

INDUSTRY YEAR 1986

The Royal Society for the Encouragement of the Arts, Manufacturers and Commerce (more familiarly referred to as the Royal Society of Arts or RSA) has designated 1986 as **INDUSTRY YEAR**. In the words of its President HRH The Duke of Edinburgh, "Industry is by far the most important activity in our national life. This is a fact and it can do no good at all to give it a bad reputation ...

The aim of **INDUSTRY YEAR** is to encourage a better understanding of Industry, its essential role and its service to the community both directly and by its contribution to the Nations prosperity, security and quality of life. It will seek to foster the pride of those who work in Industry in their own achievements and contribution to the welfare of the nation.

But of the greatest importance for the future vitality of Industry, and thereby to the greater benefit of the Nation, is the objective of improving the understanding between industry and education. Even though we have been an industrial nation for approaching 200 years a disproportionate number of school leavers continue to give industry little consideration as a choice of career, and this will continue to hamper our industrial regeneration unless it is changed.

In all **EARSHOT** Issues this year we will be responding to the Industry Year

initiative by highlighting the Company's involvement in all the main areas of activity.

A record level of contact between GEC Avionics and the world of education last year looks set to be further developed in 1986. The Borehamwood establishment has developed strong links with secondary education over a long period. Last year, pupils from nine local secondary schools gained insight into the world of industry through work experience placements, and a further three schools arranged for pupils to tour the company. A dozen schools received talks on careers in engineering or invited the company to attend their careers conventions. Participation in the 'Hertsmere Industry Education Forum' and the 'Herts Science Review Committee' has improved the practical links between the Company and schools, an activity further developed by our donation of redundant equipment to schools.

The Company's contacts with further and higher education are equally significant. Our sizeable number of apprentices involves close liaison with five local colleges, whilst our requirement for graduate joiners has created strong links with polytechnics and universities, particularly those universities where the company runs its sponsored student scheme. The substantial number of

employees engaged on company supported further education courses has reinforced these links.

To meet the interest that 'Industry Year' is creating, divisions, departments and specific individuals will be asked to identify those areas where the company can make a contribution. This is important not only to ensure the success of 'Industry Year' itself but to establish a momentum to the years beyond so that the low standing of industry in Britain will see a fundamental and lasting improvement.

[Note: 'Industry Year' activities are being coordinated by Derek Lamb at the Training Department, Kenwood House, Borehamwood, Ext. 7252].

What do we mean by 'Industry'?

For Industry Year 1986, 'industry' is defined as the provision of goods and services which people need and want, in other words both manufacturing and service industries. These are the activities, whether publicly or privately owned, which create the wealth of the country on which all else depends — health, education, the care of the young and old — and from which our quality of life and standard of living derive.

Young Engineers

Yes News . . .

The Young Engineers Section of ESSC (YES) got off to a very good start in October, when over 70 people attended the Balloon Debate and Cheese & Wine evening. The debate itself was between five guest speakers, managers from GEC Avionics, and was won by Mr Peter Chinn. The speakers had to justify their continued presence in an imaginary hot air balloon which needed to lose weight in order to gain height. The debate was very light hearted, and the audience were able to turn the tables on the managers, since *they* decided who was 'thrown out'. Our thanks go to the debaters for being such good sports.

Following this success, YES membership grew steadily, reaching the magic 3 figures before Christmas. Many social events were organised; so far YES has held a lecture on rally driving, several trips to the dry ski slope at Hemel, ice skating at Richmond Rink, a video evening, theatre trips to see Rick

Mayall and Russ Abbott, as well as a 'pub hunt' in London. Nineteen teams entered this last event, which involved finding certain pubs by solving clues. The evening finished on a paddle-steamer on the Thames with a disco.

Forthcoming attractions include another pub hunt (this time in St Albans), a theatre trip to see Rowan Atkinson, Ten Pin Bowling and the IEE Faraday Lecture as well as some of the regular favourites. In addition we have recently arranged to go and see RAF Coningsby and Waddington, the Tornado and Nimrod operating bases. A squash ladder is being setup, and we hope to hold a motorsport event, of which more later.

Membership of the section is open to all young staff, not just engineers, who are *not* eligible to join the Apprentices Association. Full details are available from the Treasurer Cheryl Gibson, on Borehamwood Extension 6904. The Milton Keynes Site has its own YES, a

sister organisation to the Borehamwood/Welwyn/Radlett/Hemel one. The person to contact there is John Greaves on M.K. Extn 3.

