

## MORE EXPORTS WON AND IN PROSPECT

### MASD

has won a contract to update the sonar system in the Royal Navy's fleet of Sea King MK5 Antisubmarine (ASW) helicopters. The contract, including the supply of new sonar systems, could be worth as much as £43 million.

The update will improve the operational and submarine detection capabilities of the helicopter, increase its efficiency and reduce the sonar operator's workload, by permitting more efficient manipulation and display of information.

The enhanced system, known as AQS-902G-DS, will process information received both from free sonobuoys and a dipping sonar, presenting integrated information on a Cathode Ray Tube (CRT) display.

MASD will modify 112 AQS-902C systems to AQS-902G-DS standard, and supply an additional 31 AQS-902G-DS to the Royal Navy.

At present, the Sea King is fitted with two 'stand alone' systems, the Plessey 195 dipping sonar system and the AQS-902C sonobuoy processing system. The latter was developed and manufactured by GEC Avionics, and has proven highly successful during several years of operational service. A particular feature of the update is the replacement of the original analogue computing section of the Plessey 195 with the digital

processing of the AQS-902 system.

The new CRT display replaces the current AQS-902 Hard Copy display improving the quality and quantity of information which can be presented. Among the range of display options, an Acoustic Localisation Plot will provide a tactical plot of range and bearing information derived from the sonobuoys and current and predicted target position and track. This gives a new facility for evaluating the

inherently complex acoustic data before it is passed to the observer's tactical plot.

AQS-902 systems are fitted in numerous anti-submarine aircraft and helicopters worldwide, and have been fully proven in Royal Navy service since 1980, in the Sea King Mk 5. Over 150 such systems have been delivered and a further 75 are on order in addition to the contract described above.

Divisional Manager Laurie Hampson says "Principally

because of information passed over by the American spies, the Walker family, the Soviet submarine threat has grown considerably over the last few years. The enhanced capabilities which our new system will bring to the RN will help to overcome this problem. AQS-902 will be the first in-service system in the West which combines the full multi-sonobuoy processing capability with the processing of data from dipping sonar. MASD is still the best in the West".

### FCD,

in conjunction with NWL Control Systems of Kalamazoo, Michigan, USA, has been selected by Boeing to compete for the primary flight control actuators and associated electronics for Boeing's new passenger aircraft, the 7J7.

GEC Avionics, already one of the two finalists for the primary flight control computers, is the only contractor selected to bid for both systems. GEC Avionics is also the only British company selected for either of these critical elements in the aircraft's fly-by-wire system.

NWL will be prime contractor responsible for the actuators, with Flight Controls Division responsible for the actuator control electronics. This is the interface between the flight control computers

and the actuators driving the aircraft's control surfaces.

In its 7J7 flight control computer design the company is introducing new concepts aimed at increasing reliability operations, concepts which are being carried forward into the design of the actuator electronics.

NWL Control Systems is a prominent US designer and manufacturer of hydraulic, electro-hydraulic and electro-mechanical primary flight control systems. The company is a technology leader in the latest fly-by-wire con-

trols and is involved in over 20 programmes on both civil and military aircraft. These include the Boeing 757 and 767, McDonnell Douglas DC8 and DC9 and every US high performance fighter aircraft built in the last decade.

Divisional Manager Brian Tucker says "FCD's involvement in this programme, together with its partners in CACD, PCSD and ASD (Borehamwood) is very exciting, and hopefully will open up many other opportunities for us".



#### STOP PRESS

Airship Industrie to build prototype airship for US Navy. FCD's Fly-by-light control system is an essential feature of this 400-ft giant.

### Upstairs Restaurant & Bar Lounge

Reports are being received that after one or two teething troubles, all is going well at the newly opened Restaurant - some nights have seen disappointed clients unable to get past a full house of bookings. But can we go on referring to just the "Upstairs Restaurant and Bar Lounge"? Rather a mouthful of the wrong sort!

**GAv News announces a Competition for Club members, to choose a name for the Restaurant.** The prize will be Dinner for two persons, with wine, on a chosen day.

Please send your entry in writing, by internal mail, to reach the Editor by July 6. Give your name, division/ dept., and club membership number for validation - so we know where to find the lucky winner. More than one entry per member can be accepted.



### ADD's Latest Style

This picture is of the Helmet Mounted Display which ADD has delivered to General Dynamics, Fort Worth, as part of the 'FALCON EYE' programme.

The helmet is capable of displaying TV-like images as well as symbols, and also incorporates helmet position sensors.

### CACD,

on 28 May, completed formal Customer Acceptance Tests on the first Yaw Damper Computer, witnessed by the customer McDonnell Douglas. This computer will be fitted to the new United States Navy trainer aircraft, the T-45A.

Program Manager John Pointer says that "this was a notable achievement in terms of very tight time scales required for delivery. From contract award in August '86, the new design, manufacture, commissioning, burn-in and formal acceptance was completed

in nine and a half months".

During the development phase seven units will be built, three deliverable, two for qualification tests and two for Reliability Testing. First flight of the T-45A is scheduled for mid December 1987. Production is scheduled for late 1988, and US Navy requirements alone for the T-45A, due to enter service in 1990, exceed 300 aircraft with the total production quantity including exports anticipated to be 1000 aircraft.

The order is particularly significant for GEC Avionics, being the first it has won for production flight control equipment for a United States combat aircraft.



### Haskett Trophy for Engineering Achievement 1987

Bernard O'Kane, Consultant to the Board; Prof. John Shepherd, Technical Director; Paul Rayner, Managing Director, GEC Computers Ltd; Peter Smith, Marketing Liaison Engineer, and Geoff Howell, Director of Research, Civil Aviation Authority.

The result this year, like last year, is a tie and two equal first prizes are being awarded.

The two 'equal first' winning entries are: **Automated**

**Powerplant Testing Unit** submitted by **Tony Fordham**, Project Leader, and **Adrian Taylor**, Senior Software Engineer, from Powerplant Systems Division; also **AD3500 Communications System** submitted by **Keith Norton**, Principal Engineer, and **John Little**, Principal Engineer, from Airadio Products Division, Basildon.

The 11 entries were all of a high standard and the two winning entry teams will each

receive a prize of £1,200.

An outstanding runner-up award of £500 is also being made to **David Puleston** of ADD for his entry **New Displays for T'A - Total Terrain Avionics**.

Mr. Alexander has expressed the Company's appreciation for the effort put in by all the entrants and his congratulations to Mr. Fordham and Mr. Taylor of PSD and Mr. Norton and Mr. Little of APD.



### A New Dimension in Circuit Technology

GSD has a new solid state miniature gyroscope for this year's Formula 1 Grand Prix circuits.

This new gyro forms part of the Active Suspension system developed by Cranfield Institute of Technology, with Lotus Engineering, for Team Lotus racing cars. After extensive qualification

and proving, the system was raced at Monaco on May 31. Ayrton Senna took first place, leading the rest of the field by more than 30 seconds as he crossed the finishing line.

Well done that Camel with its active suspension and GSD's new Yaw Rate Sensor.

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 Volunteers should offer their service through Divisional Administration Officers or direct to the Editor.

## APPRENTICE DISCOS

The Apprentices and Trainees from the Technical Training Centre, Hopewell Drive, held their first disco this year on Friday 13 February at the Social Club. This proved a great success with nearly a full house in attendance. From the proceeds of the disco, the lads and lasses who attended donated the sum of £90 to the Elms Medical Centre, at Hoo St. Werburgh, in order to help towards purchasing needed equipment for the Medical Centre.

The second disco was held on Saturday 25 April at the same venue. From the takings a donation of £50 was given to Canada House Maternity Hospital, towards

the buying of a special piece of equipment to help diagnose in a non-invasive manner a common but easily treated blood condition in the new-born infants.

During this disco, a free draw was made with the 4 lucky winners having a fully paid meal at our new Social Club restaurant.

Hugh McArthur would like to publicly thank the members of the Management Committee for their assistance, and the Management Committee for the use of the Club. Also special thanks to Howard Twine (1st year Apprentice) for bringing his disco, and to all who attended for their support.

## Holiday Time

### Pickfords Travel

## AUSTRALIAN/NEW ZEALAND EVENING

Pickfords Travel will be holding an Australian/New Zealand evening at the Crest Hotel, Chatham on Tuesday 23rd June, 1987 between 6.30 pm and 9.30 pm.

Admission is free. There will be a video show and the various airlines, tour operators, tourist offices and car hire companies who are associated with Australian and New Zealand holidays will be present.

## Editor's Message Board

### Dear Editor,

Congratulations to all concerned with the new GAV/BP restaurant.

I would like to take this opportunity to express my thanks for a most enjoyable evening spent dining.

The restaurant is beautifully furnished and decorated, and the food and service was first class, and represented very good value for money.

As they say in the trade - "My compliments to the Chef".

Colin Whitehead



'Appears to have rocked himself to sleep, Harry!'

