

NO. 02052

# MARCONI AVIONICS NEWS

House Journal of Marconi Avionics Limited

★ ★ MOTTO FOR THE MONTH ★ ★  
 'Fashion wears out more apparel than the man'

## 1982-1983, a time for technology accolades in MAV

With the recent showing on BBC TV's Tomorrow's World programme of the Company's prototype helmet mounted night vision system for pilots, when viewers saw HRH The Prince of Wales present certificates to Stafford Ellis and Jerry Fisher, Marconi Avionics people received their latest accolade for innovation and technology in a year which has been deservedly fruitful. Some of the previous accolades are worthy of review.

Looking all the way back to March of last year, prominent members of the MAV team, developing the holographic wide-angle HUD for the United States Air Force LANTIRN programme, received a citation from the influential American magazine Aviation Week & Space Technology, at a special ceremony in London at which the first LANTIRN HUD was handed over to the USAF. Ian Whitehouse, Project Manager and ADD Chief Engineer, Robin Slight, ADD Technical Manager, Stafford Ellis, MAV Design Consultant and Robert Eves, then ADD's Production Manager, had been cited in the magazine's 'new year's honours list' as having made among the world's most significant technological achievements.

In July, the same magazine announced the award of the John Curtis Memorial Sword to Peter Hearne, Director and a General Manager of the Company, for outstanding effort in Anglo-American aerospace activities. This sword, marking achievements by leading Britons and Americans, had previously been received by Air Commodore F.R. Banks RAF Lt General Thomas Miller US Marine Corps and General James H. Doolittle of the US Air Force.

Accolades for the whole MAV team, which can now be shown with pride on the Company's literature, were announced in April this year, with the winning of two Queen's Awards to Industry, two of only three Awards made to the whole of GEC. The Export Award marked a determined battle to achieve export sales and deliveries in which our share of the world market practically doubled over the past five years, despite ever-stronger competition. The Technology Award, for MASD's highly-successful range of acoustic processing and display systems, AQS-901, 902 and 903, was announced at the same time as a new £25 million order for the AQS-901 system. In announcing these successes, our Managing Director, Mr. Pateman, pointed out that everyone in the Company, whatever his or her job, could take pride in these Awards.

Returning to individual successes, the Haskett Trophy for Engineering Achievement was won last year by Emerson Oetzmann of MASD, for work which was recognised by this year's Queen's Award for Technology. This year's Haskett Trophy winner, again an individual entrant, was Mike Busbridge, for his unique solution to aircraft map displays using on-board computing more cost-effectively. This work is already leading to new business.

The background to the recent success in the Prince of Wales Award for Innovation and Production, shown on Tomorrow's World, throws into sharp focus the importance of innovation and technological achievement in MAV's business.

The Prince of Wales scheme is in two parts. The first is to award certificates to the entries judged to be most innovative, useful and likely to succeed. A year later, the best performer out of these finalists receives a cash prize. Three MAV Divisions entered the competition and all reached the semi-final. This means that of 80 or so semi-

finalists from all over the UK, three were from MAV, an unusually high rate of success. They were Electro-Optical Surveillance Division's export-winning day/night imaging system, known as 'Thermal Imaging Common Modules', Combat Aircraft Controls Division's 'fly by wire' flight control system for the Italian-Brazilian AM-X aircraft project, and the helmet-mounted night vision system of Airborne Display Division, one of the eventual eight finalists.

The system, in which a pilot can see an intensified image of a night scene superimposed on the natural view, is unique. It can help pilots to scan ahead and then look down at instruments, and pick up other visual cues, in a way which is not possible with other systems. It can even survive failures automatically. It does this by means of the unique optical design, invented and patented for the Company by Company Design Consultant, Stafford Ellis. The problem, and the need for its solution, was presented by ADD Sales Manager, Jerry Fisher, who, since joining the Company, has been a prime mover in getting acceptance from prospective customers and identifying difficulties which always occur when evaluating prototype equipment.

The equipment represents a high-risk project, in that money has to be spent in development before all the technical problems have been identified and solved. In MAV, such projects are progressed, along with lower-risk developments, in order to obtain the right mixture of competitive products for the future.

It is rather unusual to publicise a high-risk venture so early in its development, but ADD chose to do so in this case because it would give exposure to more prospective users and because the Prince of Wales Award is for new products in the making, encouraging innovation rather than just rewarding the final achievement.

With constant review of the optical design by Stafford Ellis and with determined effort by the whole ADD team involved, many problems with the new viewing system have already been solved. It is now more compact than competitive products, is more comfortable to wear, gives the combined natural and image-intensified view and is genuinely failure surviving, in a way in which competitive systems are not.

More problems still remain, but ADD has every incentive now to solve them, encouraged by the favourable opinion of Sir Monty Finniston's expert team and the accolade of the Prince of Wales Award.

These star performances are, in a way, highlights of technological achievements by many members of the MAV team in many different places. The achievement of success in training programmes, conforming to new customer standards ahead of our competitors, in solving problems of all kinds for our customers, and turning innovation into business and so securing jobs, are a few examples of the many unpublished achievements which are nevertheless important to MAV's successful way of working.

The achievements of individuals are a matter of pride for us all and would not be made without the two essential ingredients of team work and an organisation which encourages individuals and teams to work successfully. The Company's ability to innovate is a matter of importance for the future of every one of its members, and is borne out time and time again by successes of the kind described.

The prototype helmet mounted night vision system for pilots.



### A note from the editor

The very day that this issue goes to the printers is the day on which our good friend and colleague Jesse Griffiths lays down his pen and blue pencil. It is with both humility and anticipation that I look forward to carrying on the work he so ably started over five years ago — as well as not a little nervousness! I look forward to keeping up and developing all the ways in which a paper such as this is able to interest, inform, and maybe entertain all of our people here at Rochester, with your help.

Although my name now appears in the Editor space, this present issue is largely Jesse's work, but I feel that I cannot send it to print without adding my tribute and thanks to him with our best wishes for a happy retirement.

Jesse — thanks from all of us.



Stafford Ellis (left) and Jerry Fisher.

Jerry Fisher, AFC, came to the Company from the RAF where he had served for over 20 years. For some of his service life he was Liaison Officer for the RAF within the Company. His flying experience, which covers most of the more important recent types of high speed aircraft, used by the services as air defences, enables him to inspire and direct new innovative items, to aid pilots, and to make the art of piloting a safer job; and to ably represent the Company in its dealings with customers.

Stafford Malcolm Ellis was born in Melbourne, Australia on 12th April 1917 and educated at South Melbourne Technical College.

He worked for a number of companies from 1938 including the Commonwealth Aircraft Corporation, Handley Page and Napier (Aero Engines) before joining Elliott Brothers at Borehamwood in 1949.

As Chief Designer of their newly formed Aviation Division he was responsible for the design of the prototype autostabiliser hydraulic actuation equipment for the English Electric Lightning. In 1955 he led the mechanical design team on the V Bomber Master Reference Gyro and following this the Blue Steel navigation System, and in the early 1960s the Inertial Navigation Platform which was later adopted for the Jaguar NAV/WASS and Nimrod.

In the early 1960s he worked in the Elliott Flight Automation Research Laboratory (Manager from 1966 to 1968) and during this period his design interest in hydraulic actuation extended to multiplex failure survival systems and culminated in the quadruplex fly-by-wire actuator adopted in 1970 for the Tornado.

In 1965 he turned his attention to the design of optical mechanical aspects of Head Up Displays which yielded the systems chosen for the LTV A-7 and General Dynamics F-16 Aircraft, the miniature Mono-HUD a helmet mounted HUD, and very recently the unique holographic wide angle display unit chosen for the USAF Lantirn Programme to be implemented on F-16s and A-10s.

His activity during 40 years in the UK Aerospace Industry has resulted in over 30 patents and has significantly influenced the product line of Marconi Avionics where he is Company Design Consultant.

It is estimated that he has in current service throughout the world more than 10 distinct designs of equipment in 20 aircraft types covering electro mechanical units, including, in addition to the above mentioned, air data system sensors, mass flowmeters and many ancillary devices.

[www.rochesteravionicarchives.co.uk](http://www.rochesteravionicarchives.co.uk)

Marconi Avionics News  
Editorial Office  
Training Dept.  
Airport Works  
Rochester, Kent  
Tel: 44400 ext. 188  
(Int. 2835)  
Editor: Francis Later



**Liaison Officers:**

Lynn Roberts, Atlanta, USA  
Gerry Rich, Nalwa  
Beryl Downie, Accounts  
Vic Hayward, AS & RD  
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Others are required for: CDD, RAS

Volunteers should offer their services through Divisional Administrator Officers or direct to the Editor.

