



## QUEEN'S AWARD IS CELEBRATED

This year's Award was given for the Export Achievement of the whole Company, rather than to an individual division as in recent years. And to ensure that as many people who wished could join in commemorating

the Award, the Company's fourteenth, it was decided to invite employees and their families to a Party, to be held in conjunction with the Interdivisional Sports Day, at the Sports and Social Club.

On the day, Sunday 30 July, over 3000 people attended at Hoo, despite the possible effects at noon, decision time, of the first heavy shower seemingly for weeks.

A full day of Sports, with record entries, was accompanied by a Swimming Gala in the Pool, and a number of attractions for children were set out on the field. Free meals were available in a large marquee with bar. Other tournaments were Bowls, 5-a-side football and Netball, and there were



The serious business . . .



. . . and the fun

several novelty races for children. One highlight was the aerobatics display by the Microlease Pitts Special biplane, and the GEC Avionics Brass Band gave a varied programme of music. In the evening there was dancing in the marquee.

The Swimming Gala, new this year, was won by ADD and the prizes were given out by Mrs Frances Reese. Next year it is hoped to have a Victor Ludorum trophy for the seniors as well as the juniors.

The Inter-Divisional Management Trophy for the Athletics was won by Airborne Display Division. Victor Ludorum, Men, was Graeme Storer of MASD, and Ladies, Nicola Saker of AS&RD.

It was very pleasing to see

visitors from our 'outposts' at Nailsea, Borehamwood, and Welwyn Garden City - 2 coachloads from there. There was particularly loud applause at the Prizegiving for Nailsea collecting the 5-a-side football prize.

Bill Alexander, Chief Time-keeper for the athletics, introduced Mrs Enid Howard who gave the prizes, reminding the audience that the Party was an opportunity for all employees and their friends, relatives, and children to celebrate the company's Queen's Award. But perhaps the whole event was summed up by Ray Reese in a note thanking the members of the Working Party organising the memorable and enjoyable day: "Unfortunately it was so successful we shall probably have to do it again next year!"

This year's winners of the coveted Haskett Trophy for Engineering Innovation are a team of four from Flight Controls Division and Combat Aircraft Controls Division. Julian Old and Chris Osborne, Principal Systems Engineers, and Matthew Svoboda, Project Leader, all of FCD, together with Geoff Woodley, Principal Engineer of CACD, share the Trophy and the Prize of £1600.

At a ceremony in the Conference Suite, Sarah Haskett, widow of Fred Haskett in whose memory the award was founded 12 years ago, presented miniatures of the Trophy and cheques to each of them.

The winning entry was for a fault tolerant Primary Flight Control System which is designed to operate throughout the service life of an aircraft, often 20 years, without any unscheduled

maintenance. Faults which occur during operation are absorbed by the system and carefully monitored for rectification at the next routine maintenance stop. This new system design offers airline operators reduced maintenance costs with increased aircraft fleet efficiency, more than offsetting the additional initial investment.

The prototype system has been developed in conjunction with Boeing, and puts GEC Avionics in a strong position for future production contracts. The technology can also be exploited in other high integrity control applications to provide the desired balance between initial costs, maintenance, and life cycle costs.

Runners-up were Dave Puleston, Senior Systems Engineer, and Simon Tryhall, Senior Development Engineer from ADD, for their

paper on LOCUS (Laser Obstacle and Cable Unmasking System). This pilots' hazard-avoidance system has been successfully flight tested in the USA and there is continuing interest in its application for both fixed wing aircraft and helicopters. Also runner-up was Chris Staveley, Systems Engineer in FARD, for his submission on an Optical Sighting System. This gives greater freedom of action to a pilot using a Helmet Mounted Display, enabling him to take sights through the full area of visibility provided by the cockpit canopy.

Assessors this year were Dr B. O'Kane, Paul Rayner, Gordon Belcher, Professor J. Shepherd, and Mr G. Howell, Director of Research of the Civil Aviation Authority.

In introducing the projects, Paul Rayner said:

"One of the main benefits to the Company of this competition and for which we must thank Mrs Haskett, is that it encourages engineers to communicate the results of their work effectively and to develop an understanding of the benefits of their project both to the Company and its customers. Good communication is useful not only in marketing, but is equally important for internal management presentations and for design reviews where the design approach is communicated to their peers for review and comment."