The benefits of joining YES are considerable; the companionship of like-minded individuals, a monthly newsletter and cheap (and varied) entertainment thanks to group discounts. For example, members can recoup the cost of their annual membership fee in just one trip to Hemel ski-slope!

YES aims to provide something for everyone — we can even arrange trips to the Opera if there is sufficient interest, for example. If members have an idea for an event not already being run, they are encouraged to organise it themselves, with help from the hard-working committee.

Ian Montandon, YES Chairman,
Borehamwood Extn 6759

A Small Piece of History



The current vogue for salvaging wrecks of World War II aircraft such as Halifax and Wellington bombers from the icy depths of fjords and lakes, had its own small company counterpart on

Tuesday the 24th November when another item of World War II aircraft equipment was formally handed over to Mr Funnell, Curator at Hendon Aircraft Museum.

The item in question, an F.24 Reconnaissance Camera complete with its fuselage mounting and Type 35 Control Unit, had surfaced, not from the bottom of a lake, but from the bottom of a tea chest in the late Frank Stewart's darkroom at Ormond House.

Mr Funnell stated that the museums policy was to attempt to fully equip each aircraft in the museum with the original equipment used when it was in operational service.

The F.24 camera will probably be installed in the World's sole remaining complete Wellington bomber seen in the background of the photograph. Mike Dobbs, our new photographer, was on hand not only to transfer the equipment to Hendon, but also to record the hand-over ceremony.

Maurice F Hooper

Long Service Awards

1985



Stan Abbott
Mobile Radar



George Allen
ARS



'Batch'
Personnel



Charles Collins
CMS



Vinney Cook
Applied Physics



Ivan Dickens
ARS



Keith Lawrence, ARS
and *Ann Lawrence*
Security



Pat Edwards
Applied Physics



Robert Goodwin
ARS



Ralph Graham
Research Lab.

Awards in recognition of their 25 years continuous service with the Company were presented to 21 employees by our Chief Executive Mr D I Jackson at an informal ceremony on 23rd October 1985 and subsequently to two employees who were unable to be present on that date.



Evan Hallas
ARS - now retired



Frank Holiday
ARS - now retired



Roger Homes
Applied Physics



Arthur Hood
AWS



Terry Lane
Applied Physics



Ron Nicholson
Applied Physics



John Osborne
Applied Physics



'Tony' Raeburn
Head Office



Chris Spooner
ARS



Joe Turner
ARS



Len Warner
Applied Physics



Joe Wilkins
Applied Physics



Victor Wyatt
Mobile Radar

Apprentice Award Evening



Terry Beck



Paul Bunce



Sean Connell



Sean Runchman with Mr Derek Jackson



Nick Goldfinch

Our Annual Apprentice Award Evening, held on 30th October, was attended by 16 first year apprentices and their parents, eight guests from six different colleges of further education, who provide the technical education support within our apprenticeship scheme, one guest travelling from as far afield as Northampton, plus 50 others including company managers, apprentice tutors, training and personnel staff. In addition, present were the 12 members of company staff who had recently completed their training with the company and

were to be awarded their apprenticeship certificates.

Mr Jackson kindly hosted the evening and his opening address made mention of the commitment by the company to apprentice training and he expressed his satisfaction that the Apprentice Association had fulfilled another active year. Mr Jackson also gave special thanks to the newly appointed apprentice tutors whose numbers were to be increased still further.

The following were then presented with their certificates:

S Connell, O Lynch, D Nelson, T Beck, N Goldfinch, A Graham-Taylor, R Martin, S D Runchman, A J Gruber, P Bunce, K V Marriner and C Stewart.

After the presentations, all present enjoyed a very pleasant buffet and were able to have informal discussions on a number of training topics. The general view expressed was that it was an evening enjoyed by all.



Alex Graham-Taylor



Tony Gruber



Oliver Lynch



Keith Marriner



Richard Martin



Dennis Nelson



Colin Stewart

Happy Retirement

Best wishes on their retirement to:



Daphne Chalmers

Daphne Chalmers, Telecommunication Supervisor, after 32 years service.

Denis Duke, Senior Admin Officer of Airborne Radar Systems Division after 27 years service.

Maurice Hooper, Company Chief Production Engineer after 26 years service.

'Batch' Batchelder, Personnel Manager M-K, after 25 years service.

Doris Holland, Secretary to Chief Scientist, after 20 years service.

J H McGregor, Senior Despatch Clerk, Mobile Radar Department with 18 years service.