Hoohah for the new traffic flow scheme! My car suspension now has only eleven ramps to endure when coming in to work each day instead of the previous thirteen. What is the secret of having them in pairs?

Bert Kennett, PSD.



## The Royal Aeronautical Society

### Medway Branch

#### LECTURE PROGRAMME 1987/88

All meetings will take place in the Main Canteen of GEC Avionics Ltd, Airport Works at 7.00 pm.

#### 1987

- 16 Sep Film Show - Jim Ashton
- 21 Oct Blue Steel, Hotel and Beyond - Professor J. Allen
- 18 Nov Fire and Rescue - Central Training Establishment RAF Manston
- 16 Dec Aviation Medicine - Air Commodore J. Ernsting RAF

#### 1988

- 20 Jan Navigation by Stealth - Mr D Hussey
- 17 Feb TBA
- 16 Mar Guild of Aviation Artists - By a prominent member of the Guild
- 20 Apr An Edwardian Lady Parachutist - Miss Molly Sedgewick
- 18 May AGM



Brenda Richardson, Senior Midwife at Canada House, came to Hopewell Drive to receive the £50 donation. Here she is seen with Barry Wallington, Superintendent, Hugh McArthur, Senior Instructor, and Tony Smith and Frances Simpson, 1st year Electronic Technician Apprentices. (B)

## Congratulations in Quadruplicate

Darran Hibbert, who has just completed his Craft Apprenticeship and is operating an NC machine in CMS, achieved the unusually large number of four training modules completed under the EITB scheme - even three is considered good!

Here, John Spinks, General Manager, presents Darran with the EITB certificates watched by CMS Manager Peter Burrows and colleagues. (A)



## ISD BOWLS ON "THE UP"

April saw the completion of the 5th Season of the ISD indoor bowls competition.

This year eight teams have played a full league tournament between October and April at the Riverside Indoor Bowling Centre. The standard of play has improved enormously over the last five years (not difficult) as more teams have entered the competition. Next year the increased demand for team entries will probably necessitate a two league system.

In this year's games, in which some 40 members of ISD have played, many games were decided by a single point, a speciality of the "Buying Team". Alan Briggs still insists on bowling with square woods and Sarah Glover, the only lady

player this year, will welcome the entry of an all-ladies team next season.

On behalf of all ISD players a present of a Silver Tankard was made to Jim Carter in appreciation of his efforts in organising the matches over the last five years. Also John Colston, on leaving ISD to become an Assistant General Manager in GAV, presented the Division with its own permanent bowls trophy. It is believed that this generous gesture was made in an attempt to be invited back to play next year!

The picture shows last year's winning Captain, Joe Southworth, reluctantly parting with the cup to this year's winning team: Irvin Gray, John Colston, Bob Unsworth and Chris Woods.



Left to right: Irvin Gray, Joe Southworth, John Colston, Bob Unsworth and Chris Wood.

# RETIREMENT OF GLYN THOMAS

37 years with the company or its predecessors have ended with the retirement of Glyn Thomas, General Manager since 1978. Bill Alexander, both at a formal presentation and later at an informal gathering, paid tribute to Glyn's career which started at Borehamwood, where he was Design Engineer and later Chief Electronic Designer in the Aviation Division. Company Design Consultant Staff Ellis was 'opposite' as Chief Mechanical Designer.

The next step was as MACD's Chief Designer, Aircraft Controls - at the time when Bill Alexander was Divisional Manager, then in 1963 Glyn moved onto the Production side, first as Chief Production Engineer

then Production Manager, MACD. 1967 brought a change, to ATED as Assistant to the Divisional Manager and in 1969 Glyn became DM in his own right, in AS&RD which then began a big build up as the concepts of Support and Service became ever more important. In 1975 he was appointed Assistant General Manager in charge of company services, and in 1978 General Manager with special involvement with GAV Inc's new Atlanta factory, and new buildings and layouts at Rochester. Mr. Alexander referred particularly to Glyn's happy disposition and contribution to teamwork.

This latter became very important in the last few

years as Glyn built up the company's relationships with the local community; the climax to which came with the 5 outstanding years which he served as founder member and Chairman of the Medway Enterprise Agency. It was for his services to MEA and its success that Glyn was awarded the MBE in the 1986 New Year's Honours list. The MEA themselves gave a retirement dinner and presentation to mark his efforts, which have resulted in the creation of over 2800 new jobs following the industrial and dockyard closures of recent years. Glyn has also been Chairman of the Industrial Division and a main board member of the Medway and Gillingham Chamber of Commerce.



With so much to remember, Glyn now looks forward to enjoying his retirement, making use of the d-i-y tools given by his friends and

colleagues, checking the time by his presentation watch, and spending much more time on the boat he keeps on the Norfolk Broads.

He will also remember the great number of people who came to honour him and bid him farewell on his last day at Rochester.

## GEC AVIONICS (ROCHESTER) LONG SERVICE ASSOCIATION

The following new members have been welcomed into the association recently.

G. Cooper	CACD	M.G. Meakin	PSD
T.P. Gilbert	AS&RD	T.J. Felton	ATE
E. Barham	AS&RD	R.E. Hawkins	QD
D.A. Thompson	FCD	G.E. Marriott	GSD
R.F. Benjamin	GSD	D.T. Brown	AS&RD
E.J. Jacobs	FCD	T. Green	PSD
B.P. Gotting	ADD	F.A.J. Peirce	ADD
L.C. Smithers	AS&RD	D.A. Ruddlesden	AS&RD
S. Lawson	ATE	Miss M.N. Scott	ISD
J. Pickford	FARL	P.M. Hatcher	GSD
F.J. Crewe	MASD	P.H.J. McCormack	CACD

**ANNUAL GENERAL MEETING**  
FRIDAY 26th JUNE 1987  
AT 7.00 pm  
LOUNGE BAR - MAIN CANTEEN

## GLIDING AT LASHAM AGAIN

The GEC Avionics National Gliding Championships, to be held at Lasham Airfield in Hampshire from 20 to 28 June, is one of the first major events for British pilots since the World Championships in Australia earlier this year, which produced a British world champion, Brian Spreckley, the first since George Lee's spectacular "3 in a row" wins in 1976, 79 and 81.

The British Gliding Association has officially approved the title "The GEC Avionics

National Gliding Championships" and has again endorsed the choice of theme, which is "Excellence in Aeronautics". Organised by the Lasham Gliding Centre the Championships will determine the national champion in the Open Class.

Throughout the week of the Championships, GEC Avionics and Lasham Gliding Centre staff will maintain a results service for the press and are making available facilities for them and for invited guests of the company. This will include



Preparation time at the 1985 GEC Avionics National Gliding Championship at Lasham.

opportunities to experience gliding, and to meet members of the team and the large number of experts involved in the interesting task of weather forecasting, briefings, launching, communications, and the other myriad aspects of running a national gliding competition. The GEC Avionics Championships, at which Britain's top glider pilots will be competing, has earned a reputation for keen competition,

stimulated by this sponsorship from within the aviation industry.

At the end of the Championships, the prizes will be presented by Dr. Geoffrey Pope, Director Royal Aircraft Establishment. They include the GEC Avionics Cup and the GEC Avionics Trophy, both for high-performance, soaring, which are competed for in perpetuity. There will also be daily prizes.

## PCSD WIN PRESTIGIOUS POWER SUPPLY AWARD

Power Conversion Systems Division at Nailsea are the proud winners of a TOBIE (Technical Or Business Innovations In Electronics) award which they won in stiff competition with STC Power Components and Coutant Electronics Limited. The award, "The Power Sources and Supplies Award of the Year" was for achievement in power sources and supplies during 1986 and the award was for the business generated by the SCADC Power Supply module.

The announcement and presentation was made at the British Electronic Week Ball during the BEW Exhibition which was staged at Olympia on 28, 29, 30 April. PCSD's selection as winner was determined by total votes cast by readers of Electronic Times during the early part of 1987.

The awards are copyright of Evan Steadman Services Ltd., organisers of the British Electronics Week. They are sponsored by Morgan Grampian, publishers of Electronic Times.

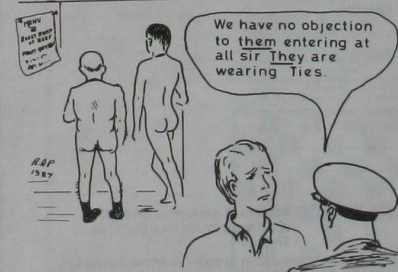


Our picture shows the proud members of the successful Standard Central Air Data Computer Power Supply Unit team admiring the award which will be retained by the Division.

L - R Front: Rob Bessant, Production Operative; Sheila McCall, Production Operative; Phil Lowrie, Test Technician.

L - R Standing: Ray Addicott, Chief Draughtsman; John Charters, Snr QA Engineer; John Burge, Snr Production Engineer; Keith Bailey, Project Manager; Peter Harvey, Product Manager; Len Leach, Principal Engineer.