After the formal part of the ceremony was ended with thanks and a bouquet for Mrs Haskett, there was buffet lunch for all present, who included representatives of young engineers from all divisions. *Picture next issue.*



## RON HOWARD IS PRESIDENT OF THE SBAC

In June, Ron Howard was elected President of the Society of British Aerospace Companies, the most important and influential grouping of the UK's aviation industries and the organiser of the Farnborough Air Shows.

During his 35 years with the Company, his expertise in control systems for aircraft has been vital to the gaining of many important contracts, onwards from his pioneering work on the first automatic landing systems.

Mr Howard's involvement with many successful programmes and his

membership of numerous major industrial Boards and Committees have paved the way for his election to what is undoubtedly the most prestigious honorary appointment in the UK's aerospace industry. During the years, his work has been marked by the award of the Royal Aeronautical Society's Bronze Medal in 1973, the British Gold Medal for Aeronautics in 1986 and by a number of prizes for his many important technical papers.

Now, for this latest honour, we offer our congratulations.

## JOHN COLSTON

John Colston, General Manager for the Controls and Instrument Systems Group, has been appointed as Director of GEC-Marconi Research, at their site at Great Baddow, Essex.

In his twenty one years at Rochester, John has been in the forefront of the work in digital systems in several divisions which has led to valuable and successful contracts; a recent example has been the major Queen's

Award-winning SCADC project in ISD which he led as Divisional Manager for 4 years from 1983. Earlier associations were with FARD, ADD and ATED, and the then newly-formed PSD, which led to his ten years in ISD.

Now, with his promotion to his new senior appointment, the congratulations and good wishes of those divisions, of CISG, and of the whole company go with John.

## 1989 HASKETT TROPHY AWARDED TO FCD/CACD TEAM

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Maurice Sparham, CQD (Flying School)  
Phyllis Ellis, CMS  
Volunteers should offer their service through Divisional Administration Officers or direct to the Editor.

*It's all happened!*

Here is a miscellany of items which have collected on the Editor's desk while he was away. They are in no particular order chronologically, and are included as a digest of some of the things that have happened over the last few weeks, and of items of interest.

## Thanks for your toys

Mrs Janet Marshall would like to convey her thanks to everybody who donated toys to the **1988 AS&RD Christmas Toy Appeal**, with special thanks to the many unknown friends in other divisions who kindly gave toys.

## BLOOD TRANSFUSION SERVICE

During the last visit of the unit, **657** people attended and **598** units of blood were collected.

The secretary of the unit has written to thank all who participated.

Their next visit will be **2nd October** for five days.

## RAF BENEVOLENT FUND Lifetime of Service Books

Bob Hoather and Chris Blackmore of the resident RAF team would like to thank those GAV personnel who bought copies of the book, 'A Lifetime of Service', sold by ourselves in aid of the Royal Air Force Benevolent Fund. We would particularly like to thank those people from various divisions who acted as focal points for the distribution of the books within their own divisions. We were amazed to find that when we totalled the figures, GAV personnel here at Rochester had purchased over 300 books, raising in the process over £2000 for the Benevolent Fund.

Unfortunately, we have been informed that there are probably no more books available, which is a great shame as we still have outstanding orders for over 20 more. However, we will try to obtain more books if we can, to meet the outstanding orders.

Thank you all again for providing such a remarkable boost to the Benevolent Fund.

(Signed)  
**R Hoather**  
Chf Tech  
CSDE (GEC Av) Ft

## PRESIDENTIAL VISIT

On 13 April, GAV were hosts to Dr Cecil French, then President of the Institution of Mechanical Engineers, who was accompanied by Mr M.G. Lancaster, Chairman of the Rochester Branch and four other Members. After an introduction to the company by John Colston, the visitors saw ISD Microsystems and the Production area, also parts of (then) PSD. Dr French (right) is seen here with John Colston and Doug Taylor, Consultant Engineer, GAV.



## Central Charity Fund RECENT DONATIONS

A donation of £100 for the local branch of the **Muscular Dystrophy Group**.

The **British Diabetic Association** was given a donation of £200 towards the costs of setting up a diabetic Day Centre.

The **Leonard Cheshire Foundation** received a donation of £200 for the Mote House Home at Mote Park, Maidstone.

**Parentline - OPUS** is an organisation for parents under stress. £100 was donated to help in providing aid groups for parents who are having problems with their children.

**Parkinson's Disease Society** received £50 as a contribution to a sponsored slim by five employees in ISD to raise funds for research. Approximately £400 already raised.