**OBITUARY**

The following named persons, both former employees of CMS have died:-

Mrs I.P. Young at St. Williams Hospital on Thursday 5th May 1983 and Don Dryland of Tool Room.

We regret to announce the death on 13th June of Eric Verrall, semi-skilled operator in Gyro Division. Eric had been with the Company for 16 years.

Also of Bill Balderston, Foreman in AS & R, who died on 26 June. He had been with the Company for 20 years.

**Mayhew Appeal**

The response to the Jane Mayhew Cavitron Appeal in a previous issue has resulted as follows

M&V Accounts & Wages	£ 14,54½	FARL	20.20
Print Room	4.18½	PSD	25.03
Gyro	10.63	CDD	16.09
M&V Management	23.85	M&V Transport	5.45
EDP	11.15½	Works Engineers	6.87
IND	14.08½	M&V Training Office	7.49½
M&V Personnel Dept.	4.53	M&V Training Centre	12.47½
-CD	34.87½	M&V Ratielair's Office	8.10½
CMS	22.24	ATE	194.46
CACD	53.38	ISD	40.72½
ADD	43.09	Mrs. Collins, Longacre	5.00
MASD	65.43½		689.30
Canteen	11.20	M&V Inc. Atlanta USA	45.00
AS & R	34.29		£734.30

The thanks of the organisers are extended to all who contributed in any way.

As we closed for press the following letter was received from Jane's father in Germany.

München, West Germany  
10 June 1983

Dear Editor

I have been informed that a large sum of money has been collected for the Cavitron Appeal. The generosity of people to donate for this cause is fully appreciated by myself and my family.

I am sure many other families with young children who have the misfortune to require such treatment will also be thankful to have the facility of a Cavitron machine to perform such delicate and dangerous operations.

We have been informed that my daughter, Jane has a 50% chance of the tumour returning. At present she is at our home in West Farnleigh. Her radiotherapy treatment has now been completed. Although Jane is a long way from recovery she is making progress. She is able to stand and say a few words, her eating has improved and she can sit in an upright position. She sleeps through the night and appears to be much more contented in home surroundings. She returns to London on 12th July for a check up and brain scan.

Sincerely  
Roger Mayhew  
ATED

**News of Company Apprentices and Trainees**

Those listed below have now completed their training courses with the Company and we congratulate them on their appointments to Divisions.

C.M. Appleyard, (ISD), Tech Pubs; T. J. Madhurst, (ISD), Logistics; I.M. Houston, (ISD), DO; D. Barndon, (CACD), Instruments; P.R. Hogan, (Gyro), Stock Control; S.W. Wynn, (Gyro), Clean Room; G.D. Bulton, (CMS), Bench Fitting; D.W. Masters, (ATED), Fitting; J. Stone, (ATED), Machining/Fitting; J. Stevens, (CACD), Assembly; L.G. Vandertak, (ISD), Progress; S.M. Briggs, (ATED), Wiring; K.E. James, (CACD), Wiring; J.P. Pardine, (ATED), Wiring; M.A. Jarvis, (ATED), Engineering; I.A. Thomas, (ISD), Logistics; P. Wyatt, (Gyro), Production; M.R. Tickner, (ADD), Model Shops; G.R. Charter, (AS & RD), Instrument Technicians; A.P. Squires, (CACD), Inspection; P.R. Davies, (ADD), Inspection; R. Payne, (Gyro), Clean Room; A. Elms, (ADD), Test; I.D. Bishop, (ADD), Inspection; S.F. Read, (Gyro), Buying; J.M. Oram, (IND), Purchasing; I.M. Simpson, (IND), Test; A.S. Martin, (ADD), Model Shops Wiring; J. Sinfield, (ADD), DO; C. Sanders, (IND), Tech Pubs; H. Tumbler, (AS & RD), DO; P. Sellen, (ATED), DO; C.C. Clarke, (ATED), Tech Pubs.

**Congratulations**

**Silver Wedding**

We offer our Congratulations and sincere wishes for continued happiness to Ernie and Molly Banks who celebrated their Silver Wedding Anniversary (25 yrs) on 7th June 1983. Ernie is a Foreman Inspector in FCD.

**Marriages**

Miss Pauline Martin, of the Mailing Dept (WES) was married to Mr. Simon Hall, at Milton Church, Gravesend, on Saturday June 11th 1983.

On Saturday, June 4th 1983 at Christ Church Gravesend, Michael Richardson Smith was married to Christine Green.

Both bride and groom work in MASD. Michael is a Planning Engineer, and Christine is a secretary in the Engineering Dept. A number of gifts were presented to the happy couple from friends and colleagues.



(L to R) Mr. J. Goodhand, Production Manager MASD, presenting the canteen of cutlery to Christine and Michael assisted by Mr. A.P. Cawil - Project Manager. (A)

June 4th 1983 was the date of the marriage of Nigel Foa, a Tester in PSD Production area, to Christine Breeze, a Civil Servant (Clerk in the Department of Employment, Gillingham).

The marriage took place at the Parish Church of All Saints, Horstead, near Norwich (Christine's home town).

To wish them well, and a long and happy union, friends and colleagues presented Nigel with kitchen equipment, bathroom equipment and glassware, and many expressions of good wishes.

**21st Birthday**

We extend our congratulations and best wishes to Mandy Ellis, a typist in CACD Purchasing Dept., on attaining her 21st Birthday on 24 June 1983.

**STOP PRESS - Births!**

We particularly send our best wishes to Alan Keats and his wife on the birth of a daughter on June 30th.

Alan is well known for his photographic work for the Company and many of the pictures in this and previous issues were taken by him.

**'BETTER SAFE THAN SORRY' - AGAIN**

In our last issue there was an announcement concerning the engraving of your car windows, quoting a price to M&V employees of £5. We have now heard that a similar service is available from the same source but at a cost of £5, to engrave six car windows at your home. Phone Medway 826218 (24 hour number).

**Holiday and Travel Insurance - are you properly covered?**

Unexpected illness, injury or death could cost you or your family a lot of money on an overseas holiday. As the holiday season gets underway, you would be well advised to seek appropriate insurance cover, as the Company only provide such cover when an employee travels on Company business: this does not extend to your own private arrangements.

Most travel agents offer insurance packages at a fraction of the cost of the total cost of the holiday, but if you are a member of WPA Supercover Scheme your existing health cover continues automatically when travelling abroad on holiday.

WPA subscribers can obtain an additional package to cover delays, cancellations, personal accident and liability using AA Travelsure that the GEC/WPA scheme offers, and details are available from John Neale in the Personnel Department.

**WINNER**

The winner of the "TV Trivia Quiz" which appeared in issue 51 was Mrs. S. Goodrum of FCD who has received her prize of £5 worth of TV license prepayment stamps.

**Long Service Association A.G.M.**

The Annual General Meeting and Strawberry Tea were held at Featherby Road on 17th June. About 100 members attended an encouragingly high proportion of the total eligible. Certificates were presented to 20 new members by Mr. D. Harries, President, but unfortunately another 28 were unable to be there.

K.W. Hyde was re-elected as an M&V committee representative and W.R. Brunton was brought on as a Fisher member. Plans are being made for the annual Dinner Dance to be held in the main canteen on Saturday 29th October - a date for members' diaries.

The meeting heard with regret of the decision of A.J. (Bert) Snowball to retire as Chairman, and at a subsequent committee meeting R.L. (Ralph) Tappenden was elected to succeed him.



**"A DAY IN THE LIFE"**

The morning of 2nd June did not dawn bright and sunny. The clouds were low, and the cold wind carried small drops of rain. But nothing could dampen my sunny spirits. I had a treat in store! I had never flown before, but in my capacity as Secretary to Malcolm Moulton, the Company Information Executive, I had the opportunity to fly in the Company plane, to High Wycombe, to pick up (in the nicest possible way) a top journalist visiting the Company for a briefing.

Although it was my first flight, my only moment of fear was just prior to take-off when I saw my husband waving what I fondly thought was a hankie in farewell. I suddenly wondered if it was our insurance policy instead. Did he know something I didn't? But I was in safe hands. Eric Taylor, Chief Pilot for the Company, kindly let me sit in the co-pilot's seat, complete with microphone and earphones, and soon we were off into the wild grey yonder. To a complete novice like myself, it was a fantastic experience, and all I had ever hoped flying in a small aircraft would be. Although it was turbulent, I was able to enjoy the panoramic views unfolding beneath me as we followed the winding Thames en route to our destination. The journeys there and back were far too short, and I was reluctant to leave the plane, but I had further treat in store!