A G W Garrett, Chargehand Maintenance Engineer, Central Services with 17 years service.

H F Horton, Senior Section Leader, Airborne Warning Systems Division after 16 years service.



Maurice Hooper

and to others not mentioned above.



Doris Holland



Denis Duke



'Batch'

Congratulations: Congratulations: Congratulations

MBE for Glyn Thomas

"Glyn" Thomas, General Manager at Rochester, has been awarded the MBE (Member of the Order of the British Empire) in the New Year's honours list. The award is in recognition of his work as a founder and the Chairman of the Medway Enterprise Agency since it was established in 1982.

The Medway Enterprise Agency has had outstanding success in helping to counteract the effect of major industrial closures in Medway, including HM Dockyard. The Agency, sponsored equally by Rochester-upon-Medway City Council, Gillingham Borough Council, the Medway & Gillingham Chamber of Commerce and by companies in

industry and commerce has received backing for its second three-year term, starting last April.

In the Agency's first three years of operation, it created over 2,000 jobs in the Medway Towns, through new businesses and through job saving and business counselling activities.

David Glyn Thomas, always known to colleagues as "Glyn", lives in Tankerton, Whitstable. He was born in South Wales in 1921 and educated in Canada. He served an apprenticeship in the electronics industry, joining the company (then Elliott Brothers (London) Limited) in 1950.

New Arrivals

Warmest congratulations to Jenny Carlton, Airborne Software Division, and her husband Eric on the birth of their first baby, a daughter, Helen Connie Marcia, born on 25th October 1985, weighing in at 8lbs 7ozs.

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Also to 'Liz' Thornborough, erstwhile secretary to Jack Burden, on the birth of a daughter, Joanne Elizabeth Margaret, on 11th November 1985.

Wedding Bells

Congratulations to Sharon Eddy, of Publications Unit, on her marriage to John Inns on 30 November 1985 at St Michael & All Angels, Borehamwood.

High Life in Dunstable



During the early evening of Saturday August 17th, a thin column of cars could be observed moving in fits and starts across the grassy expanse of the London Gliding Clubs airfield at Dunstable.

Anxious faces peered through wind-screens in an endeavour to avoid a seemingly never ending stream of gliders and tug-aircraft, all of which appeared to be hell bent on flattening our respective vehicles into the ground.

When we finally arrived at our dispersal point on the far side of the airfield, we were greeted by Russell Dyer, who as a member of the London Gliding Club had arranged for twelve members of the staff to experience at first hand the delights of gliding (accompanied by an experienced pilot of course!).

Tense expressions flitted across the faces of some of the members of the fair sex as our E.T.D. (Estimated Time of Departure) approached.

Soon Maurice Hooper was observed being shoe-horned by an instructor into a very sleek German ASK 21 sailplane and within minutes he was hurtling across the turf attached to a tug-aircraft by a long length of cable.

One by one our intrepid aviators were led (dragged) to their respective gliders by a team of instructors, who assured them "there was nothing to it" — forgetting all about the sensation of the near vertical bank as they turned for the final approach — one wing tip seemingly pointing straight to the sky.

Slowly the numbers of the uninitiated dwindled until finally Ingrid Lewis vanished into the darkening sky.

How strange we on the ground mused, Russell had already taken off in another glider, and now Ingrid, his secretary, was also being transported to the starry heavens — to what joyous meeting amongst the planets?

We never did find out and as we departed in near darkness, it was agreed by all that it had been a great experience.

PS: Our instructors assured us prior to take-off that those nasty little brown paper bags were available in each glider. We are happy to report that none were required.

ASWD Pooled Their Efforts

Back in October ten hardy souls from the Hemel Hempstead site took part in a sponsored swim in support of the British Heart Foundation. Not only did they give of their energy, but also part of their sacred Sunday morning!

Most of the ten people involved completed 50 lengths of a school pool, and altogether they raised nearly £350, which was 12% of the overall £3,000 raised by the event. Our effort was very much appreciated — both by the Heart Foundation and by Sister Jenny King.

Those taking part were: Bob Andrews, Jackie Berrie, Malcolm Clements, Dennis Crips, Ian King, Jenny King, Stewart Settle, Mike Taylor, Steven Thornton and Gary Thorpe.

*This has nothing to do
with St Valentine*



*We didn't do it for love.
We did it for Heart Research.*

and Software Took the Hard Option

This was a team effort by Albert Wakefield and Hansa Trivedi of Airborne Software Division — AEW.