£250 was given to the **Molly Wisdom Hospice** for purchase of a camera.

The **Urostomy Association** was awarded £100 towards the purchase of diagnostic equipment for St. Bart's Hospital. A donation of £50 was given to the **Association of Friends of Milestone School** for their Grand Draw in June.

£100 was awarded to the **Gillingham Youth Leaders' Council** in support of a sponsored walk in France in aid of "Children in Need".

**DIAL**, Kent were awarded £100 towards the purchase of a photocopier.

Both the **Kent Association for the Blind** and the **Royal Association in Aid of Deaf People** were awarded £100 to support various fund-raising activities.

A cheque for £200 was presented by Pauline Turner (FCD, Committee Member) to Sister Jenkins of the Livingstone Hospital at Dartford on behalf of the Central Charity Fund.

The hospital is hoping to raise a total of £2000 in order

to purchase a special type of mattress used in the nursing care of terminally ill patients.

If you would like to join the **Central Charity Fund** and help support local organisations, subscription forms are available from **Personnel Records**.

## Encantado de conocerles

(Delighted to meet you)

In June, a distinguished Delegation from the City of Cadiz, Spain, came to Rochester upon Medway on a goodwill visit to the Mayor and City Council. On the 2nd, His Worship and the Chief Executive of the City Council brought a party to visit GAV as the largest business establishment in the area. The guests included the Mayor of Cadiz, the Vice-President of the Cadiz Chamber of Commerce, and the Councillor of Tourism, accompanied by their wives, with the dignitaries from the City Council. Our visitors were given a short introduction to GAV and were entertained to lunch.



The presentation at Livingstone Hospital

## Athletics and Admin

How many trainees and staff who have come across Dennis Foxley, Administration Assistant in Training Dept., realise that he has a long and distinguished career in the world of Athletics?

Dennis is President of Kent Amateur Athletic Association for 1989, and has held the post of Secretary to the Association for the past three years.

He started in Athletics in 1949 with the City of Rochester Athletic Club, now the Medway Athletic Club, and through an active career of over 35 years has competed in events from 880 yards to the marathon. His last competitive race was the 1983 London Marathon, coming 12th in his age group in a time of 2 hours, 56 mins.

He has represented Kent, at both cross-country and road running, and the Transport Command of the RAF after winning the Command three mile Championship. He won the Kent road running vest after coming 8th in the Finchley 20 miles Road Race which was the Premier road race in the South at the time.

One unusual incident during this part of the active stage of his career (in 1964),

was the abortive finish to a three mile race in Libya while he was working for a former Company in that Country. Competing in Benghazi for the British Army in a match to encourage Athletics, the race was nearing its end when runners from different local teams started fighting, the crowd then swarmed on to the track and the race and hence the goodwill match ended in chaos!

Dennis is qualified as a middle distance coach and as a track and field judge. He has been President, Chairman and Treasurer of his Club and was made a Life Member for his services. He has been a member of the County Committee since 1972 and has held various posts, Secretary of the Track Championships, held at Crystal Palace, and of the Kent Track League. He has also been co-organiser for the Young Athletes Kent cross country League since its inception twelve years ago.



## ITeC Prizegiving

In April, ITeC's fifth course prizewinners were handed their GEC Avionics prizes by Ron Howard at a ceremony in the Conference Suite, attended by the Mayors of Rochester upon Medway and Gillingham, local dignitaries, members of the ITeC Board of Sponsors and GAv managers. GAv, Kent County Council and the local councils are co-sponsors, with Dr Peter Carrington, Technical Manager of MASD, as Chairman of the Board.

Dr Carrington mentioned in his address, the change of status of Medway ITeC within the past year to a non profit-making limited

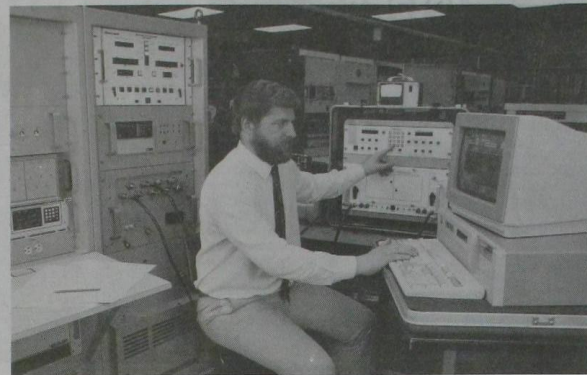
company, following the continued decline in government financial support. This has been a marked success, with several new commercial training ventures under way and a significant growth in student numbers.