GAV / BP RESTAURANT



**GEC AVIONICS  
24th INTER-DIVISIONAL**

# ANNUAL SPORTS DAY

**SATURDAY  
11th JULY**

COMMENCING AT 1.30 p.m.

AT THE DEANSGATE RIDGE  
SPORTS COMPLEX – HOO

## EVENTS

Ladles	Gents
Javelin	Javelin
Discus	Discus
Shot	Shot
High Jump	High Jump
Long Jump	Long Jump
100 Metres	100 Metres
800 Metres	200 Metres
4 x 100 Metres	400 Metres
	800 Metres
	1500 Metres
	4 x 100 Metres
	1500 Metres Walk
	Tug-of-War (6 Man Team)
Girls	Boys
100 Metres – Age 10 to 12 Years at 1.9.87	100 Metres – Age 10 to 12 Years at 1.9.87
100 Metres – Age 13 to 14 Years at 1.9.87	400 Metres – Age 13 to 14 Years at 1.9.87
100 Metres – Age 15 to 16 Years at 1.9.87	800 Metres – Age 15 to 16 Years at 1.9.87
<b>Veterans Handicap</b>	100 Metres Veterans Handicap (date of birth required)

Competitors please note that the competition starts at 1.30 p.m. sharp

Closing date for entries – **Wednesday 1st July**  
Entrants should report to Recorder's Tent by 1.00 p.m.

## ENTRY FORM

(Please use separate form for each competitor)

Please enter my name for the undermentioned events:

Mr/Mrs/Miss .....

Division .....

Events .....

PLEASE NOTE: Families of employees are eligible to compete for the Inter-Divisional Trophy.

Please return entry form to your Divisional Sports Day Captain or J.M. Collins, Social Club Office.

## ATED BEAT THEM ALL!

ATED Division's Footballers were impressive first time winners of the ELECTRONICS WEEKLY IMPULSE ELECTRONICS SIX-A-SIDE FOOTBALL TOURNAMENT held on Queens Park Rangers controversial plastic pitch at Loftus Road Stadium on Sunday 26th April.

The tournament attracted eighty teams nationwide from the electronics industry and competition was as one would expect very fierce. With only twenty teams able to make the finals it was necessary for there to be Qualifying Rounds and ATED were drawn to battle with three other teams for a much sought after place at Loftus Road. Arsenal Football Club's Highbury JVC indoor stadium was the venue and ATED kicked off with a 2-0 victory over Venture Technology. This was followed up by a 1-0 win over Camtec and a 0-0 draw with Enclosure Technology Ltd to clinch their tickets.

The seven players (with six to play) that took part in the Qualifying Round were Mike Gwynne, Phil Spice (Captain), John Michael, Darren Tilley (manager), Steve Malone, Alan Smith and Peter Elsdon. For the finals Alf Hanna replaced Elsdon who was engaged playing in the Kent Messenger Tennis Doubles final on the same day (talented lot these ATED guys).

At Loftus Road, players gained first hand experience of the plastic turf which has gained much criticism from the footballing world, and indeed several are still nursing their wounds mainly caused by friction when sliding along the plastic surface. Still, ignoring the injuries it must have been a thrill for the twenty teams to play on a First Division ground, indeed it would not have been possible had the pitch been grass: one advantage of an all-weather surface!

Weather was perfect with a blazing sun to contend with as well as the opposition all keen to ensure their names would be first on the new trophy.

In their opening game ATED comfortably beat Impulse Electronics 3-0 but there was still a long way to go with another three games plus a semi-final before a place in the coveted final was earned.

Klippon Microsystems were defeated 2-0, Ericsson (Portslade) held our lads to a goalless draw, followed by a solitary goal victory over Plessey Marine (Production Control) which earned us a place in the semi-finals.

ATED's opponents in the semi-final were Lynwood who were considered by many to be the favourites to win the tournament. In what proved to be the hardest game yet for the ATED team, Lynwood were finally over-



Back row l-r:  
Alf Hanna, Engineering Dept.; Phil Spice, Cost & Budget; Alan Smith, Engineering Dept.; John Michel, Trainee Cost & Budget;  
Front Row l-r:  
Steve Malone, Engineering Dept.; Mike Gwynne, Engineering Dept.; Darren Killey, Engineering Dept.; Peter Elsdon, Contracts Dept.

come and our 1-0 win meant a place in the final against Cirkitt Distribution.

In a hard fought final both teams, tired by their all day efforts, were unable to score and at full time it was 0-0 with penalty kicks to decide the outright winner. Thankfully ATED finally won the day 3-2 and the handsome trophy which went with it. All the players received replica trophies which will no doubt

take pride of place on their mantel-pieces.

It would be unfair to single out any one player of the team as all played their hearts out; however, special mention could be made of goalkeeper Mike Gwynne who during both the Qualifying Rounds and Finals did not concede a goal and Alan Smith who was the principal goalscorer of the team.

Peter Elsdon

## Training for Performance

Training For Performance was the theme of an open day held by Training Department to illustrate the important link between the development of individual abilities, through training, and company performance. The open day,

which took place on 28 April at the Company Training Centre, Hopewell Drive, put on view to line managers all the components of the Rochester Establishment's training provision, in order to publicise the available train-

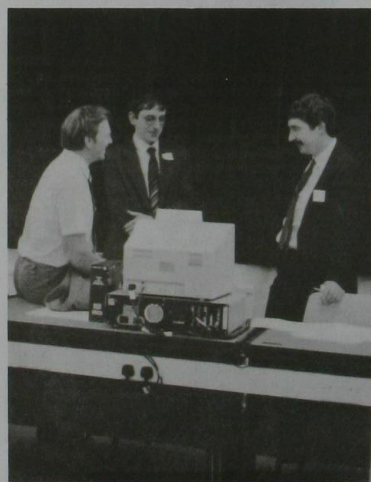
ing resources. Managers were invited to make comments and suggestions which will enable training staff to further develop the existing training provision.

Over 100 people visited the Training Centre during the course of the day, including members of GAV management and senior management representatives from all Rochester divisions. The visitors were given the opportunity to visit both classroom and exhibition areas. Initial trainees continued with their normal studies in machine shop skills, electronics, wiring and computing whilst visitors observed and discussed training freely with trainees and instructors. An exhibition of initial training included project work completed during on-the-job placements by ex-trainees Stephen Sharp (FCD), Debbie Sadler (CACD), Alan Knowler (MASD) and Beverley Bramhill (ADD). The trainees and their Training Officers discussed this and other aspects of their training with visitors.

Exhibition stands provided a visual guide for Continuing Management and Technological Training with Training Officers and Course Tutors on hand to answer queries and discuss new ideas. Commitment to the development of Open Learning was illustrated by means of examples of packages already in use, including a demonstration given by Don Cocker, Project Leader (MASD) of an Open University module which he is currently studying. The new IBM Personal Computer Network, consisting of one IBM ATX, two IBM ATs (for use with CAD Software) and six IBM PCs was employed to demonstrate recently acquired software packages which are currently being integrated into training courses.

The Open Day attracted a great deal of interest and the comments made will go a long way in helping the Training Department to meet the needs of its customers and continue to provide Training For Performance.

Training Officer John Rees is seen here demonstrating a software package on the IBM PC network.



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

# 70 – NO HANDICAP!



Staff Ellis, Company Design Consultant, celebrates his 70th birthday – looking forward to sinking putts on his golf course cake. At the 19th hole?

# Congratulations

## Weddings



Paula Griffin married Nigel Bridger on 18th April at St. Barnabas' Church, Gillingham. Paula is an Assembler with GSD and was presented with a bone china tea set by Alan Wilson. (B)



The wedding took place on Saturday 9th May at St. Paul's and All Saints Church, Chatham between Christine (Chris) Varga and Garry Holloway. Chris has worked as a Receptionist since joining the company from a Y.T.S. Scheme in 1981. Site Services Manager Chris Frost, handed over some gifts from colleagues.

# INDENTURES

The Annual Indenture presentation and Open Evening at the Training Centre, Hopewell Drive took place at the end of April. Two of the trainees involved have given accounts of the event.

## How I saw the Indenture Evening

The annual Indenture signing evening took place this year for seventy-four apprentices and their parents, on Wednesday 29th April. Presentation of the Indentures was made by Mr. Ray Reese, General Manager and Deputy to the Managing Director (Dynamics).

The whole of the Training Centre was open to the apprentices and their parents so that the apprentices could show off their "skills" and the parents observe amazed, impressed and on the whole totally confused. Examples of electronic circuits, wiring and a wide range of computer software and hardware were but some of the attractions to be seen.

After the tour of the Training Centre parents and their sons or daughters could relax with refreshments, (admiring the breath-taking view from the windows of the Training Centre Canteen).

On the whole I thought it was a wholly successful evening and it gave us Apprentices a chance to show what we do at work – not always, I feel, appreciated by our colleagues at the factory.

Andrew Hill  
Elec Tech Apprentice

## Indenture Evening

On Wednesday 29th April 74 Apprentices signed their Indentures in the presence of their families.