In the late afternoon, my boss and I, together with a lady reporter from BBC Radio Medway, travelled the long route to Lasham Aerodrome in Hampshire, to meet journalists who had been invited to a preview of the National Gliding Championships, which the Company are sponsoring this year. It was a long stint, starting at about 6pm and going on until after 10pm, and my task was to ensure that each journalist had all the necessary information on which to base their article and to keep a record of all who attended etc. generally helping in whatever way I could. During that long spell, I naturally had plenty of opportunity to observe the gliding, something I'd only previously witnessed on film, a truly absorbing occupation. Our lucky journalists had been invited to go gliding, to give them an insight into the sport, and even seasoned fliers were returning to the clubhouse professing to be totally overwhelmed by the experience. But I too was lucky, and luckier than most. It was kindly arranged that I too could take a fly, exciting enough in itself, but when the 3-times World Champion, George Lee, asked me if I minded going up with him, words failed me!

While the tow plane took us up to the required height, George kindly explained the controls to me and chatted to me about his background. Considering his remarkable record, he came across as a very modest and unassuming man. Once the line was released, we were on our own, in a world one could only normally dream of. Gentle currents of air kept us aloft in a sky filled with diffused rays of sun and misty clouds and everywhere we looked we saw rolling Hampshire countryside splendid in the last of the evening light. First and foremost my overwhelming sensation was of perfect peace, a feeling of floating in space.

This joy lasted roughly 15 minutes, one loses all sense of time up there, and when we landed mere words were totally inadequate to convey my thanks to George, but I can assure you I did my best!

After the flying, Malcolm explained to the journalists the Company's reasons for sponsoring the National Championships, as a means of promoting excellence in aeronautics (a slogan which the gliding world seems to have taken to) and George Lee spoke about his plans for the World Championships which were to begin on 21 June at Hobbs New Mexico. George is strongly tipped to bring back a fourth successive win for Britain. No-one has ever achieved "three in a row" before, and George was taking the prospect of a new record achievement with a calmness which greatly impressed everybody.

Much later, driving home in the dark, my thoughts constantly returned to the amazing fact that, never having flown before in my life, I had achieved the "double" twice in 24 hours and in such different craft. As we passed by Gatwick Airport, my thoughts turned to jumbo jets and Concorde. But it had been a long day. Perhaps next time?

Shirley Parnell

**Parachuting**

During the weekend 18/19th June Jackie Smith of Gyro's Cost & Budget together with her boyfriend Stuart McCall, former Marconi's employee of AS & R's clean area, now of Medway Automatics, undertook a weekend of intensive training in the art of parachute jumping at Headcorn in aid of cancer research. Due to adverse weather conditions however they could not achieve their sponsored jump that weekend but managed to complete it four days later (without breaking any limbs) Both parties had never undertaken anything of this nature before - so great courage was needed from both of them.

Over £500 has been raised for this charity to date, many of the pledges coming from Marconi employees. After the jump, Jackie on reflection was quoted as saying, "I enjoyed every moment of the course, but most of all I would like to thank everybody who contributed generously to this venture to make it a worthwhile success, thank you".



Stewart McCall and Jackie Smith.



## Haskett Trophy for Engineering Achievement 1983



The group of award winners. Back row (L-R) S. Dale, C.P. Cole, W. Hatton, J. Stephens, M. Samwell, J. Pointer, I. Ladd; Front row: L. Delfanne, R.B. Smith, J. Kilazoglou, A. Hodge, and M. Busbridge. (D)

The ceremony of presenting the Haskett Trophy Awards for 1983 was held at the Airport Works. This was the sixth annual awards ceremony, at which prizes exceeding £1000 were awarded.

The Trophy, presented by Mrs. Sarah Haskett, widow of the late Fred Haskett, is awarded for engineering achievement, to encourage engineers — individuals and groups of two or more — in producing ideas which can be applied to the Company's products, either currently in production, development or for future advantage.

1983 sees an individual winner, as did 1982. Mr. Mike Busbridge a Project Manager in ADD having received the accolade of being placed first, received the Trophy and cheque from Mrs. Haskett. Details of his submission were given in the last issue, relating to a new kind of map display for aircraft.

Mike Busbridge, is aged 40 and a resident of Rochester. The most meritorious runners up prize of £250 was shared by Alan Hodge and Jim Kilazoglou of MASD.

Two other teams received prizes totalling £100 each, and were composed of Richard Smith, Luc Delfanne, Ian Ladd, John Pointer, Michael Samwell and James Stevens, all members of CACD, for a new airborne computer; and Gordon Walker, Nick Hatton, Chris Cole and Simon Dale of ISD, for developing a new system for monitoring the torque delivered at a helicopter's rotor.



Mrs. Haskett presents the Trophy to 1983 winner — Mr. M. Busbridge. (D)

## Appointments and Promotions

Among recent promotions we congratulate the following:

R. Walters	CACD	Engineering Manager
J. Mortimer	Gyro	Assistant Sales Manager
S.P. Ainsworth	MASD	Senior Systems Engineer
Mrs. S.K. Bolt	MASD	Senior Systems Engineer
S.E. Douglas	MASD	Senior Systems Engineer
S.W. Kelly	FARL	Senior Systems Engineer

Also noted is the promotion of **Terry Smith**, Production Manager of ATE to Production Director at McMichael, Slough. Our best wishes go with him — more on this next month.

## Welcome Back!

We congratulate the following Student Technologists now completing their four-year sponsored university (or polytechnic) training courses, who are taking up positions in Engineering Departments.

Paul Beck	CACD	Susan Howell	CACD
Michael Bradley	FARL	Richard Lane	Gyro
Peter Burfield	ATE	Geoffrey Medcraft	ATE
Mark Chamberlain	ISD	Tim Midlane	PSD
Andrew Fogg	ATE	Stephen Parker	Gyro
Peter Gilbert	FCD	Anthony Rowland	ADD
John Hartridge	FCD	Paul Webb	IND
Roy Higgins	MASD	Hugh Wightwick	ADD
Michael Hole	ISD	Gareth Williams	FARL

Also Paul Knowles, following his Business Studies course is joining Accounts Dept.

## Clean Kitchen Shield

We can now show pictures of the presentation of the Clean Kitchen Shield, to Mrs. Helen Scott, by Mr. Barry Hughes of Applied Chemicals Ltd.

The whole of the canteen personnel can take pride in being the winners of the shield, especially so, as it is the first time it has been awarded.



An on-site training session of the canteen staff by a member of the Allied Chemicals Ltd. Company. (A)



Barry Hughes of Applied Chemicals Ltd., makes the presentation to Mrs. Helen Scott. (A)

## Career counselling

We welcome back to the Company and to Personnel Department **John Ainley**, who after a short spell in another place has been appointed as *Employee Development Manager*. The following is published at his request.

The employees of Marconi Avionics are the Company's most valuable asset. The large size of Marconi Avionics (11,000 people on four sites) and being part of GEC, Britain's largest private employer means that the potential career prospects of MAV employees are unrivalled.

To remain the world leader in the avionics market we must retain and develop high calibre staff. Career development is a two way process, the Company expects its employees to improve their individual and collective performance, in return the employees expect their improved performance to result in their potential being recognised and developed, their careers being planned.

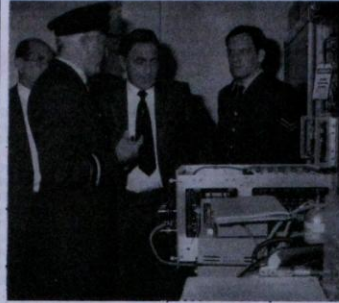
The Company's decentralised structure has led to many employees limiting the scope of their career aspirations to one Division. One major advantage in operating a large number of Divisions and sites is the opportunity to extend career aspirations over several Divisions. Employees are able to take advantage of the diverse development opportunities to further their careers.

The Personnel Department plays a major role in career counselling and is able to provide employees with details of all current vacancies within the Company, and in addition, all promotional opportunities are posted on divisional notice boards. The Department is also able to recommend employees requesting transfers to be considered for vacancies. It should be borne in mind, however, that transfers are primarily made for promotional reasons.

On Wednesday 3rd August and on subsequent Wednesdays, John Ainley will be available from 2pm - 5pm in half-hour sessions to discuss career development with technical and professional staff. To arrange an appointment ring Chris Carter on internal extension 2367.