Albert entered for the 1985 Harrow Charity Marathon held on Sunday, 3rd November, and Hansa enthusiastically found the sponsors in aid of Heart Research and collected in the money.

Very many thanks are extended to all the generous sponsors who contributed to the sum of £84. Albert finished the 26 mile run in a time of 3 hours and 35 minutes.

Congratulations to Albert and Hansa on their very worthwhile efforts.

NEWS RELEASE:

GEC AVIONICS WINS MAJOR NIGHT VISION CONTRACT FOR EQUIPPING UK AND US AIRCRAFT

The £48 million fixed price order from the MOD is for systems to be installed in United Kingdom Tornado, IDS and Harrier GR5 ground attack aircraft to give a new "see in the dark" capability. The order also provides for equipping the US Marine Corps AV-8B with the same system.

The GEC Avionics system is regarded by the Services as a major "force multiplier", enabling operations at night and in poor weather to be carried out as in daylight, increasing the aircraft utilisation by a factor of three to one. This is of special importance in the RAF's close support role and for planned operations against ground targets.

This new application of TICM II is the first pilot-aid FLIR to be used by the Royal Air Force. The system has strong potential in the United States and a number of other countries. This selection by the Royal Air Force is expected to enhance the system's export prospects considerably.

In the United States, the FLIR system is to be incorporated into the overall night vision system of the US Marine Corps AV-8B aircraft by McDonnell Douglas at St. Louis.

The system will be developed and produced by the ELECTRO-OPTICAL SURVEILLANCE DIVISION at Basildon. The contract includes production options which could lead to further substantial orders at a later date.

The company's unique ability in this field has been greatly helped by involvement in the Royal Aircraft Establishment's "Night Bird" programme, which proved the concept of total night vision systems.

AND TO EQUIP ROYAL NAVY HELICOPTERS

The £34m order, won by the ELECTRO OPTICAL SURVEILLANCE DIVISION at Basildon against strong competition, is for systems to be installed in Royal Navy Lynx helicopters, giving them a 24-hour surveillance capability, and enabling the Lynx to carry out long-range target detection and identification.

The system includes a thermal imaging sensor, mounted on a highly-stabilised platform and sited on the nose of the helicopter. The sensor is based on the Thermal Imaging Common Modules Class II equipment (TICM II) which will enable surveillance to be carried out, in total darkness, and when smoke or haze are present. TICM II has additional

advantages of being fully automatic in operation and providing high-resolution images.

The image produced by the sensor (like a high-quality monochrome TV picture) will be displayed in the helicopter's cockpit.

Advanced signal processing of the image provides the operator with automatic target cueing thus considerably reducing workload. The new system will be completely integrated with the aircraft's avionics, including fully automatic operation and manual control via a joystick, if required.

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GEC AVIONICS' LIGHTWEIGHT TACAN ORDER FOR RAF'S LATEST TRAINER

Against keen international competition, AIRADIO PRODUCTS DIVISION at Basildon has won a contract to supply Tactical Air Navigation (TACAN) systems for Shorts Tucano, the new basic trainer aircraft of the Royal Air Force. The new TACAN fully meets the stringent size, weight and performance standards which are required in a radio navigation system for this type of aircraft.

TACAN stands for tactical air navigation system. The AD2780 which is the latest in a range of GEC Avionics TACANs is being supplied under a contract placed by Short Brothers PLC of Belfast.

TACAN, a widely-used navigation aid in military aircraft, provides pilots with range and bearing information derived from ground radio beacons, to enable them to navigate accurately. The GEC Avionics AD2780 is considerably smaller and approximately one third of the weight of any competitive system. This has opened up entirely new prospects for the adoption of TACAN in many kinds of helicopter and small fixed wing aircraft. These valuable navigation aids had previously been precluded, mainly by their size.

The AD2780 owes its remarkably low size and weight to the use of VLSI electronics and a compact solid state transmitter. It requires no additional analogue interface units for driving the pilot's conventional navigation instruments (such as HSI, RMI and BDHI). These interfaces are an integral part of the unit.

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THE CHINESE PLACE NEW ORDERS, WORTH £30 MILLION

GEC Avionics has now signed further

contracts worth £30 million with The Peoples' Republic of China, bringing the total since 1980 to £85 million. The contracts are with the China National Aero-Technology Import and Export Corporation (CATIC), which has total responsibility, on behalf of China's Ministry of Aviation Industry, for imports and exports of aircraft and avionics.