The apprentices had the opportunity to show their parents some of the work they had done and skills they had developed over the past months. There was also a chance for parents to talk to the instructors and discuss their son or daughter's progress.

There were many items displayed such as note books and log books showing class work and on-the-job experience, together with various circuits.

In the computer room a number of peripherals were being used showing various techniques of drawing. The



A family affair! Ray Reese congratulates Mark Wallington, Elec Tech Apprentice, watched by mum Sheila and dad Barry Wallington, who happens to be Superintendent of Hopewell Drive.



Here is Hazel Harding with her parents.



Ian Marchant, Elec Tech Apprentice and his parents watch Software Instructor Mark Holloway demonstrate.

apprentices were also able to show their parents their own work achieved in this section. In the IBM room, more technical programs were on display.

Various examples of wiring and lacing were displayed on different units, as well as tool boxes, and machine work.

After walking round the Training Centre there was a chance for refreshments in the canteen.

It was a very enjoyable evening for everyone and it gave every apprentice the chance to demonstrate his or her newly acquired skills.

Hazel Harding  
Elec Tech Apprentice

## GEC Avionics Athletics Club 1987 Summer Fixtures

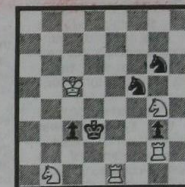
<b>JUNE</b>	SCAAA Junior/Youth/Boys Championships	Crystal Palace
20/21	City Charity Meeting	Motspur Park
24	SCAAA Senior Championships	Crystal Palace
26/27	Young Athletes League v Walthamstow/Croydon/Enfield	Dartford
<b>JULY</b>		
1	Kent AAA 10000m Championship	Bromley
4	Southern League Division 1 (Single) v Epsom & Ewell/Exeter/Dartford/Peterborough	Epsom
	Southern League Division 6B (Single) v Sevenoaks/Kent/Peterborough	Southwark park
	SCWAAA Inter-County	Swindon
5	Colts & Boys League of Kent	Erith
8	LBH Main Championships	West London
10/11	English Schools Championships	Birmingham
11	GEC Avionics Sports Day	Hoo
12	London Youth Games	Crystal Palace
19	Colts & Boys League of Kent	Dartford
22	British Airways 4x21/2 Mile Road Relay Tonbridge Open Meeting	Cranford
24/25	WAAA Championships	Birmingham
25	Southern League Division 1 (Double) v Blackheath/Reading/Portsmouth/Bedford & C	Bromley
	Southern League Division 6B v Nene Valley/Thurrock/Gravesend Runners	Nene Valley
26	Young Athletes League v Crawley/Southend/Medway	Hoo
	Young Athletes Open Meeting	Tonbridge
31/Aug. 1	AAA Championships	Crystal Palace
	Including Junior/Youth 3000m & 4x100m Relay Championships	
<b>August</b>		
2	GRE Cup Semi-Finals	West London
	Kent Womens League	Tonbridge
9	Junior & Youth Inter-County	Hendon
15	Southern League Division 1 (Single) v Bourne-mouth/Oxford City/Guildford & Godalming/Havering	Bournemouth
	GRE Plate Final	Birmingham
16	GRE Cup Final	Hoo
19	Tonbridge Open Meeting	
30	Kent Womens League	
<b>September</b>		
2	LBH Medley Relay Championships	West London
5	GEC London 5km Cross-Country	Wembley
7	Westminster Mile	
17	London Transport 4x3 Mile Road Relay	Kenton
19	SCAAA Junior/Youth/Boys 3000m Championships	Crystal Palace
20	Kent AAA & WAAA Relay Championships	Bromley
26/27	Kent AAA Multi-Events Championships (Senior Decathlon/Youth Octathlon/Boys Pentathlon)	Hoo
<b>October</b>		
4	Southern 6-Stage Road Relay	Luton
11	SCAAA Marathon Championship	Huntingdon
17	AAA 6-Stage Road Relay	Luton
	SCAAA 10 Mile Championship	Weymouth

CLUB SECRETARY:  
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ADD Progress, GEC Avionics, Rochester, Kent Tel. Medway 44400 ext 3893

## CHESS PROBLEM

### Problem No. 10

White to play and mate in two moves.



### Solution to Problem No. 9

#### MUTUAL INTERFERENCE

Key 1. Ch3! (threat 2. Qc3 mate)  
1... Bc3 2. R4d4 mate  
1... Bc3 2. Qf1 mate  
1... Bc3 2. Qc3 mate  
1... R4d 2. Sc5 mate  
1... R4d 2. Rc3 mate  
1... Sc2 2. Qd5 mate

Whereas a player is pleased when the pieces support each other, a problemist is pleased when they do not! He is delighted when Black pieces can be made to trip each other up to disadvantage, and from this have grown interference themes. In Arthur Daniels' problem the principal trio of interferences is at e3. The further interferences 1... R4d and 1... Sc2 (on the Black Bishop and Rook respectively) are a neat addition.



# DRAGONFLY CATCHES DEEP SEA MONSTER

During March, the Dragonfly Remotely Operated Vehicle (ROV) was mobilised to Brest in France to recover a subsea cable plough, lost from the French Post Office cable layer NC Vercours, in 170 mts of water 150nm west of the port of Brest.

The plough recovery was contracted to COMEX, the French diving company, who in turn sought the aid of Dragonfly.

Two of our people from OPG, **Rod Myall**, Trials and Support Engineer and **Mike Joce**, Principal Software Engineer, and one from OSEL, **Dave Dearing**, Engineer, 'piloted' the ROV during its operation.

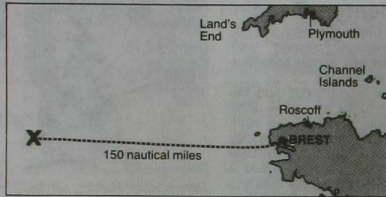
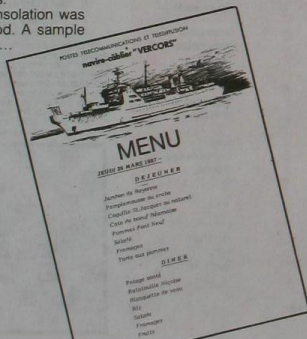
## Thursday 19 March

The first problem arose in getting the lorries, with the equipment, from the port of Roscoff to the harbour at Brest. After calls to the local Prefecture, escort was arranged. The system duly arrived, escorted by two police cars and two motorcycle outriders. All four had lights flashing and sirens wailing. So much for a quiet start.

Some problems occurred with the system power requirement which ended in the disconnecting of the ship's air-conditioning to power Dragonfly.

This turned out to be the first of a list of problems because although the NC Vercours is a modern cable layer, she is not fitted out with equipment to fully support ROV operations.

The only consolation was the "4 star" food. A sample menu is shown ...



## Friday 20 March

Eventually we set sail to the probable area of the plough, after installing the system on the ship.

## Saturday 21 March

We arrived on a clear sunny day. Having checked the system we spent most of the time twiddling our thumbs whilst the ship laid its Sylecis reference buoys; at 1600 hours we were ready to launch the vehicle. This took 25 minutes as it was the first attempt. Confusion reigned but eventually Dragonfly was in the water and clear to dive.

Down we went to 170 metres. The visibility was very good, typical for spring time, before the sun brings out the plankton bloom in the water.

A target was showing on the sonar at about 40 metres range, so off we went. We were rewarded with our first sight of the plough.

After some 45 minutes spent inspecting the plough for damage and checking the lifting points the ship decided to move and towed us more than 200 metres away. During this unscheduled manoeuvre the broken control line removed the sonar from Dragonfly.

The vehicle was brought to the surface and a frustrating 60 minutes was spent re-positioning the ship near to the plough. A 20 minute search relocated the plough and the inspection was completed.

The recovery of Dragonfly was interesting. This also took over 20 minutes, and resulted in an impromptu inspection of the ship's keel and the ship's side. Luckily, damage was minimal and the system was soon ready for its next dive.

## Sunday 22 March

Sunday was spent waiting for the weather to improve. High winds made a launch impossible. Group discussions were held to devise a non-impact recovery procedure.

## Monday 23 March

More of the same followed on Monday. Amazing how many books one can read. During the day the ship had laid two recovery lines on the seabed. These were supposed to be within 20 metres of the plough. We shall see!

## Tuesday 24 March

Improvement in the weather at last. By 11.00 we were able to dive again. A better launch procedure enabled us to get the launch time down to 18 minutes! The Dragonfly sonar was only about 50% effective after re-installing.

The plough was located on the sonar once again and after moving to it, Dragonfly headed west to find the lift line. Nothing. Back to the plough and try north. Success, a lift line. An hour was spent in releasing the clump weight. Then we attempted to move the hook to the plough.

After two hours, during which the ship had more effect on the position of Dragonfly than the pilot, we admitted to being lost,

dropped the hook and tried to find the plough but with no success. We gave up and recovered the vehicle. Over seven hours of work with no real achievement except a damaged manipulator and a lost vertical propeller.