Ron Howard commended ITeC for its efforts to help overcome the increasing skill shortages in local high-tech companies such as GAv, by providing the various forms of training courses. In Information Technology to school-leavers entering employment, also to older trainees needing particular IT skills.

## ATE Division prepares MATE for USAF

The photograph shows Andy Shelley, a Development Engineer in Automatic Test Equipment Division, preparing the first of three MATE systems to be delivered to the USAF and USN to support their Standard Central Air Data Computers (SCADC). Andy is using the Portable Automatic Test Equipment Calibrator (PATEC) supplied for the purpose by the USAF to calibrate the pneumatic section of the MATE.

GEC Avionics is the only off-shore supplier of MATE to the US Military who will use the equipment at Depot Level to automatically test and diagnose SCADC Line Replaceable Units (LRUs) and Shop Replaceable Units (SRUs) from some 38 different types of aircraft.



## FCD WALKABOUT



One Sunday last November five members of FCD organised a sponsored 10 mile walk around Mote Park in order to raise money for the Special Care Baby Unit at All Saints Hospital, Chatham.

They in fact raised just over £400 for their efforts, and the GEC Avionics Central Charity Fund donated a further £100 in support of their tremendous achievement. Pictured above are four

of the five walkers (Debbie Taylor, Andrea Crouch, Carol Stevenson and Nina Heard) presenting their cheque to Dr Ducker of the Unit. The attached poem was written in memory of the event.

*One Sunday in mid November  
In the year 1988,  
Some lasses up in FCD  
Went on a special date.*

*Debbie and four friends of hers  
They went out for a walk,  
10 miles of marching round  
Mote Park  
And you should have heard  
them talk!*

*There was Debbie, there was  
Carol  
Iren and Nina too  
And don't forget poor Andrea  
Who had some blisters - one  
or two.*

*They did it all for Charity  
To help pay for some baby kit,  
And between them raised a lot  
of dosh.  
Four hundred pounds and a little  
bit.*

*It was for the Olly Fisher Fund  
At the All Saints baby ward  
That they did this little hike,  
Because they thought it was for  
a good cause.*

*So they completed 10 miles  
walkabout  
Without fuss or real deep pain.  
So it's congratulations and well  
done  
To Carol, Andrea, Nina, Debbie  
and Iren.*



Seen here are John Richards, Managing Director of Medway ITeC, prizewinners Mark Mills, Lisa Walker, and Andrew Parkin, and Dr Peter Carrington. Mark's prize was for Most Improved Trainee; Lisa's for Best Business Administration Trainee; Andrew's for Best Computing Trainee. Best Electronics Trainee Michael Downing is now living in Australia - ITeC's first export.

## INTERNATIONAL TEST PILOTS' SCHOOL

In April a party of 15 Flight Test Engineers from MBB Manching visited Rochester as part of the Avionics Systems Flight Test course they were attending at ITPS, Cranfield. Accompanied by Cranfield staff Tutors, they received technical briefings on GAv products relevant to Tornado mid-life update, ECR and Eurofighter. GSD, CACD, ATED and ADD made contributions, and the visitors were entertained to lunch before returning to Cranfield. The previous day they had seen GEC Sensors' activities at Basildon and stayed overnight near Maidstone.

## Department of Defense

Capt. Tim O'Brien, USAF, Officer in Charge of Detachment 17 Air Force Contract Maintenance Center personnel here at Rochester, tells us that during the week of 27 February a team from the parent unit at RAF Croughton visited with Company personnel and the resident Detachment 17 office. Lt. Col. Nereng, Director for Quality Assurance, led the team of USAF Production, Contracts, Quality and Industrial Property representatives.

AFCMC acts as the worldwide contracts administration arm of the Air Force Logistics Command. AFCMC's 400 personnel administer approximately 1,700 contracts valued at nearly \$7.5 billion. AFCMC was originally established in 1969 to administer AFL's aircraft and engine modification and programmed depot maintenance contracts in the United States. In recent years AFCMC's focus has expanded to include a wide

variety of maintenance, repair, development and production contracts performed almost exclusively by overseas contractors.

AFCMC has nine detachments, plus 27 associated operating locations, with personnel stationed in 15 countries. Detachments are staffed by military and civilian specialists in contracting, manufacturing, flight and ground safety, property management, quality assurance and flight test operations.

Detachment 17 has had a resident contract administration office at GEC Avionics for nearly 20 years.

