a handicap of 2 - with a swing to beat all swings! Many far more modest players have a detailed and intimate knowledge of the bunkers of Kent.

This year's competition winners at courses throughout Kent were Mike Westcott, Craig Watts, Chris Hollingworth, and John Spry, with John Bottle gaining the President's Cup and Paul Humphrey the AG Harrison Cup for the Singles Knockout. The Durrant Doubles Knockout went to Andy Hughan and Paul Ansell.

On behalf of all members, Alix thanks AIF Harrison, President, for attending President's day, also for his support and that of all the Committee: John France, Chairman, Mike Broome, Vice Captain and Secretary; Brian Handley, Treasurer; Peter Warburton, Handicaps and Competitions Secretary; with Peter Fowler, Alan Gillett, Ron Mutter, Fred Nye, and Chris Kennedy. "Without them", Alix says, "the Society would not function in the professional manner that it does. Thank you, Gentlemen."

GEC Avionics Club Annual General Meeting

Wednesday, 24th February 1993

The constitution requires a number of Management Committee representatives to seek re-election after two years in office.

At the AGM, 4 vacancies exist and nominations should be in the Secretary's hands by 31 December.

Nomination forms are available from the Social Club Office, Snack Bar, Elaine Beard, Ex. 4058.

GEC Avionics News Advertiser

With regret we announce that the Advertiser will no longer appear. Product Support Division launched this item hoping that external advertising would more than pay for its production. Because our paper is bi-monthly with low circulation this has not proved popular to outside advertisers.

Whilst the internal support could have been better, it was perhaps encouraging to reflect that this type of service was needed. Thank-you to all those who did show their support, but for 1993 it's back to the notice board.

Peter Royall

Special Mortgage Scheme for GEC Avionics Employees

- Preferential Terms on the Society's current variable mortgage rate for twelve months.
- 15% reduction on Estate Agency Fees from Halifax Property Services.
- 20% discount on scheme 1 valuations provided by Halifax Building Society.
- Discount on legal fees.
- 10% discount on removal fees offered by Pickfords, by prior arrangement before quotation. Phone (0800) 212102.

To obtain more information on these benefits contact your local Halifax Coordinator

Rochester - Sara Powell (0689) 898586
Borehamwood - Chris Latham (0908) 211792
Bristol - Andrew Burnett (0443) 217784



Swimmers Boost Red Cross Fund

Our club swimming section has held its 5th Annual Sponsored Swim with around 6 grown-ups and over 30 children raising £725. Over the last 5 years the swimming section has raised a total of over £8,000 for a variety of charities.

This year the Section decided to donate any money raised to the British Red Cross Society's Hoo Branch. The branch was in particular need of a resuscitation junior dummy to help practice life saving resuscitation methods with children. The cheque was presented at the children's Fun Night on October 16th, when over 100 children saw a magician entertainer and danced at a disco. During the course of the evening the

fund raisers gathered an additional £109 with a raffle.

Personnel Director John Bradley and his wife Ann presented the cheque to Kath Jones and other members of the British Red Cross Society and gave certificates to the swimmers to mark their achievements. Amongst the children swimming, most money was raised by Gary Killingbeck (9) who gathered £75. Kim Tester (8) swam the greatest number of widths - 72. Sarah Moffett (16) swam a mile and Lucy Brown (9), who has trouble with her legs and has only been swimming for 6 months, completed an impressive 42 widths.

See pictures on Back Page.



by Martin Polley, Vice President of the GEC Avionics Brass Band.

The Band has flourished in 1992, with contests at Brighton, Folkestone, and Watford establishing our position in the 2nd Section of the Southern Area and the 3rd Section of the National Brass Band Championship.

Early next year we plan a new venture, which means that the GEC Avionics Brass Band will have to look really good as well as sounding good. The Band is entering the London and Home Counties Entertainment Contest, which is judged on visual presentation as well as our choice of music and quality of musicianship.

The quality of our performance has attracted

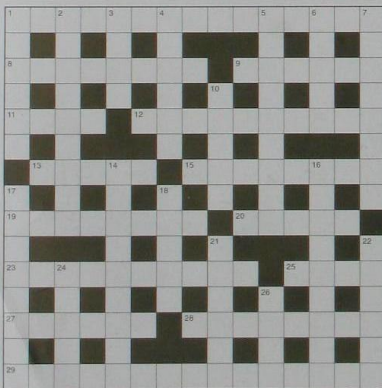
more accomplished instrumentalists, who are now established under the baton of Keith Woodger our Musical Director.

During 1992 the Band has played at many functions and venues, including the usual Dickens Festival bookings. Using the fees we have earned, we have invested in over £2000 worth of new instruments and equipment, which will help maintain the high standard of our music.

The Band takes this opportunity to wish Management, colleagues and friends 'A Happy Christmas and Harmonious New Year.'