## Marconi Avionics products in use

### Tornado ATE in use at RAF Henlow



The picture shows Mr. Les Reames (far left) who at the time of the visit was in charge of the Test Equipment Wing at RAF Henlow (since retired), Corporal R. Covell of RAF Henlow (far right) and Jim Walker, Senior Systems Engineer from Marconi Avionics ATE Division (3rd from left) discussing the Tornado Low Frequency Automatic Tester with Air Vice Marshall D.W. Richardson, MSc, BSc, CEng, MRAeS, FI Mech E, RAF (Air Officer Commanding Maintenance, RAF S.C.) on the occasion of the Air Officer Commanding's inspection of the Henlow unit, October 1982. AVM Richardson was particularly interested in the reliability and usage of the ATE and learned how the initial testing problems had been overcome to provide the RAF with its first training facility for engineers and technicians who will be using the equipment in RAF service.

Similar machines are being installed as part of Europe's largest ever avionics ATE programme at Royal Air Force bases operating the Tornado aircraft in the UK and Germany and also at Luftwaffe and Italian Air Force bases. Marconi Avionics ATE Division is responsible for the overall management of design and development activities on this tri-national programme; as well as the design and production of the LF ATE specifically, plus a range of instrumentation used in the corresponding radio frequency, microwave and video testers.

Marconi Avionics have also supplied ATE hardware and software for use in factories in the UK, Germany and Italy where avionics are produced for the Tornado.

## Suggestion Scheme

Two members of AS & RD have scooped a big prize in the Suggestion Scheme Awards.

Barry Dibble, an ex-apprentice, now a Quality Technician, and Robin Archer a 3rd year apprentice, shared a prize of £132 for a suggestion relating to an improvement by a Relay Testing Device for the Harrier Auto Stabiliser, which effectively reduced the time of the operation from days to minutes.

Mr. W.H. Alexander OBE made the presentation to the winners. Barry Dibble acknowledging the award, paid tribute to Bill Day, a former colleague — now in Australia — who did some of the original work on the device. It is significant that both have had the benefit of training under the Company's Apprenticeship Scheme.



Our picture shows (L-R): Barry Dibble, Mr. W.H. Alexander, and Robin Archer. The device stands on the table.

# Around the Divisions

## Twenty years of testing

### ATED

It seems appropriate in a house journal to write about a member of the family in a way which tells of its ancestry, its good and bad times, its character and its contribution to the family as a whole.

Automatic Test Equipment Division was 'born' in 1961 at Borehamwood, one of quads, the other three being Gyro, Airborne Computing and Environmental Research Laboratory (now FARL). It took the next six years to really decide on a name: Flight Support Equipment Division (a combination in 1965 of ATE and Precision Test Equipment Division) joined with Airborne Display Division in 1966 with the very fatherly name of DADD (Data Analysis and Display Division) only to be separated a year later and named once again ATE Division. Now at the 'age' of 22, the Division is one of the largest in the Company, has an order book value which many would envy and has its own roof! (Covering over 70,000 sq. ft.). ATED has known quite a number of homes and has been a great mover. From Borehamwood to locations in the Medway area its homes have included the tower block, huts, hangars, 'garages' and now in the West End of the Rochester establishment in what was the Thorn radio valve factory.

Traditionally, the Division has supplied test equipment of one sort or another to sister divisions in the Company as well as to its prime customer the Royal Air Force who used our ATE in support of Nimrod aircraft during last year's victory in the Falklands. Previous use of ATE Division's equipment in anger was by the American forces during the Vietnam conflict when special support equipment designed and produced by us was installed on US Navy aircraft carriers.

These were heady days — it was not always so and ATE Division, like others, has had its fair share of disappointments, in particular those connected with the cancellation of TSR2 and F-111, but the 1970s generally were a period of increasingly bigger order books and more personnel. The largest contract ever let for military avionic ATE in Europe was signed in December 1975 and the various tasks associated with this, the Tornado automatic test system, have since



Part of ATE Production Area (Nov 1968). Some of the people in this photograph are now in the USA, in other divisions or companies. Towards the top centre is Elephant Fred Walters — so called because he was chased along Strood High Street by an escaped elephant.

provided large teams from all disciplines with valuable experience (and experiences!) Managing a tri-national programme as well as supplying a significant amount of equipment for all four types of ATE has been quite a headache at times but one which has been tackled by members of the Division with sustained enthusiasm. An ATE person is a special breed — not protected from the persecution of customers who appear, reluctantly, to decide very late in a programme that maybe ATE is necessary although it cannot be precisely specified, that ATE Division should supply it although the customer would rather make it himself, there is no money in the budget, if it is not available yesterday the customer's image will be tarnished and why didn't ATED anticipate this need anyway!

Before the Tornado era, ATED beat off stiff opposition to get the contract which it is said really established in the UK the

pattern of ATE as we now know it. At the Farnborough Air Show in 1966 it was made known that the Division would receive an order worth nearly £1M for ATE for what was then the HS801 maritime Comet aircraft — later named the Nimrod Mk1. The equipment was the first European made ATE to use a digital computer to control the testing of avionic units (black boxes). For good reasons the computer chosen was the Elliott 920B, the same as that used in the Nimrod itself. By proposing this revolutionary new ATE which beat the competition on price, technical capability and commonality with the aircraft equipment, ATED established itself as the leading supplier of this type of test equipment in the UK and a serious contender for prestigious contracts in the USA. When the bidding started for ATE to support the F-111 K swing-wing aircraft for the RAF, ATED were up against no unfamiliar competition — politics at home, industry abroad. The British press reported the Government's intention to buy American ATE costing, initially, £2M (later reduced to around £3.5M) rather than that proposed by ATED at £2M. Lots of meetings, reconsiderations and re-assessment followed before the decision was announced — buy British! So the Division had won two very large orders in less than 12 months and the number of people in the Division, which had slowly fallen from 230 in September 1965 to 130 in September 1966, increased to nearly 300 in early 1967 when the Government cancelled the F-111 contract.

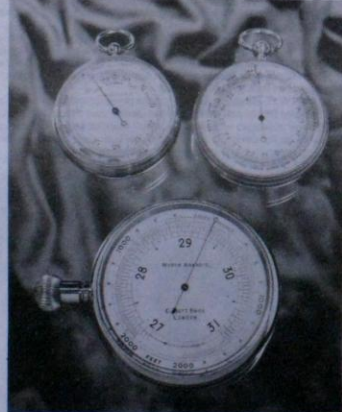
This traumatic experience was not the disaster it could have been and most of the Division's resources were redeployed over contracts which were requiring more input. Around this time ATED were involved in work for the Navy and Army as well as commercial airlines. For the Royal Navy the Division designed and built Mermaid — so called because it tested underwater weapons — and for the Army a first proposal was made for MATE (Multi-System Automatic Test Equipment) — first because this proposal was followed by two more before a decision on what to buy was finally taken 16 years later in 1982. Whilst these future systems were being proposed the Production Department was busy supplying test equipment

### ISD

Instrument Systems Division, with a personnel strength of 420, is typical of the manufacturing Divisions at Rochester and covers two main product areas: Air Data Computers and Stores Management Systems. Stores being the industry term for aircraft releasable packages — i.e. weapons, ammunition, fuel tanks etc. Most of these products are for the military aircraft market and a very high percentage of the Divisions output is for export.

### Air Data

The Company has a long history in Air Data stretching back to the early pioneering days around 1880 when balloonists needed pocket altimeters. During World War One, the Vickers Gunbus was fitted with an Air Data panel which incorporated both an altimeter and an airspeed indicator. These early instruments were manufactured by Elliott Brothers, the Marconi Avionics founding Company, and were flown by many World War One pilots.



Early pocket altimeters.

Fixed wing Air Data Computers were produced in the 1950s as a result of the increased aircraft complexity which had grown from World War Two. These computers were strictly analogue, using motors, gears and cams for calculating the various output parameters. The most advanced of this type of computer was fitted to the Lockheed C-5A Galaxy which represented the Company's first United States contract. Other vehicles to carry this technology are the Anglo-French Jaguar, the Lightning, the Buccaneer, the Nimrod and the BAC1-11. However, the cost of ownership of these computers is rapidly increasing, due to the inherent wear-out modes and cost of spares and obsolete components.

Subsequently, the Division developed an all digital Air Data Computer in the early 1970s. The culmination of these parallel experiences led directly to the current Standard Central Air Data Computer (SCADC) contract.

The United States Navy and United States Air Force issued a Development Contract to ISD in September 1981 for SCADC which would solve a major part of their logistics problems associated with operating out-of-date equipment. Many United States aircraft are candidates for this potential retrofit program including:

A-7, A-4, A-6, E-2 and C-2 for USN and C-5, C-141, C-135, F-111, F-4 for USAF



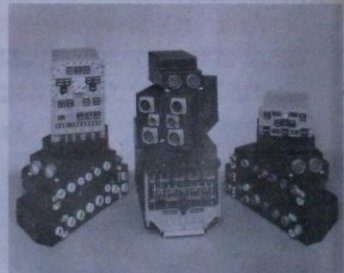
SCADC equipment

Within the fifteen months from receipt of contract ISD has almost completed flight trials on every aircraft type, well supported by our Atlanta facility. Test sets and support personnel have been fielded at many USAF and USN bases, enhancing the program, the Company's reputation and providing invaluable experience to the individuals concerned.