**During their visit, our guests met senior members of ADD, ISD, AS&RD and CACD.**



The AFCMC visitors: seated are Robert Lewis, Personnel Chief, HQ; Frank Sunderhaus, Production Director; Lt. Col. Nereng; Larry Phillips, Contracts Director; and Stan Gillon, AFCMC Det 36 in Italy. Capt. Tim O'Brien is immediately behind Lt. Col. Nereng.

## SUGGESTION SCHEME AWARD OF THE YEAR

In April, **Bob Payne**, Leading Hand Tester in GSD Production, received from Ron Howard the Plaque, Certificate, and Prize for this year's adjudged Best Suggestion.

Bob is involved in the testing of the Central Sensors Units for the Stingray project. The CSU contains a Magnetic Fluxgate consisting of three magnetic field sensors mounted in the X, Y and Z axes. The CSU has to be tested in a Faraday Cage and the axis of the fluxgate must be accurately aligned within the cage. Before the implementation of this suggestion the alignment of the CSU within its mounting frame was adjusted by experiment. Bob's suggestion involves the utilisation of existing dowel holes in the



CSU casting to pick up on two studs screwed into the mounting frame. Alignment

of the fluxgate is now fixed and test times have been improved.

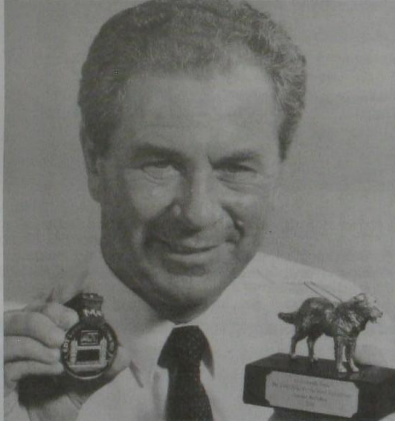
## THE MARATHON MEN

**Alan Hindlet**, progress chaser in ADD Production, ran in this year's London Marathon on 23 April with two personal ambitions in mind: one was to complete the 26 mile course in a better time than last year (3:55.04) and the other was to exceed the £200 raised for charity last year.

Only one of these targets was achieved; with Alan's time being 3 hours, 58 minutes, he just failed to beat last year's time by just under three minutes, but with the help of colleagues and friends at work he managed to achieve the grand total of £455 (£50 being donated by the Central Charity Fund) for the Guide Dogs for the Blind.

Alan, a member of the GAV Athletics Club, decided to take up long distance running after watching the first London Marathon in 1981 and has now competed in the last two London Marathons and a number of half marathons.

For his achievement the Guide Dogs school pre-



sented Alan with a replica of a guide dog.

Alan would like to thank all the people who sponsored him, also the people throughout the company who col-

lected sponsorship for him.

He will be back training for his next marathon in December, which takes place in Majorca.

## Melvyn's great Achievement

The staff of CSD would like to congratulate Melvyn Stringer (Operations Dept. CSD) on his magnificent achievement in the London Marathon in April. In this race he finished only 160 minutes after the winner Desmond Wakihuri from Kenya and ran the dustcart clearing up the spectators' rubbish to a very close finish.

Reports that he stopped to have his legs massaged by

the St. John Ambulance girls along the way are entirely false, although sources close to the police say that one or two of the public houses around the course have reported that a runner closely resembling the athlete drank several pints and ran off without paying. The police are baffled - Melvyn insists he only drinks Crème de Menthe when in training.

However, Melvyn earned £55 within CSD in sponsorship monies in aid of the Maidstone Play School for Handicapped Children and is considering retirement on the basis that anything else would be a let down after his great athletic achievement over the classic 26 miles, 385 yards course - Well done Melvyn.

ANON

## IT'S A KNOCKOUT

On Sunday July 16 a team from ISD and one from GSD entered an "It's a Knockout" competition at Strood Sports Centre. This competition had been organised as part of the Medway Festival weekend.

ISD were GAV 'A' team and GSD were GAV 'B' team.

The first event was a six-legged race, i.e. six team members with their ankles tied together, in which the two GAV teams were beaten by Lloyds and the local council.

The next event was balancing a football on two skipping ropes and running 200m, which the 'A' team won. This was followed by a rolling blow-up tunnel through which each team had to run balancing a football on a tray. Next was an event in which all got soaked.

The idea was that two members from each team with little plastic bags filled with water ran on to a blow-up castle and threw the bags to the girls from their team.