Oh for an underwater navigation system!

## Wednesday 25 March

Another day was spent waiting for the weather. After 5 stand-by attempts we gave up for another day. At least it enabled us to do some preventative maintenance - in the rain.

## Thursday 26 March

More rain and wind. Prognosis bad. The Captain and the French PTT representative decided to return to Brest and wait for better weather. We took the opportunity to ask for a replacement sonar. At 15.30 we left the plough for harbour.

## Friday 27 March

We arrived in Brest at 02.30 this morning. Later we spent some time on the phone to find out about the new sonar. Air France would not guarantee less than 18 hours to cross Paris from Charles de Gaulle Airport to Orly. Hand carried on foot presumably? However, the original sonar was removed and temporary repairs made permanent. At least the weather was clear, even if the winds were gale force.

## Saturday 28 March

The sonar eventually arrived at about 11.30 and was fitted and tested by 13.00. A three hour harbour test dive was carried out to prove something, but not sure what.

Everything was ready for sea again. Weather permitting we should sail Sunday.

## Sunday 29 March

Owing to a local difference of opinion sailing was postponed indefinitely.

After spending the morning doing some work on the vehicle, the three crew members took the chance to look at Brest. It's an impressive sailing centre with many unusual designs of high speed and single handed yachts. Mike Joce was impressed with the wind surfing stores, he being one of those odd 'plank sailors'.



## Monday 30 March

After local agreement to defer, the ship sailed back to the plough site.

As a result of discussion over the previous few days it had been decided to try a buoyed umbilical. This means rather than just let the umbilical cable sink under its own weight it would be buoyed along the surface for the last section of its length.

Some time was spent, en route, connecting these buoys.

## Tuesday 31 March

The weather settled by midday and so Dragonfly was launched at 14.40, a sonar search was carried out but no plough. There followed 4 hours of boring seabed searching, with first one heading given to the location of the plough and then another. It felt like half of the French Atlantic Shelf had been investigated, but all to no avail. At 19.00 we gave up. Roll on Wednesday!

## Wednesday 1 April

Another bright day had the ship in position, maybe, by 10.00 and Dragonfly dived again. The vehicle was carrying an underwater flashing light to put on to

the plough to aid location. After yesterday it seemed that some help was required.

However, the next 5 hours proved a repeat of the previous day, with marked wear on the patience of the three crew members. Some waspish comments were exchanged.

The only high point occurred when the flasher was accidentally dropped and the crew given a chance to show their skill and dexterity on the two manipulators.

All in all, it had been a bad two days, exacerbated by having to work till 01.00 to repair various damaged items of equipment.

## Thursday 2 April

Another fine day. Everything was ready in record time and we were ready to dive at 09.30. Was this an omen!!!

As soon as the vehicle hit the water the weather started to worsen, but we plugged on.

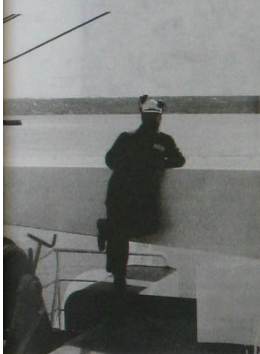
HYDRAULIC THRUSTER (1200l)

ALUMINIUM FRAME

MANIPULATOR

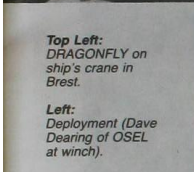
Over the last 3 years GEC Avionics has been involved in conjunction with OSEL of Great Yarmouth in the development of a sophisticated underwater Remotely Operated Vehicle (ROV) called "Dragonfly".

This ROV is capable of operation in water depths of up to 2000 metres, to perform various manipulative tasks. The electronic control and monitoring system, which provides remote control from a shipboard console and views the underwater operation with a suite of video cameras on the vehicle and a fibre optic link back to the control centre, was designed and developed by the Offshore Projects Group of ISD.



Left: Mike Joce of OPG.

Below: Mike Joce and Dave Dearing on top of the plough.



Top Left: DRAGONFLY on ship's crane in Brest.

Left: Deployment (Dave Dearing of OSEL at winch).

**OSEL GROUP DRAGONFLY DIVE LOG**  
OSD INC. 4500/2000/00000

TIME	EVENT	TIME	EVENT
12:00	DRAGONFLY LAUNCHED	12:00	DRAGONFLY LAUNCHED
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**Sunday 5 April**

Luckily the weather turned bad during the night so the final repairs were able to be completed without panic. In hindsight, they acted without fault. Back to reading French book.

**Monday 6 April**

The weather moderated by noon so Dragonfly was in the water by 12.30. The plough was only 20 metres away. Improvement at last. Once again 2 hours were taken to locate the newly re-laid lift line. "It's to the south" was the advice given by the ship. It was in fact 55 metres to the north. Such is life.

A less buoyant set of hooks were picked up - back to the plough once more. The loss of the rate gyro meant that the auto heading function could not be used and all piloting carried out in manual control. After only an hour, a new record, the plough was reached. The hooks were sorted out and the first hook-on attempt started. This operation was eventually carried out in less than an hour with four people helping to operate various controls at one stage, instead of the normal two people. After moving the line the second hook was picked up and 35 minutes saw that hooked on, but not without a few unprintable expletives being used.

The crew's cheers could probably be heard in Brest, 150 nautical miles away. After checking and clearing the lift lines for the last time, hopefully, Dragonfly was once more recovered.

**Tuesday/Wednesday 7/8 April**

There followed two days of worry. After picking up both of the lines Dragonfly had attached to the plough, the ship lifted the plough some two metres above the seabed. These lines were fed over the bow rollers and through the Dowty Bolton Paul cable tension engines. These engines were also capable of monitoring the lines' tension.

The weather stayed good for this period, and the plough was raised by one metre every two hours, as we

steamed towards Brest. One incident that had the Dragonfly crew worried occurred at about 2.00 a.m. on Wednesday morning. The ship had passed over a seabed wreck and the line tension had risen sharply - manoeuvring the ship did not relieve the problem. After two hours an engineer went forward across the deck, which had been out of bounds during this part of the operation, to visually inspect the lines. A lot of laughter followed.

Someone had over-estimated the length of the lift lines and instead of being 15 metres below the ship the plough was in fact right under the bow. The plough was lowered and the ship proceeded on its way.

**Thursday 9 April**

At 6.30 a.m. the ship was in shallow water, the plough lowered to the bottom and divers placed the correct lift lines on it and so the plough was restored to its rightful place on the stern of the ship. The ROV system was then demobilised during the day for transport back to the U.K.

At last the crew could relax. An evening in Brest was followed by a novel flight home. Brest to Gatwick on a Banderanti! Come back BA all is forgiven!

Dragonfly was at sea for just over three weeks and although a considerable amount of time was spent waiting for the weather to allow diving, the ROV was used for over 48 hours in seven dives. All damage to the vehicle was repaired at sea and any operational problems overcome on site.

The COMEX President Monsieur Henri Delauze took an active interest in the operation and possible future work for Dragonfly is under discussion.

ROD MAYALL  
Nalisea, April 1987

\*A Banderanti? An ancient Argentinian 20-set, prop driven with not much else.

Heading off east to find the plough, one of the lift lines was crossed. By following this line north east, the plough came into sonar range at 80 metres. So much for being in the right place!

The flasher was successfully placed in the grating on top of the plough and Dragonfly set off to re-find the lift line. At least we knew where it was. The hook was found about 50 metres from the plough (remember the 20 metre placement?). After about 20 minutes the clump

weight was released and Dragonfly picked up the hook in its manipulator attempting to get back to the plough. This took about 1½ hours with lots of to-ing and fro-ing as the ship pulled the vehicle the wrong way.

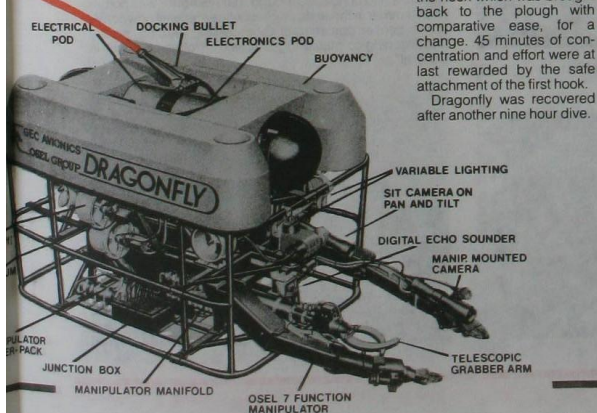
By 13.00 the hook was at the plough and one exhausted pilot was replaced by an exhausted co-pilot. It's strange how tired you can get watching someone else struggle. The actual line was moved closer to the plough to make the hook-on easier.

Everything was set for the first hook-on attempt, when the ship decided to move us away from the plough. Dragonfly was forced to drop the hook and ended up an estimated 350 metres from where it wanted to be.

An hour was spent driving the vehicle on the surface, following the ship whilst it moved back to the plough.