### Stores Management

In the early 1970s the Ministry of Defence placed a Study Contract on ISD to formulate a system for managing externally carried stores (weapons, tanks, pods, guns and carriers) on aircraft. The prime requirements of such a safety critical system are high integrity, extreme safety, and reliability. As a result the two seat Panavia Tornado is fitted with the world's most sophisticated SMS and this has been operating for a number of years for the RAF.

ISD continues to improve and modify this system as requirements are added and the system needs become more and more complex.



Tornado stores management system.

Currently the experience gained on the Tornado System is being applied to a new General Purpose range of SMS modules which can be configured to meet the requirements of a range of existing and new aircraft.

ISD has also won an opportunity to influence the future by being selected by the Ministry of Defence to coordinate the UK Industry Study into a new United States/United Kingdom Standard-Interface definition for aircraft stores.

### Helicopter Air Data

Instrument Systems Low Airspeed System (LASSIE) is a helicopter air data system especially suited to meet the tactical requirements of Army Aviation and close support operations. Using a unique swivelling pilot-static pressure probe located in the downwash, together with a temperature sensor, the

[www.rochesteravionicarchives.co.uk](http://www.rochesteravionicarchives.co.uk)



A group from ATE Division (Feb 1970) who were closely associated with the Nimrod Mk I ATE seen here in the background. NATE was one of the world's first digital computer controlled ATEs.

for Buccaneer, Lightning and VC10 aircraft. It was not all for purely electronic subjects. A Precision Pressure Controller had been developed by Precision Test Equipment Division in the early 1960s and was advertised in aviation journals in 1963 as being capable of automatically testing air data systems and instruments from production to flight line.

The Engineering Department had had its disappointment at the cancellation of F-111 softened by the award of contracts to study advanced test techniques. From these came designs for radio frequency sampling, function generators, sampling voltmeters and arithmetic units — fairly commonplace today, but 15 years ago, way in advance of the competition. These designs, together with the digital computer control of ATE confirmed the Division's leading position in the UK; at least two previously serious competitors left the ATE market at about this time.

In 1967 Elliott Automation was merged with English Electric

and a year later with GEC. With this latter merger EFA became a subsidiary of GEC — Marconi Electronics Limited and the family connection with Marconi Space & Defence Systems Limited was strengthened when MSDS used ATE Division's designs as the heart of their equipment which became widely used on Army (Clansman) and the Navy (Sea Dart and Torpedo) programmes.

A milestone in the Division's history was the successful bid in 1968 for the supply of Special Support Equipment associated with the Head Up Display on the American services A7 D/E aircraft. This milestone was also a hurdle because the first set of SSE to be designed, developed and delivered in a hectic 11 months which culminated in a specially chartered aircraft arriving in Dallas Texas with the equipment on 22nd August 1969. SSE was produced in large quantities and used around the world (and still is in use today) by the USAF, USN, National Air Guard and Greek Air Force. Representatives from ATED or ADD went abroad with the equipment during its early life when it quickly established a good name for reliability and availability. In those days a mean time between failure (MTBF) of nearly 300 hours during many thousand hours operation was a real achievement.

The COMPACT family of ATE was launched and presented to a press conference by Mr. Jack Patemen in the Royal Festival Hall on the 20th November 1973. Orders had already been received from other Divisions and from British European Airways who provided support for ATED at the press conference. Some interesting figures quoted by the BEA spokesman showed that the total investment in flight control system boxes alone, necessary if manual test equipment were to be used, would cost approximately \$2M. BEA had selected COMPACT to dramatically reduce these test times from 45 hours per box down to 4 hours and consequently cut the costs of spares. COMPACT is still in use with British Airways for their Tristar and BACI-II fleet, the two ATEs are running continuously 16 hours a day providing a very reliable service. Over the next few years COMPACT ATE in various shapes

and sizes was used to test a wide variety of subjects, analogue, digital and hybrid PCBs, modules and complete units using techniques in the frequency range from 'dc to daylight'. On the computer programming side the Division had built up unique experience in both executive software (Used to control the ATE system) and application software (programs associated with particular test subjects). This experience included the difficulties to be overcome in obtaining sufficiently true and relevant information from the manufacturers of test subjects so that test programs could be delivered with the hardware.

In April 1976 the RAF ordered further ATE from us for the Mark II Nimrod aircraft. This newer version of the original HS801 used the latest available digital equipment quite a lot of which was supplied by other Divisions at Rochester. This ATE, known as 'NATS II' — but not because of its powerful 'bite' (!) — tests over 20 different types of unit and diagnoses faults to card level. Similar versions of the same machine are used on the production lines of the prime equipment manufacturers.

The latest addition to ATED's family is COMPACT  $\alpha$  — conceived when foreign competition sold similar equipment within our own Company in late 1979. The gestation period was short — 8 months from go ahead to first demonstration — a real tribute to the hard work of the small development group. COMPACT  $\alpha$  is now becoming the standard ATE used throughout the Company and a dedicated team has been set up to promote its wider use in non military applications around the world. What the future holds we do not know but many prospective markets at home and abroad are being pursued at present. Signs of industrial recovery around the world and a growing emphasis on conventional defence systems augers well for a Division which, over the past 20 years, has overcome the problems of hard times — cancelled projects and both technically and financially difficult contracts — to become one of the leading military ATE centres in the world and now intending to get a similar stake in the professional ATE users market.



Low airspeed air data.

system can determine air data parameters in all axes under all flight conditions including through the hover.

ISD have already delivered 620 such systems to the Bell AH-1S Cobra programme. This system was the world's first production microprocessor based Air Data System.

Further developments of the techniques employed lead to the Helicopter Performance Indicating System which uses standard helicopter sensors. Pilots are able to input air data parameters for a remote site and obtain a prediction of the vehicle performance. Shaft torque, engine and rotor speeds



Helicopter performance monitoring.

along with air data parameters are processed within the digital computer. Also warnings of control and power limits, reduced performance, and unsafe manoeuvres, are available from the system.

#### Facilities

In addition to 'refining its products' ISD has been active in 'updating its facilities'.

To remain competitive the Division has to constantly improve its design, its production and quality standards, and at the same time produce a more rapid progression from the 'designers-thinking' to the 'finished-product'.

Computer terminals are no longer seen only in the computer section of the Engineering Department — Production, Quality Assurance, Drawing Office, Technical Publications and Commercial Departments are all acquiring these aids to remain competitively efficient.



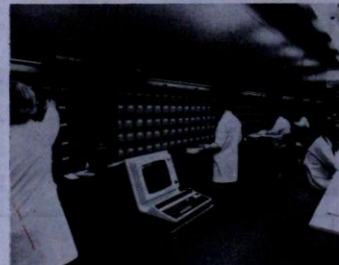
Computer aided design equipment.

ISD's Production Department has received considerable and necessary investment in its Stores, Assembly to Test and Inspection.

To satisfy the latest technical and quality requirements of our major customers new environmental test chambers have been installed.

Completed equipments from the Production Department are all given rigorous testing in these chambers to ensure, to

the customer, that he is receiving highly reliable and well proven equipment which of course is the keynote to a successful and continuing avionic engineering business.



ISD component stores.



Environmental test facility.

# RETIREMENTS

One by one, the original team which built up the Company, in the early days, lay down their tools and retire.

One such is **Doug Wright**, who retired from PSD (production) on 20th May.

Doug began his service in 1955 within the Aviation Division, working in the Fuel Flow Rig. This continued through the divisional changes and when AEID was formed Doug became Leading Hand on indicators and Transmitters, ultimately becoming a "king" among the "tweakers". It was not so much a matter of knowing what had to be done but of where to do it. After AEID merged to become ISD he retained his appointment and on the formation of PSD was allocated to them to carry on his work on indicators and Transmitters.

His many colleagues and friends wishing him well for a long and happy retirement subscribed to present him with a Radio Cassette Recorder, and Mr. M.G. Meakin (Production Manager - PSD) made the presentation.

In reply Doug Wright expressed his appreciation for having worked with such a grand bunch of people through the years, and his thanks for his gift, and many friendships made.

He is married, with one daughter, who recently made him a grandfather when she gave birth to a son. His main interests around the home are gardening, DIY, and reading (all types of literature).



Mr. M.G. Meakin (L) and Doug Wright. (A)

Mrs. **Doreen Cooper** of CACD Assembly Shop recently retired from her service after some 12 years.