The contracts with CATIC are for the supply of a range of avionics equipment and support services. The equipment range has been specially designed for fitting to the Chinese Type 7 fighter aircraft and is the same as has been supplied under a previous major contract, signed in June 1980. It includes a Radar, Head Up Display, VHF/UHF Communications equipment, Air Data Computer and Power Supply.

GEC Avionics business with the Chinese began in 1960s with equipment for civil airliners. Since then, the company has established support and manufacture within the People's Republic of China which has cemented good relationships at technical and commercial levels.

In particular the Company has had full-time representation, based in Peking, since 1982. This has greatly helped in securing the latest contracts and in preparing for further business opportunities.

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GEC AVIONICS NEW VOICE CONDITIONING UNITS FOR BRITISH ARMY VEHICLES

The first major production order for a new Voice Conditioning Unit (VCU) produced by Airadio Products Division at Basildon, has been received from Hunting Hivolt Limited, the company responsible for their integration and installation in the armoured fighting vehicles of the UK Ministry of Defence.

The AD150 VCU combines a number of advanced audio-processing techniques, which greatly improve the intelligibility of speech communicated in high noise environments and its automatic voice operated switching is unique in that it does not "clip" away the first syllables, thanks to a company patented technique.

The contract, the culmination of considerable co-operation between GEC Avionics and Hunting Hivolt Ltd in the application of the AD150 to armoured fighting vehicles, is for several hundred units and is valued at nearly £¼ million.

:NEWS RELEASE

INDUSTRY YEAR *1986*

Sainsbury Trust Project 1985/86

One recent development in the Company's contact with secondary education is its recent involvement in the Sainsbury Trust. This aims to promote understanding of the world of engineering amongst older pupils. The project this year involved not only the manufacture of a computer controlled model vehicle but also development of the skills necessary to write a report and give a presentation of the project. For this the resources of the Training Department at Kenwood House were made available to pupils from St Albans Girls School.

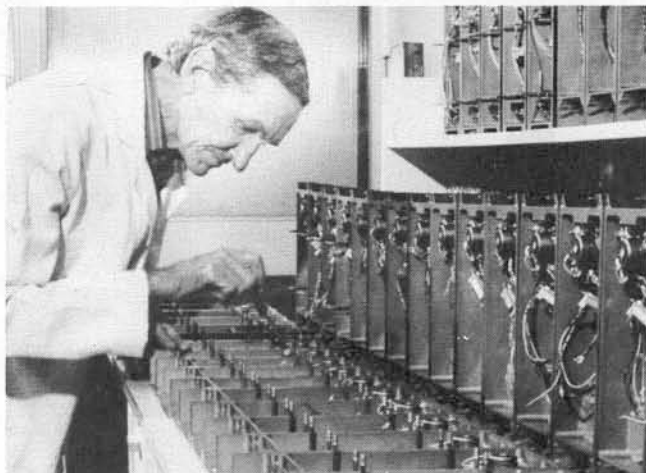


Heather Greenfield, Emma Skidmore, Jackie Claydon and Caroline Betts (left to right), sixth form pupils from St Albans Girls School, practice their presentation techniques using video equipment at the Training Department, Kenwood House.

Emma is explaining the gearing used on the computer controlled buggy, seen on the table in front of her.



Debbie Clark (left) and Jenny Leggatt, sixth form pupils from St Albans Girls School, test the continuity of their computer controlled buggy's circuit board at the Training Department, Kenwood House.



Eddie Hepburn of Mobile Radar Production department seen assembling HERMES sensor units, part of the production of five systems for an export customer.

HERMES has been developed as a company funded venture over the period 1981-85, to provide army commanders with information concerning the movements of ground vehicles in hidden or remote areas.

A reminder that "Earshot" is your magazine compiled from your contributions. Any item of general — or even local, interest and any articles or pictures are welcome and can be submitted through your local reporter/agent listed below.

Airborne Radar Systems Division
Airborne Warning Systems Division
Airborne Software Division
Applied Physics Division
Special Projects Division
Research Laboratory

R E Green
B P Tabor
A Usher
R L Collett
D Brazier
J Welsh

Central Machine Shop
Central Quality Department
Lightweight Structures Department
Mobile Radar Department
Model Shop
Publications Unit
Thick Film Department

M W Christian
R Easter
G Pinnegar
L H Urwin
J Horsted
J H Dyer
Dr K Lubenko

Accounts Department
Personnel Department
Security Department

Mrs R L Shribbs
R D Dyer
H R W Ellis