When we dived the plough showed on the sonar at 80 metres range and the flasher was seen at 40 metres. The lift line was located at 10 metres and followed west to the hook which was brought back to the plough with comparative ease, for a change. 45 minutes of concentration and effort were at last rewarded by the safe attachment of the first hook.

Dragonfly was recovered after another nine hour dive.



# 25 years' service

**Don Brown**, Commercial Manager, is a 25 year service AS&RD man. During this time he has risen from Commercial Assistant, and passed through most of the associated departments, such as Cost and Budget and Contracts, spending 6 years as Cost Controller, then a year as Deputy before reaching his present post in 1983.

Jim Casey, now Manager Works Services but for many years Don's DM, handed over presentation binoculars, anticipated to be helpful in locating lost golf balls, hopefully other people's. (A)



**Maureen Scott** completed 25 years service with the Company at the end of April. Maureen's time with the Company began in Fuze Division in 1962 where she worked for 10 years before moving to ISD in 1972. After serving as Confidential Secretary to the Chief Engineer and Technical Manager her last four years have been as Secretary to the Divisional Manager; during this period Maureen's organisational and administrative abilities have been much used and appreciated by many of ISD's American visitors.

Maureen received her present of a gold watch from John Colston and was welcomed to the 25 Year Service Association by Ken Hyde.

April was also the month when Maureen accepted her current appointment in GAV as Secretary to John Colston (Assistant General Manager) and John Clover (Production Executive - Dynamics Group).



**Jim Pickford** completed 25 years service with the company on 26th March, having spent 18 years with IND (now GSD) working on Mechanical Design on such projects as Blue Steel, Nimrod, Jaguar and NCS1.

The last seven years have been spent in FARL where Jim is responsible for Mechanical Design, Nuclear Hardening and Future Electronic Packaging.

A keen golfer and ex-captain of Faversham Golf Club, Jim is married and has two teenage sons.

Here, Jim receives his presentation from FARL's Divisional Manager, Dick Collinson.

'**Freddie**' **Crewe**, Regional Sales manager MASD, came to the company at Borehamwood after 22 years in the RAF, from which he retired as Squadron Leader. World-wide service included a spell with the Hurricane Wing in Russia, and 2 years in the Stalag Luft III POW camp. When he moved here from Borehamwood, Freddie was appointed Sales Manager of ACD, the forerunner of the present MASD, and his travels continued during his company service.

Divisional Manager Laurie Hampson handed over Freddie's long service gift - and by the time you read this there may have been a retirement present also! (A)



**Pat McCormack** reached his present post in CACD as Project Engineer, by a varied course through several divisions; after leaving the Navy (submarines) he joined Naval Weapons Division (surface) then TACD (airborne). There followed a spell in Aerospace Control Division - during which time he gained promotion from TA by gaining his HNC, to Development Engineer. The course then ran through TACD, FCD, CACD, and after working on many commissioning and development projects, he is now 'into sticks and throttles' for the EAP.

Divisional Manager Keith Snelling presented Pat with glassware of his choice. (B)



**Gordon Marriott**,

here seen with a fine set of china-ware, is an Inspector in GSD. In fact Gordon has been in that division or IND since 1973, after first starting in IND as Wireman, but he did spend 8 years in ASCD/ACD and it was during that period that he moved onto inspection. At home, Gordon's two married children, four grandchildren and his hobbies of DIY and gardening keep him well occupied. (B)



**Dennis Ruddleston** joined the company on April 16th 1962, and on 24th April 1987 was presented with a pair of binoculars by Mike Barton (Divisional Manager, AS&RD) on behalf of the company, and was welcomed into the GEC Long Service Association by Ted Farbrace. Dennis accompanied by his wife Dorothy, thanked Mr. Barton for the gift, and said that his only regret was that he hadn't another 25 years left to give the company.

Dennis's long service so far has included time in Radar Division, TACD, FID, ISD, and AS&RD since 1971, where he has now been trained as Estimator after many years in clerical posts.



**Mick Meakin**, Production Manager PSD, received his award of a barometer from Divisional Manager Ian Stitt. After starting in TAC as Production Tester, Mick became Leading Hand after 18 months, then Foreman and Chief of Test - which he was at the time of the merger to FCD - and later Manager, Test and Assistant Production Manager. When PSD commenced production work 7 years ago, Mick was appointed Production Manager. Outside work, he is interested in photography, particularly of aviation subjects. In the picture, Mick is seen with his wife Mavis, who works in FCD Stock Control. (B)



**Arthur Daniels**, seen here with his wife Joan, started 25 years ago in the 'original' ATED, as Wireman, and was seconded into DAD, an offshoot of ATED when the Buccaneer project started.

He then became a 'Founder Member' of the present Airborne Display Division and was soon chargehand of the wiring section, being heavily involved from the onset with the ever increasing A7 project. He was subsequently promoted to his present position of Production Foreman and has been involved in building up ADD Production Dept to it's present level.

He is well known locally as a former footballer and boxer, having represented Kent, the army and Southern Counties. He concedes though that his figure was somewhat trimmer in those days. He confines himself nowadays to the gentler pastimes of Biographical reading, poetry and listening to music together with 'Pottering about in general'. (a)





**Alan Hall**, General Machinist in CMS, says that it is not much different from Centre Lathe Turner which is what he did when he joined MACD Model Shop 25 years ago, after completing an apprenticeship with Le Grands. Later Alan was in FID Machine Shop and then in the Combined Shop which later became CMS. His wife **Carole**, seen here, works as Clerk Typist in PSD, with 15 years' service. CMS Manager Peter Burrows handed over a presentation set of cutlery.



In leisure time, Alan is a keen badminton player. (B)

Before entering industry **Bob Hawkins** had five years' experience in the Royal Air Force where his expertise in radar took him to many far-flung and exotic locations.

Joining Rank Cintel in 1962 he soon made an impression in the Test Department where his initiative and diagnostic skills assisted in the early production of the Buccaneer HUD. It was a natural progression from this for Bob to join CQD to handle the maintainability aspects of the LAAS and A-7 HUD programmes. Since which time he has consistently concerned himself with the introduction of new ideas and innovations. These have ranged from being the editor of the first Quality Manual, the measurement of the reliability of naval electronic equipment in service, introduction of the QA Function into CQD's Test Houses through to the generation of national Defence Standards on Reliability and Maintainability.

In thanking Bob for his contribution to the Company, CQD Manager Ken Boardman hoped that he would continue in his pioneering role in the assurance technologies. (A)



## 25 YEARS AND RETIREMENT

**Jim Sturla**, Instrument Fitter in FCD, believes he has worked on all the projects in the 'flight control' activities of TAC/FCD/FCD, that is, since he moved from the cancelled TSR2 project in MACD. That's a long history right through from VC10 to the latest Airship project.

At Jim's double presentation, he was given a long-service watch by Divisional Manager Brian Tucker, who also handed over a radio-cassette player from all his friends and colleagues. (A)



**Geoff Rands** joined the Company after an RAF apprenticeship and 10 years in the Service.

He spent four years in program definition and management activities at EASAMS after which he returned to Inertial Navigation Division as a Sales Engineer.

He was later promoted to Sales Manager during the inception phase of the Jaguar NAVWASS activity within IND, and joined ATE Division as Sales Manager in 1979.

Geoff is a keen golfer, gardener and Do-It-Yourselfer (probably in that order). Divisional Manager Arthur Colwell made the presentation. (A)



**Eric Barham**, Quality Technician in AS&RD, emerged from his usual night-time haunts – on the night shift – to receive from Ted Farbrace, then Production Manager, his long-service gift of glassware. Eric thus joins the increasing number of people who have spent 25 years in AS&R; prior to his present job he was Instrument Fitter and Chargehand. Eric's wife Kathleen came in with him to share the celebration. (B)



The printers would like to apologise to Alan Chambers and Ted Oid for the accidental interchange of their photographs in last month's issue and regret any inconvenience caused.

# Retirements

**Bill Andrews** has retired from AS&RD after more than 20 years. General Manager Glyn Thomas, old friend of Bill and for many years his Divisional Manager, made a farewell presentation and recalled Bill's company career, which started in Stock Control where his experience in computer controlled business management was put to immediate use. New and rigorous demands from customers made AS&R's need for the most up-to-date systems and software urgent, and Bill's continuous involvement in providing these culminated in his appointment in 1972 as Supplies Manager and in 1985 Divisional Consultant. Glyn Thomas handed over the gift of a patio set – to go on the patio which Bill is building.



Bill Andrews with a group of his friends and colleagues – he is third from left. (B)

**Jim Bond**, Senior Production Engineer with GSD, retired on 29 April and was presented with a teamaker and camera attachment by Dave Harries. Jim was an acknowledged authority on the production of miniature gyros with knowledge gained from 36 years with the company. His friends and acquaintances including many from the 'top floor' wish him well in retirement and hope he enjoys his many and varied hobbies. (B)



**Margaret Irvine** retired on 19 March and was presented with a clock from her colleagues. Margaret worked as a Stores Operative with GSD and had been with the company for 13 years. Before joining the company she was involved in running a Newsagents shop in London.