She began in MACD Assembly Shop on 17 July 1961 and then went into FCD in 1970 when that Division was formed and at the split in 1980 moved into Phase III building as a member of the Assembly team of CACD.

To mark the occasion her fellow workers presented a bone china tea set and from her close friends she received a silver bowl and other gifts.



Doreen Cooper with her colleagues and close friends. (A)

A leading member of AS & RD Sales team has ceased his globe-trotting to take up retirement.

A former Wing Commander - RAF as a Pilot and special navigator for 22 years, **Stanley George Bagott** (Sales Manager - Military) came to the company in 1960; as a member of the TSF2 team in MAC, working with Bill Dicolle.

He joined AS & RD as Technical Service Manager, and in 1968 began his worldwide travels, which included America, South America, Europe and India.

To wish him well and to present on behalf of subscribers a carriage clock, Mr. W.H. Alexander in a happy mood made an appropriate speech.

His future activities are more localised, and his time will be taken up with gardening and carrying on with his love of local politics.



(L to R) Mr. Alexander, W.H. Bland and Stan Bagott. (A)



His memento card with appropriate design and inference. (A)

After a long and active working life, as well as service in the RAF, **Tom Mason** of AS & RD has now retired.

Starting his working life with Tilling-Stevens of Maidstone, he remained there until his war service in the RAF interrupted it. On demob he returned to Tilling-Stevens, working on Gear Boxes assembly. In 1954 he came to the Airport site, joining MER working on Submarine Detectors. Then he moved into Aviation Model Shop, and Engineering Laboratory. Later, became a member of MAC and later FID. Production in charge of Assembly Shop.

He responded to a call to join AS & R to work on a repair contract, and in 1965 went to Iowa, USA for instruction on Bendix items. He became involved in general work on his return, being considered of greater use on the bench with his wide knowledge and experience. He also served as a Shop Steward, for some time was a member of the Foreman's Association.

mind to steer it through the next decade or so, with the hope that it will grow and become, what I always dreamt it should be, a fundamental part of the communication system of the Company - and not just of Rochester.

I hand over with confidence to Francis Latter - and I ask you to support him and his efforts, as you have given me. But I would again ask all readers to regard it as OUR newspaper, and take an active part by offering reports, articles, ideas and news of each other. It cannot succeed without you!

As I lay down this work, I look back on a life of work and service to my fellow men and I rejoice in the many memories. Both grave and gay. And to all of you with whom I have had the privilege of working during the past 20½ years at Rochester, may I say a sincere thank you! It has been great to share the working day with you, you are a great bunch of folk, and I certainly "bless the day, I came this way" amid the snow and ice of February 1963.

May you all, as you are the Company, go from strength to strength.

J. Griffiths

**Jesse Griffiths** born of a canal boatman in the village of Braunston, Northants, was left fatherless at the age of four. On leaving school at age fourteen, joined BTH Co Ltd Rugby, and trained by them as an Electrical/Mechanical Engineer. During this period was subject to the provision of the 1920 Education Act, and attended Day Continuation School until 16 years.

Having completed his apprenticeship, during the depression years, he became an Insurance Agent for some two years, before returning to Engineering at Express Lift Co. Ltd, at Northampton.

At the age of 85 he and his wife made a trip to California. He has 3 sons, one of which follows in his fathers footsteps, being a Shop Steward at the site; and 3 grandchildren.

His hobbies are watching sport and gardening. Mr. Casey, Division Manager, AS & RD made a presentation of gifts to mark the retirement, with good wishes from all friends and colleagues.



Mr. Casey (L) Tom Mason (A).

For the past 23 years there has been a husband and wife team at the Rochester site.

The well known head of Reprographics is **Sid Clayton**, who, in 1960 was joined by his wife **Norma**, in the Flight Group. **Norma Clayton** commenced work in IND D/O Library, remaining there for some eight years to 1968, when she joined FID as an Administration Assistant.

On the amalgamation in 1970, with AEID she transferred in a like capacity to the reconstituted ISD, remaining within the on-site since that date.

To mark her farewell she received a special dress ring specially designed to match her earrings and pendant (her original ring of the set had been stolen, when her home was burgled a few weeks previously), together with a hair styling brush, and dainty nightdress and bouquet.

These were presented on behalf of the subscribers by Mr. Maurice Melville, Engineering Services Manager - ISD.

MAY News has been asked to convey her very sincere thanks to all those she came in contact with, during the years, which contributed to her enjoyment of the association and the forming of friendships, which are highly valued.

Now, in retirement, she hopes to indulge more frequently in her love of gardening, reading and walking.



Norma and Mr. M. Melville, with the presentation ring.

**Mr. R. Griffen**, Mechanical Inspector CACD Model Shop, retired on the 24th June. He was presented with a cheque from his friends and colleagues by Mr. G. Belcher, Technical Manager of CACD.

Mr. Griffen, known to everyone as Griff, has been with the Company for 26 years and recently received his 25 year long service award - see a recent issue of MAY News.

After a long illness he decided to take early retirement and will keep himself busy with his hobbies of clock making and model railways.

In order to become an effective engineer, he planned a course to gain more experience, and this led to many changes after about three years, and included Gears - design & manufacture, Automotive products - for mass production techniques, the Automobile industry - with Daimler Co. Coventry, where he remained throughout the war years. Electrical Motor manufacture, Capital Products, such as Cranes etc., General Sub-Contract Work, Motor Cycle Manufacture, where he reached his goal of becoming a Works Manager. Still in management producing Domestic Articles - vacuum cleaners and refrigerators. Came to Medway towns to Blaw-Knox, before eventually joining Elliott Bros. in 1963 as a Production Engineer.

Commencing in AEID, went to America in 1966 to study Fuel Gauging Systems for Hercules and Phantom. Setting up and running the unit for producing these items. In 1968 transferred to Fuse Division, and managed the Filter Section, until it came back to the main works. On the removal of Fuse to Portsmouth in 1972 joined FCD, until taking semi retirement and running the newspaper.

Married, with two sons and a daughter and five grandchildren.

Enjoys a game of Bowls and Chess, loves reading and meeting and helping people. Has always been interested and a worker in Politics, national and local, and a one time Parliamentary candidate. As a preacher, for over 50 years, is a well known and much sought after public speaker.

In a full and busy life, he pays tribute to his wife for 48 years without whose support and devotion he could not have achieved anything in his life. He feels that the award of BEM in January 1982 was as much of a tribute to her, as to himself.



**JESSE GRIFFITHS BEM**

It is just over six years, since I was first asked to do a feasibility study, for the production of a Company newspaper and after exhaustive enquiries and investigations my report was submitted together with conclusions and recommendations.

The report having been accepted I was invited to take on the task of initiating the project in line with the report. I accepted the invitation with some trepidation not being a journalist, or reporter, or able to do "art work". But, having for many years worked on the assumption that when asked to do a particular piece of work or effort I must agree, and do my best in that role, since they that issued the request had some confidence in my ability, and therefore it was up to me to justify that confidence.

After a cautious start, the project gathered momentum, and has culminated in the newspaper you know today, and after 5½ years I feel I can now safely leave it to other hands and

# 25 YEARS' SERVICE

**John Keeble**, Commercial Manager of IND, was presented with a carriage clock by Mr. P. Hearne, watched by Mr. R. Ruggles, Divisional Manager and Mr. J. Garstin, Sales Manager in the picture and by friends and colleagues. John joined the Company at Borehamwood following 12 years in REME, and for the first few years worked on the Blue Steel project with Aviation Division, and with IND following its formation in 1959 and the move to Rochester in 1961. From 1964 he was with inertial platform trials and development teams partly at Boscombe Down, and in 1968 when the Jaguar project commenced he moved to the team of which he became Project Manager in 1972. IND promoted him to Chief Engineer in 1974 and he has been in his present post for nearly five years, following a period as Divisional Controller.

John lives at Bredhurst where he is much involved in village affairs, and his hobby of gardening. A son and daughter are both at college.



(L to R) John Garstin, Sales Manager, John Keeble, Bob Ruggles, Divisional Manager, Peter Hearne, Director and General Manager. (A)

**Roger Massey**, Commercial Manager of CACD, was presented with his 25-year service award by Mr. C.R. Reese, Divisional Manager, on 1st June in the presence of a number of friends and colleagues. Mr. E. Hawley also brought the congratulations and good wishes of Management of the Company.

Roger started his career as a graduate trainee at Borehamwood, later moving to Rochester to join the Organisation and Methods team which then existed. In 1961 he became Budget Officer for all the Divisions engaged on defence contracts and then after a time in Sheet Metal Division, moved to the former FID (now incorporated into ISD) as Cost and Budget Officer then Divisional Controller. In 1976 he moved to FCD, now CACD, and has held his present appointment since 1979.