For enquiries about the Band, contact Geoff Collins, GDD, Ex 3407.

Crossword No. 111 (For amusement only)



ACROSS

1. A full day (6,4,5)
8. Molar without sight (3,5)
9. Section of contract or sentence (6)
11. Anger of a sort (4)
12. Maidstone has one (6,4)
13. The GI's vehicles (5)
15. Like old furniture (8)
19. A flammable saint? (8)
20. African ruminant animal (5)
23. Frothy substance of autumn (6,4)
25. What you make in chess (4)
27. You are when at sea (6)

DOWN

28. Neither hot nor cold (8)
29. Hobson's choice, it's your decision (4,2,2,5,2)
1. Not practice, but basis (6)
2. It lasts through winter (4,5)
3. Weight of an old city (4)
4. A deep distance (6)
5. A high flower (9)
6. The wobbly bit! (5)
7. It helps solve this (8)
10. An ancient art of furniture maker (5)
14. Musical or literary medley (3,6)
16. Spying (9)

17. We should know, our goods go in it (8)
18. Is your junior sister one? (5)
21. By sight (6)
22. Note of authorisation (6)
24. Worn to use a dagger (5)
26. Girl's name (4)

SOLUTION TO CROSSWORD NO. 110

ACROSS

1 Imposition, 6 Opus, 9 Out of order, 10 Oslo, 13 Develop, 15 Heaven, 16 Talent, 17 Bubble and squeak, 18 Canine, 20 Pewter, 21 Exhaust, 22 Root, 25 Minor canon, 26 Ways, 27 Settle down.

DOWN

1 Lion, 2 Path, 3 Sulfen, 4 Three men in a boat, 5 Ocelot, 7 Past events, 8 Short skirt, 11 The back row, 12 Carbon copy, 13 Decline, 14 Panquet, 19 Espire, 20 Psyche, 23 Anno, 24 Anno.

GEC Avionics News

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Bob Attwood, MCD (Nalisea)
Jean Wilson, APD
Borehamwood
Lynne Bates, GAV Inc, Atlanta USA.

Friendships Renewed



Time for a toast!

At the 9th Annual Dinner and Dance of the Long Service Association in October, many reunions of old friends were a hallmark of an enjoyable social evening. The dinner was prepared for nearly 700 people by our Canteen Staff, to whom Chairman John Goodhand gave the members' thanks.



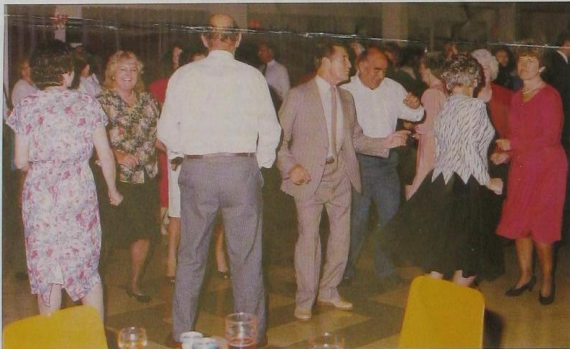
Nigel Price and his wife Mary, with John and Dot Colechin. Many years ago Dot briefly worked with Nigel.



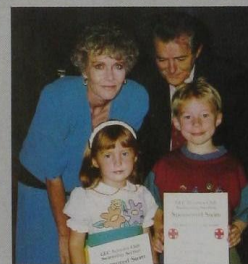
LSA President Harry Staff and Ann, with Vice-President Ray Beevis.



Mike Busbridge with Sandy (née Self), and behind them Kath Pole, Paul Cooper, Colin and Diane Bennett, Mary and Robbie Smith, and Len and Joy Clark.



Dancing to the 'Aries' Band.



John and Ann Bradley with the youngest swimmer Megan Wilson aged only 4 who completed 6 widths, and with 6 year old Adam Ling who managed an impressive 48 widths.

Young Swimmers Raise Money for the Red Cross

A cheque for £725 was presented to the British Red Cross Society at the Children's Fun Night. The money was raised by young swimmers by a half-hour's sponsored swimming at the club pool at Hoo.

See Page 7 for the full story.



Personnel Director John Bradley gives a cheque to the British Red Cross representatives led by Kath Jones, on his right. At the left is swimming section Chairman Cyril Moffett, and near him in front is the resuscitation dummy provided with the money and now used in training by the Hoo Red Cross. He is also called Cyril!

**THE
HISTORIC
DOCKYARD**

**20%
DISCOUNT
VOUCHER**

Chatham, Kent

**A special welcome to
GEC AVIONICS**

*This voucher entitles the bearer to
20% discount off normal admission
prices to the Historic Dockyard
and should be surrendered on arrival*

**Open Wednesdays, Saturdays and Sundays
10 am to 4.30 pm**

Valid 2nd - 30th January 1993