Margaret likes gardening and is hoping to see more of her grandchildren and also get involved in the local community activities of Broadstairs where she now lives. Her friends wish her a long and happy retirement. (B)



GSD Model Shop's long-serving member **Vic Rudd** retired after 36 years' service, which had started in Sheet Metal Department prior to his move to IND. Before joining Elliotts, Vic had been with Shorts and in the Army. Dave Harries is seen here with Vic and his friends' gift of a lawnmower. Many in GSD and elsewhere will remember Vic's wife **Violet** who used to be in the library – she came in to share in Vic's farewells. (B)



Retirements continued on Page 10

## Retirements continued from Page 9

**Ted Woodger** from the Despatch and Shipping Office in ATED was once a very young sailor in the war, and left the Navy after ten years, at the age of 25. His next job was rather shorter, one forenoon as a lumberjack. This was ideal background for his next job – he joined ATED in 1969, as the Assistant Production Manager's trouble-shooter, but later on he got a desk of his own, later still a chair. This was in the Buying Office – it was in 1971 when he moved to Despatch.

Alex Castle, Production Manager, presented gifts on behalf of all his colleagues. (A)



**Bob Cashen**, who retired on 7 April, left Standard Telephones in 1963 and joined MACD as a Wireman, working on Buccaneer and TSR2. He remained with MACD until the merger of FCD and joined CACD when the Division split. Most of the time in CACD he has been employed in producing Test Equipment with the Test Engineering Section, more recently working on SAGE Equipment. He has been a valued member of the Production Department and has always maintained a high standard of workmanship.

Bob spends much of his free time at home framing pictures for his wife who is well known locally for her painting, and he will be able to devote more time to this now he is retiring. His wife worked for this company many years ago.

Bob was presented with a barometer by Divisional Manager Keith Snelling. (A)



**Muriel Farrer** of Wages Dept., known particularly to countless weekly paid staff, retired after 11 years as Wages Clerk and Section Leader. Now she is moving to Stourport to be nearer her family; Chief Accountant Brian Handley gave her the best wishes of her friends and colleagues. (B)



**Ken Mason** of ATED has retired from 31 years at Rochester. Way back when the division assumed its present form Ken was on assembly work, later becoming Leading Hand and about 8 years ago, Foreman. Shootin' and fishin' will now take up more of Ken's time, together with d-i-y helped by the gift here being handed over by ATED's Production Manager Alex Castle. (A)



**Jack Oxlade**, Project Controller in ATED, is seen here with Chief Engineer Sue Marsh who congratulated him on his retirement after 15 years with the company. That followed 35 years in the Navy. (B)



**Austin Bevan** took early retirement at the end of March, after 10 years as Electrical and Mechanical Foreman with WES. Earlier, Austin's life included war service with the Fleet Air Arm on HMS Ark Royal, and working on contract with major engineering firms in power stations. Now he will have more time for his hobby of fishing – from Broadstairs Pier from the front seat of his car? Also miniature oil painting; among the gifts handed over on behalf of colleagues by Works Engineer Don Freeman were supplies for that hobby, as well as a food mixer and crystal glasses. (B)



**Pauline Wilkinson** retired from ATED on 24 February, after serving some ten years in the Progress Department. Pauline, who was born in Dover, started her working life as a barmaid prior to joining the WAAF in 1945.

Returning to industry in 1948, Pauline worked for Marconi-Osram in her home town until its closure in 1957. Joining STC in that year she worked in the "Thorn Building" until 1976 when she joined ATE at the Flying School. ATE's move to the Thorn building saw Pauline back within 15ft of her old workplace in her STC days.

Pauline, a cheerful and popular member of ATE, was presented with a Drinks Trolley and Sun Lounger by Alex Castle, on behalf of her colleagues who wish her a healthy and happy retirement. (A)



# Sports and Social Club Round up

## CRICKET

This year's Interdivisional Cricket Tournament is now well under way. The scheduled matches are as follows:

**MAY**  
Th 7 FCD v GSD (Prod) FCD won  
Tu 12 ISD v AS&RD AS&RD won  
Th 14 FARL v PSD RAIN, rescheduled for Th 18 June  
Tu 19 Accounts v CS Data Ducks CS Data Ducks won  
Thu 21 CACD (Model Shop) v CACD (Eng) CACD (Eng) won

**JUNE**  
Tu 2 CACD (Prod) v MASD } Rained Off  
Th 4 GRADS v ATED }  
Tu 9 ISD v GSD (Eng)  
Th 11 WES v BP  
Th 18 FARL v PSD

All these matches are "First Round" to decide entrants for the main competition. Losers of the First Round will contest a "Plate" trophy on a knockout basis.

Future competition dates have been allocated and will be assigned as results become known.

**JUNE**  
Tu 16 Qualifier for Trophy – ADD v winners of ATED v Graduates  
Tu 23 Quarter-Final Plate – GSD (Prod) v losers of CACD (Eng) v CACD (Model Shop)

**JULY**  
Th 2 Qualifier for Trophy – CS Data Ducks v winners of ISD v GSD (Eng)

Tu 7 Quarter-Final Trophy – FCD v winners of CACD (Eng) v CACD (Model Shop)  
Th 9 Qualifier for Plate – losers of ISD v GSD (Eng) v losers of ATED v Graduates  
Tu 14 Quarter-Final Plate – ISD v losers of CACD (Prod) v MASD  
Th 16 Quarter-Final Trophy – AS&RD v winners of CACD (Prod) v MASD  
Tu 21 Quarter-Final Plate – losers of FARL v PSD v losers of WES v BP  
Th 23 Quarter-Final Trophy – winners of FARL v PSD v winners of WES v BP

**AUGUST**  
Tu 4 Quarter-Final Plate – Accounts v ?  
Th 6 Quarter-Final Trophy

Come and watch. All matches are at the Hoo Club House – 5.30 p.m.

# GAv/BP Kent Swimming Club Royal Life Saving Society (RLSS) Awards Evening

## AQUAGOLD AWARD

There are 15 sections to the award which are:

Water Safety Award  
Aquanaut Award 1-4 AQUAPACK 1  
Basic Resuscitation Award  
Rescue Skills 1-5  
Safeswimmer 1-4 AQUAPACK 2

Every Aquagold must be passed to achieve Aquagold Award.

The Aquagold presentations took place at the Club Pool on Friday 5th June at 8.30 pm.

Our guests for the evening were:-

Joan O'Connell, President, Kent Branch RLSS  
Pat O'Connell, Secretary, Kent Branch RLSS  
Maurice Finch, Club Secretary, GAv/BP Kent Club

Tony Mills, Representative from the Leeds Building Society who sponsor the RLSS Aquagold Award

Congratulations on passing the Aquagold Award to:-

Mandy Atkinson Age 14  
Josephine Baran Age 12  
Lisa Strike Age 14

The girls each received their Award, a badge, sports bag and a Young Leaders account with the Leeds Building Society for £5.00.

## Life Saving/ Personal Survival Sections

The Life Saving/Personal Survival Sections will be 2 years old in September and although we are a small group we have achieved the following Awards:-

## Royal Life Saving Society (RLSS)

RLSS Prelim Teachers' Certificate 1  
RLSS Bronze Medallion (General) 5  
RLSS Intermediate Award 7  
RLSS Elementary Award 1  
RLSS Aquagold Award 3  
RLSS Water Safety Award 20  
RLSS Basic Resuscitation Award 11  
RLSS Aquanauts 1-4 45  
RLSS Rescue Skills 1-5 29  
RLSS Safeswimmer 1-4 17

## Amateur Swimming Association (ASA)

ASA Personal Survival Level 1 3  
ASA Personal Survival Level 2 1  
ASA Swimming Challenge Bronze 14  
ASA Swimming Challenge Silver 14  
ASA Swimming Challenge Gold 15

## Swimming Teachers Association (STA)

STA Survival Bronze 6  
STA Survival Silver 8  
STA Survival Gold 8  
STA Survival Merit 1

We have 6 members who will be taking the RLSS Bronze Medallion (General) on 20th June at the Club Pool and we wish them every success.

Our success and progress owe a vote of thanks to our Principal Teacher Denise Dutton, who is assisted by Colin Newman, Ann Baran, Michelle Crighton, Shirley Atkinson and Connie Gilbey (who is also a Club Lifeguard) all of whom are volunteers.