Roger has travelled to many countries on Company business on both sides of the Iron Curtain, and has represented our interests on a number of important advisory committees. In his spare moments, activities are in the nature of huntin', shootin',

and particularly fishin', and at one time he was to be heard broadcasting on Radio Medway.

He has two daughters and a son; his daughter Josie is a confidential secretary in AS & RD, the others are destined for university. His wife does some part time nursing.



Mr. E. Hawley, Josie, and Roger Massey after receiving his presentation carriage clock from Mr. C. Reese on the right. (A)

The presentation of the official memento of 25 years continuous service, was belatedly made earlier this year, to W.H. Bland, (Bill) of AS & R. This was originally due on 30th December 1982, since he started with the Company in 1957, as an Aviation Sales Engineer. This followed his discharge from the Royal Navy, where he served as Electrical Artificer. Three years later, in 1960, he became a member of the AS & R Division firstly as Sales Engineer, later on taking on duties as Sales and Service Manager, and now is the Sales Manager (Product Support Group).

A "globe trotter" of no mean order, Bill is in his element, when travelling particularly in the course of duty.

The gift selected, being a clock, was presented to him to mark his 25 years service, by Mr. G. Thomas, General Manager.



Bill Bland. (A)



John Higgins. (D)

**John Higgins** has completed 25 years with the Company although he has spent even more time at the factory with previous occupants of the site. He started his working life in the Butchers' trade, then joined Short Bros. in 1934, moving to Airport Works in 1936 working nights on metal processing. Five years in the Army followed largely as a despatch rider with the Royal Artillery and Signals, with service in the invasion campaign from Belgium through to Italy. In 1947 John came back to Rochester and the Swift and Swallow press shop, but the attractions of outdoor life drew him to a post on Isle of Grain refineries for five years. He then joined the old Central Maintenance Dept. at our present site, and after a short spell with Fishers arrived at the Flying School where for over 20 years his duties with works Engineering Services have helped keep everyone warm.

John's wife spent 15 years working in IND and TAC, his daughter also used to be in AS & R. Mr. S. Williams presented a wall-clock to mark this milestone in John's life, the next one he looks forward to is retirement when he plans to go to live with his daughter at Halstow and pursue his hobbies of do-it-yourself and gardening.

**Jim Carter**, ISD was educated at Chatham Technical School before joining the Company on 16th January, 1958, as a Prototype Wireman in Radio and Radar which later became Naval Weapons.

He moved to MAC Division on Production Control of TSR2 then having completed a Trainee Draughtsman course, joined MAC which became FCD after amalgamation with TAC.

Jim progressed to Design Draughtsman and eventually moved to ISD as a Design Engineer in November 1977. He has been an active member of the Company Athletic and Football Sections and of the Chatham Bowling Club and his hobbies include reading.

Married with two sons, aged 14 and 17 both attending the local Grammar School.



Jim Carter (2nd R.) with his canteen of cutlery. (A)

# Sports and social club round up

## Cricket Club

### Fixture list

#### 'A' Team

Sat August 6th	H v	Ullcombe
Sun August 7th	H v	Snodland Community
Sat August 13th	A v	Otforden
Sun August 14th	H v	Upchurch
Sun August 21st	A v	Cooling
Sat August 27th	A v	Medway Brewery
Sun August 28th	A v	Blue House Marden
Sat September 3rd	A v	Old Anchorians
Sun September 4th	H v	Medway Telephones
Sat September 10th	A v	Leybourne Village
Sun September 11th	A v	Ryarsh
Sat September 17th	H v	Hempstead (2.00pm)
Sun September 18th	H v	Dilton (2.00 pm)
Sat September 24th	H v	Cornthians (2.00pm)
Sat October 1st	H v	East Farleigh (1.30pm)
Sun October 2nd	v	BP (Kent)

#### 'B' Team

Sat August 6th	A v	Rainham
Sun August 7th	H v	East Sutton
Sat August 13th	H v	Chatham Nomads
Sun August 14th	H v	BP Sunbury
Sat August 20th	H v	Dartford Nomads
Sun August 21st	H v	Rainham
Sat August 27th	H v	Woolwich Telephones
Sun August 28th	A v	Loose
Mon August 29th	H v	Willow Brooke (11.30am)
Sat September 3rd	H v	Old Vives Lees
Sun September 4th	A v	Oakwood (2.00pm)
Sat September 10th	H v	Crusaders
Sun September 11th	H v	High Halstow (2.00pm)
Sat September 17th	H v	Maidstone Excetara (1.30pm)
Sun September 18th	H v	Addington (1.30pm)
Sat September 24th	H v	Maidstone Cavaliers (1.30pm)
Sun September 25th	H v	Sherwood (1.30pm)
Sat October 1st	H v	Taston (1.00pm)
Sun October 2nd	v	M.A.V.

## Golf Society

A Tri-site match, between Rochester vs Basildon vs Borehamwood was held on June 7th at Princes Golf Club, Sandwich.

Rochester acted as hosts on the occasion which was a 36 hole Stableford game, the best 12 from 13 scoring.

The overall result, from a well fought match, on a good sunny day, with a pleasant breeze on a really delightful course ended with the hosts, Rochester being the winners.

### Scores were:

Rochester	652 points
Borehamwood	646
Basildon	618

The individual winner was A. Kerridge of Borehamwood with 80 points.

### Rochester Team

P. Warburton (Team Captain)	ATED
M. Broome (3rd on day with 66 pts)	IND
R. Scriven	MASD
A. Gillett	IND
J. France	ISD
E. Worcester	ADD
C. Smith	ATED
R. Unsworth	ISD
A. Huggan	MASD
P. Fowler (2nd on day 67 points)	CACD
L. Pettman	ADD
S. Rands	ATED
M. Reeve	IND

An invitation was received to participate in a 9-hole sponsored stroke play competition at St. Mary's Island Golf Club, HM Naval Base, Chatham.

The competition was to raise funds for the King George's fund for sailors.

The course, established in 1976, consists of 9 short holes with a total length of 799 yds.

Together with M.A.V.P Kent Golf Society, some 12/13 other teams entered.

Played on 17th June 1983, at 5.00 pm, a delightful evening provided a backdrop of pleasure to an enjoyable competition.

The winners of the competitions were M.A.V.P Golf Society who received their trophy from the Captain of HMS Pembroke. This was an oil painting of the Battle of Trafalgar, and is to be hung in the bar lounge of the canteen.

M.A.V.P Golf Society also provided the winner of the individual competition with a score of 27 (par for the course). The winner being Peter Baker, Cost & Budget officer of ISD. His prize was a smaller replica of the picture 'Battle of Trafalgar'.

The M.A.V.P Golf Society Team comprised:  
Non-playing Captain of Society Fred Nye ADD  
Team Captain Alan Ward ADD  
Lionel Pettman ADD  
Bob Insworth ISD  
Peter Baker ISD  
Paul Childs ISD  
Dave Golding MASD

Five best of the six scores to count. Lowest average score to win. The individual with the lowest gross score to win the individual prizes.

The programme, consisted of:  
(1) Group of negro spirituals  
(2) Arias 'Jesu, joy of mans desiring and Brother James' air.  
(3) Sea Shanties, Eliza Jane, Shenandoah, and Whiskey Johnny.  
(4) Two anthems.  
(5) Songs from the shows, with a piano solo leading selections from 'My Fair Lady', in which the audience joined wholeheartedly.

## '65 Club

### Retired Personnel

The June meeting was held at Featherby Road, for the last time at that venue. In spite of difficulties due to the failure of the coach to pick up members, a goodly company assembled.

After the usual business meeting, details of the outing on July 6th to Bognor Regis and Arundel was announced, and pick up points arranged.

Greetings were expressed to new members, and congratulations on Birthdays and Wedding anniversaries. The entertainment for the evening was provided by the Choir of Aylesford Parish Church, under the vicar of Aylesford, Rev. Arthur Heathcote (former Industrial Chaplain).

The programme, consisted of:  
(1) Group of negro spirituals  
(2) Arias 'Jesu, joy of mans desiring and Brother James' air.  
(3) Sea Shanties, Eliza Jane, Shenandoah, and Whiskey Johnny.  
(4) Two anthems.  
(5) Songs from the shows, with a piano solo leading selections from 'My Fair Lady', in which the audience joined wholeheartedly.

# Sports and social club round up

## Football

The Inter-Divisional league this year had a new comer when BP entered a team.

The rivalry was friendly, though strong at times and each team played well.

The final took place recently, when CMS (winners in 1982) were opposed by BP who have the advantage of calling upon about 6 Kent County League players.

Played at Four Wents ground, Hoo St. Werburgh, the game was played at a good work rate and swung from end to end, giving the spectators a truly entertaining evening. There was nothing to choose between the teams, and at the end of 90 mins it was all square at 3-3. Extra time was played, and CMS managed to squeeze their nose in front, running out eventual winners at 5-4.

Some 200/300 people were present, and the remarks heard later, considered it to be the best final ever played. For CMS Kenny Rogers scored a hat-trick of goals. It was a fine evening and for CMS was a famous victory.

On their way to the final, CMS met and defeated ISD (7-1) Works Engineering (15-1) and MASD (8-1) but for Barry Hodge, trainer and manager of CMS, it was a disappointing contest, as he was kept out of the side, due to injury.



The Victorious CMS team with Barry Hodge on extreme right. (A)



Kenny Rogers (Captain CMS) receiving the trophy from Mr. Peter Bird. (A)

## Sailing Section

### Marconi Sailing Match

The annual dinghy races between Rochester and the Marconi Sailing Club took place on 4th June 1983, on the Blackwater. This year 12 boats competed for the Colwyn Stone Challenge Trophy in hot sunny weather with a force 2 wind dropping to zero.

The first race was held in reasonable wind and D Harper (MSC) in a Hornet got away to a good start up wind followed by Peter Belcher and Richard Stone (MAV) in Lasers. K. Webb (MSC) and Gordon Belcher (MAV) in Enterprizes were at the back of the fleet. The Fitzgeralds (MAV) in a Condor sailed in all sorts of directions but found it difficult to get going, whilst the Hornet of Tim Gausden (MAV) and the Fireball of Dennis Butcher (MAV) found the wind too light to be at their best.

On the second lap Peter Belcher bore away on a header out into the favourable tide only to see Richard Stone lifted and catch up the deficit. Down wind Richard overtook Peter, but the MSC Hornet was well away in front.

The results were:

- |                     |                       |
|---------------------|-----------------------|
| 1. D. Harper MSC    | 7. G. Belcher MAV     |
| 2. R. Stone MAV     | 8. D. Butcher MAV     |
| 3. D. Webb MSC      | 9. T. Gausden MAV     |
| 4. P. Belcher MAV   | 10. A. Mack MSC       |
| 5. R. Moseley MSC   | 11. M. Fitzgerald MAV |
| 6. R. Greyyoose MSC | 12. Palmer MSC        |

The second race started in reasonable wind and again the MSC Hornet got a good start to lead at the windward mark and all seemed lost for Rochester. However, the wind died and as the boats tried to run against the tide all the boats bunched up. The Fitzgeralds in the Condor assessed the situation correctly and sailed a great circle towards the wind and out of the tide to finish first. The Lasers followed the Condor and by going inshore out of the tide Peter Belcher kept moving to finish second with Richard Stone fourth. K. Webb in the MSC Enterprize also kept in the wind to be third, whilst Ron Greyyoose MSC (Solo) who had looked to be a winner at one stage, lost the wind and drifted to the finish.

Those who had not gone inshore were left fighting a losing battle against the tide and had to retire.

The results were:

- |                      |                     |
|----------------------|---------------------|
| 1. M. Fitzgerald MAV | 4. P. Moseley MSC   |
| 2. P. Belcher MAV    | 5. R. Stone MAV     |
| 3. K. Webb MSC       | 6. R. Greyyoose MSC |

This made Peter Belcher the overall winner with K. Webb second and Richard Stone third.

Jack Pateman, the MSC President, had a bad weekend, not only did he lose a daughter by marriage, but he also lost a weekends sailing. However, he came to the Blackwater to see MAV's first overall win after some ten years and their third successive Colwyn Stone Trophy win. Joan Stone presented the trophy.

In accordance with the time honoured tradition, the cruising men used their motors to beat the tide and get to the Club for opening time. Food and a social evening had been arranged for the visitors and a very good time was had by all. The cruisers slipped their moorings at 9:30 Sunday morning in very pleasant sailing weather but unfortunately the conditions gradually worsened when the boats were off Garrison Point — Sheerness — as extremely rough and unpleasant with wind coming later as being force 7 gusting 8 with six foot waves.

Thanks also to the Marconi Club for their hospitality in hosting the occasion — the return visit to the Marconi Club to MAV/BP Club is planned for the 13th August.

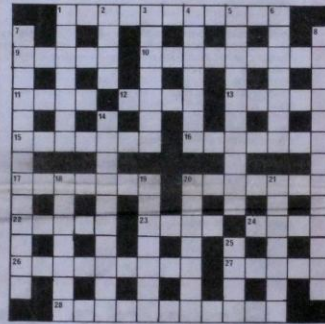


The cards winner Mr Rudge with his trophy.



The AS & R victors of the cards league.

## CROSSWORD No. 53



### ACROSS

- Pop song writer's mecca. (3,3,5)
- A window projection, college. (5)
- To forfeit honour, prestige. (4,5)
- Oxford's River. (4)
- Bill of fare. (4)
- Without a settled place. (5)
- Tapering flag. (7)
- The stars at night as gleaming. (7)
- It has to be in the mind. (7)
- Harvesting together. (7)
- It will please the palate. (5)
- Bill of fare. (4)
- Cheesy youngster. (4)
- The angler's quarry. (4)
- Recital of connected events. (9)
- The actor's unscripted word. (5)
- Controlling impulses of sensation. (5,6)

### DOWN

- What the tutor gives. (7)
- Girls name in short, ask Charles. (4)
- Sickness. (7)
- An attack, physical or verbal. (7)
- Holder of certificate from examining body. (10)
- Eastern lady veil. (7)
- Surely 'tis done with water! (2,3,5)
- Not the ideal succession, could smell. (4,4,5)
- Light coloured egotism, especially of ladies. (5,4)
- Not a winner, but in the event. (4,3)
- Going back, retreating water. (3,4)
- The males communication signal. (4,3)
- Large stately building maybe. (7)
- Grain prepared for brewing. (4)

### Solution to Crossword No. 52

#### ACROSS

- Razor Bill; 6. Occur; 9. Frost; 10. In between; 11. Riot Act; 12. Lampoon; 14. Aristocrat; 15. Ship; 18. Oats; 19. Jump the gun; 23. Yorkist; 25. Scratch; 26. Made a pile; 27. Aloha; 28. Glory; 29. Dismember.

#### DOWN

- Reformatory; 2. Zoologist; 3. Retracts; 4. Idiots; 5. Lobelia; 6. On time; 7. Crudo; 8. Run; 13. Nip in the air; 16. Night club; 17. Shortage; 20. Unrised; 21. Posters; 22. Bigamy; 24. Rodeo; 28. Mag.

Photographs taken by the Staff Photographers will be acknowledged in the following way: (A) Alan Keats; (C) Nancy Bullock; (D) Albert Marshall.

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## Diary Dates

### Four Wents, Hoo St. Werburgh

- Saturday 30th July, 8-11pm**  
Arthur Brown Trio  
Admission 25p from Int. phone 2217 or Bar
- Friday, 19th August, 7-10pm**  
Childrens Disco 'Tip Top Sounds'  
Admission 25p at Ballroom Door
- Saturday 20th August**  
Parlour Derby Evening, Betting Units 20p each.
- Saturday 27th August, 8-11pm**  
Bank Holiday Dance with 'Zoom'  
Admission 25p from Bar or Ballroom Door
- Friday 9th September**  
Childrens Disco 'Tip Top Sounds'  
Admission 25p at Ballroom Door
- Friday 18th September, 8-11pm**  
Family Night David Forbes at the Hammond Organ  
Party games for children. Admission Free
- Saturday 17th September, 8-11pm**  
Discotheque with The AA Disco  
Admission 25p at door
- Saturday 24th September**  
Parlour Derby Evening, Betting units 20p each

## NOTICE

M.AV/BP (Kent) Club, Four Wents, Bell Lane, Hoo  
The Management Committee wish to inform all members that the Squash Courts will be Closed for maintenance as below:  
No. 1 Court 1st to 7th August 1983  
No. 2 Court 8th to 12th August 1983

## Cards & Darts Section

The annual prize giving evening was held on 30th May 1983 at the Clubhouse, Four Wents, when Eric Bristow the Darts Champion was the guest of honour and also the presenter of the awards. During the evening the honoured guest played 14 games against representatives of the participating league teams, each game of 1001 up and he was unbeaten at the end.



Eric Bristow with the individual Darts Champion, Andy Hughan MASD.



Ted Fabrice of AS & R receives his individual trophy.