For further information contact:  
Cyril Moffett  
Home Medway 48707  
Works Medway 44400 Ext. 4241

## AWARDS

### RLSS Aquagold

Lisa Strike  
Mandy Atkinson  
Josephine Baran

### RLSS Water Safety

James Marshall  
Steven Marshall  
Nicola Holt  
Adam Gilbey  
Michelle Crighton

### RLSS Aquanaut 1

James Marshall  
Steven Marshall  
Nicola Holt  
Adam Gilbey  
Michelle Crighton

### RLSS Aquanaut 2, 3 & 4

Michelle Crighton

### RLSS Basic Resuscitation

Michelle Crighton

### RLSS Safeswimmer 3

Josephine Baran  
Sarah Moffett

### RLSS Safeswimmer 4

Josephine Baran

### RLSS Rescue Skills

Josephine Baran  
Sarah Moffett  
Martyn Holt

### STA Adult Achievement Bronze

Mick Goodrum  
Mahesh Mistry

### STA Teddy Bear Award

Lawrence Williams

## Silver Medals GAv/BP Squad Swimmers

Richard Johnson and Richard Jibb are pictured receiving silver medals from Pat O'Connell of the Medway ASA for individual swims in the Medway Age Group Championship held at the Black Lion Sports Centre on Saturday 25th April.

Richard Johnson came second in the 15 year old freestyle and Richard Jibb came second in the 13 year old breast stroke. Both boys achieved personal best times to give the GAv/BP Squad its best Medway result for several years.

The GAv/BP Swimming Squad train on Tuesday and Thursday evenings at the Four Wents Pool from 7.30 pm until 9.00 pm. Parents whose children enjoy swimming and are aged from 9 to 14 years are invited to contact Dave Jibb on GAv extension 3907 to arrange for a trial session.



Richard Johnson.



Richard Jibb.

## Bon Voyage

Ann Baran, her husband Jit and children Josephine, Gavin and Sophie will shortly be emigrating to Canada. Ann has taught children to swim on Thursday evenings at the Club Pool for the last 7 years, and Friday evenings Life Saving for nearly 2 years. As a farewell gift Ann and the children were presented with jewellery on Friday 5th June at the Club Pool. Ann has taught many children to swim and will be sadly missed. The swimming section wish Ann and her family every success and happiness in Canada. During her time with the club Ann has passed the following exams:-

ASA Prelim Teachers  
ASA Teachers  
RLSS Prelim Teachers  
RLSS Bronze Medallion (General)

CYRIL MOFFETT  
Chairman, GAv/BP  
Kent Swimming Club

Left:  
Bon Voyage - Ann.  
Left to right: Cyril  
Moffett, Gavin Baran,  
Ann Baran, Josephine  
Baran.



Above:  
Aquagold Awards  
Left to right - Lisa  
Strike (14), Josephine  
Baran (12), Mandy  
Atkinson (14).

Behind Josephine,  
Tony Mills, Leeds  
Building Society  
Representative.

Above right:  
Chin tow rescue.

Right:  
Connie Gilbey  
demonstrates hand  
position for chin tow.



ACKNOWLEDGEMENT  
Photos - Alan Keats

# Reaper Club

The May meeting followed the established procedure, with the business meeting followed by supper, and then the entertainment.

This month the "Rainham Rangerettes" (billed as National Champions) gave a polished performance which delighted and enthralled the audience. The audience showed their appreciation by the tumultuous applause.

Before the close - 3 games of Bingo were played.

The first of 1987's Outings was held on Wednesday 27th May, which was an ideal day to visit Hastings - warm air and sunshine (a contrast to 1986, when it rained hard all day).

Many enjoyed not only the sea breezes, but also a little-known attraction - the wonderful Parks - bright with flowers and shrubs bursting into colour.

A delightful day was enjoyed by all who made the journey.

# GAV FOOTBALL SECTION

For the 1987/88 season, we will be running two teams; hopefully the first team will be in Division II, with the reserves in Division VI.

Any good, keen players interested in joining are invited to contact:-

Malcolm Smith (Chairman) Ext 3186, FCD Eng.  
 Alan Reilly (Secretary) Ext 4267, FCD Eng.  
 Tony Lyons Ext 3154, CACD Maintenance

Dave Patterson Ext 3803, CACD Prod.

Our list of achievements for the 1986/87 season:  
 - Finished 3rd in Division VI, losing only 2 matches and narrowly missing out as runners-up

- "Quarter Century" League Cup finalists  
 - Semi-finalists in the Sittingbourne and Milton Charity Cup  
 - Quarter finalists in the Kent Junior Cup.

As you can see, in our first season we acquitted ourselves quite well! Now we need new players for the high standards required to maintain these achievements.

**Training will commence on Wednesday 22nd July, for every Wednesday following, at the Clubhouse, Hoo.**

We look forward to a good response and to seeing you.  
 T. Lyons  
 D. Patterson



## Club-House Attractions

JUNE	JULY	COUNTRY & WESTERN EVENING	NOTES FOR YOUR DIARY
<b>Music in the Bar "FRENCH KISSES" DUO</b> FRIDAY 19 JUNE 8 - 11 pm  <b>FRIDAY 26 JUNE POOL CLOSED</b> at 7 pm for <b>MASD SUPERSTARS</b>  <b>SATURDAY 27 JUNE BP FUNCTION</b> 7.30 pm in Ballroom	<b>CHILDREN'S DISCO "X-OCET"</b> FRIDAY 3 JULY 7 - 10 pm  <b>Music in the Bar with "CHASE" (Trio)</b> <b>SATURDAY 4 JULY</b> 8 - 11 pm  <b>PARLOUR DERBY</b> 8 races <b>SATURDAY 11 JULY</b> 8 pm	<b>SATURDAY 18 JULY</b> 8.30 - 11.30 pm  <b>Music in the Bar with THE TONY FALCON DUO</b> <b>FRIDAY 24 JULY</b> 8 - 11 pm  <b>SOCCER SECTION DINNER/DANCE with "MISTY"</b> <b>SATURDAY 25 JULY</b> 7.45 - 11.45 pm	<b>SATURDAY 29 AUGUST</b> Summer Bank Holiday Dance  <b>SATURDAY 31 OCTOBER</b> OVER 50s EVENING Sherry : Dancing to "HAPPY DAZE" Admission £1

# ARE YOU A SKIER OR INTERESTED IN LEARNING TO SKI?

**NO GUTS, NO GLORY**



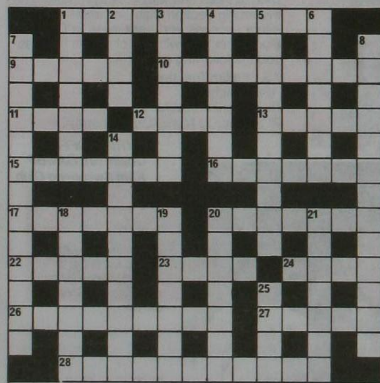
We are in the process of forming an official Ski Club to help those who can ski and, just as important, those who can't ski.

We currently organise OPEN SKI-ING and lessons, at the CAPSTONE PARK DRY SKI SLOPE, for beginners and/or more advanced skiers.

We also hope to organise a 'cheap' self-catering skiing holiday to ANDORRA next January (i.e. January 1988) for members of the ski club.

If you are interested in joining the ski club and/or the holiday please contact:-

Lesley Friend - ext 3781  
 Richard Jones - ext 3483  
 Debbie Soames - ext 3174



## Crossword No. 84

For amusement only

### Across

1. Old name for a collection of Kent ports. (6-5)
2. A Somerset town. (7)
3. Anointing with oil in religious rite. (7)
4. A cure for all ills. (7)
5. Long storytelling, controls traffic. (5-5)
6. Bitter or wounding remark. (7)
7. The first ones were called "Bradburys". (8-5)
8. In a manner of speaking sometimes called "Pidgin". (6-7)
9. The sap of a special tree (5)
10. Title usually given to the victor. (9)
11. A shipmate's call. (4)
12. An ointment or metal substance. (4)
13. Consumed a pint of the best (5)
14. Dining out ensures one. (4)
15. Intrepid ancient travellers went into the... (7)
16. Proteinous constituent of animal cells. (7)
17. A Town Crier's mode of announcing. (7)
18. They are always up front. (7)
19. Adding sauce or herbs. (7)
20. A support on staircase or for trains. (4)
21. Descendants of the original white settlers in S.A. (5)
22. An African ruminant animal. (5)
23. The Tower saw many a one. (9)
24. The female of the species who tends animals. (11)
25. What happens in rolling pastry. (7)
26. An ancient "God". (7)
27. All sailors at the start. (4)

### Solution to Crossword No. 83

#### Across

1. Middle of the road; 2. Hostages; 9. Ferret; 11. Imam; 12. Water Music; 13. Straw; 15. Barnacle; 19. Overture; 20. Nyasa; 23. Switched on; 25. Sago; 27. Tallon; 28. Live wire; 29. In the first place.

#### Down

1. Mohair; 2. Dismantle; 3. Liar; 4. One day; 5. Even money; 6. Ogres; 7. Detached; 10. Cedar; 14. Artichoke; 16. Costa Rica; 17. Rossetti; 18. Creel; 21. Tonic; 22. Pop eye; 24. Islet; 26. Help.

Photographs taken by the Staff Photographers are acknowledged in the following way: (A) Alan Keats; (B) Ian Douglas.

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