The final event of the first half was girl members of each

team knocking the stuffing out of each other on an inflatable log over an inflatable pool.

The second half began with the most memorable event of the day. Not because the GAV teams won, but solely due to the fact that Dave Humphries was dressed as a pumpkin, and Linda Shackleton as a French maid laying stepping stones for the pumpkin to jump on to.

Another event was an inflatable maze through which each team had to crawl. Mandy Clarke disappeared for hours finally emerging dying of starvation!

Giant blow-up hamster wheels were next, which were great fun! Glenn Saphin was superb, speeding down the course in record time. He let on afterwards that he'd practised for this in his hamster's cage at home!

A giant 15 foot high wedge was inflated for the next game, running up and throwing balls into tiny fishing nets being the activity.

The final event of the day

was diving into the blow-up pool and fishing out horseshoes.

The final placings were: Lloyds of London 1st Rochester Council 2nd GAV A team (ISD) 3rd GAV B team (GSD) 4th Although we didn't win, it was a great day out, and all team members asked when the next one would be.

Our team members were-

ISD - Paula Brown, Dave Humphries, Linda Shackleton, Andy McIlheron, Rob Smith, Mandy Clarke, Maureen Moore, Glenn Saphin, Lesley Friend, Chris Bower.

GSD - Ron Flewett, Mick Cheese, John Landers, Ian Brown, Tim Gilbert, Clare Taylor, Nickey Smith, Jenny Barnett, Sue Beaney, Anne-Marie Hooley.

**Chris Bower**  
Software Engineer  
ISD

## MODEL OF UNIQUE LOCAL COMPOSITE AIRCRAFT GOES ON DISPLAY

Memories of the long association between the Medway Towns and Shorts were revived recently when a model of the Short-Mayo composite aircraft was put on display in the Civic Centre, in Strood, close to the Medway River from where the two aircraft first flew after their construction at Short's Rochester factory.

The composite aircraft was an ingenious solution to the problem of introducing a long-range air mail service. It consisted of Mercury,

a four-engined seaplane, mounted on the Maia, an Empire-class flying boat, similar to the Sunderland recently in the Historic Dockyard.

After take-off, the fully-laden Mercury would separate and set off on its mail run, having used much less fuel than if it had to take off and climb without the Maia's assistance.

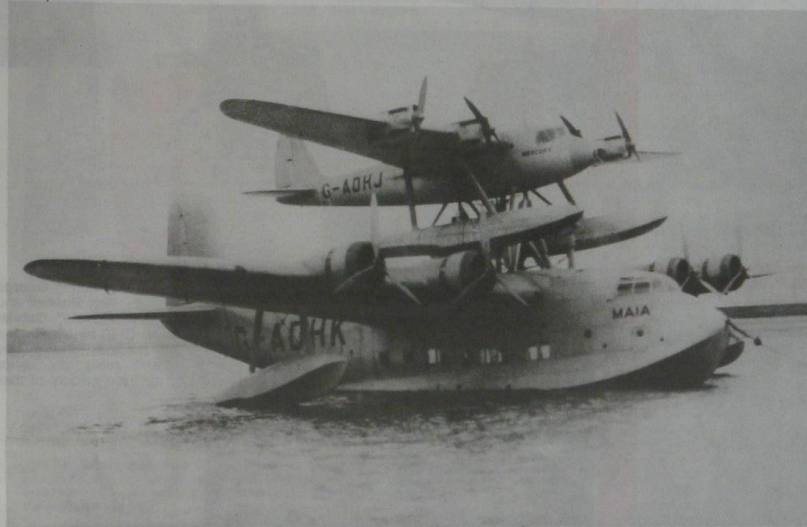
The aircraft first flew in mid-1937 with the first combined flight early in 1938. In July 1938 the Mercury

carried its first transatlantic mail after a composite take off from Foynes in Ireland; Mercury's flight time was some 20 hours.

Although a number of other flights were made, this service was interrupted by the War. Under the pressures of war, a number of long distance aircraft were developed and this expensive combination was no longer needed.

The model on display is owned by Mrs Sally Birkett, the daughter of Short's

former chief test pilot, John Lankaster-Parker. As a sign of appreciation for her family's and Short's long connection with the city, Mrs Birkett has loaned the model for permanent display. It has been restored by the Medway Aircraft Preservation Society and is displayed in a case presented by GEC Avionics as a token of appreciation for the long-standing support given by the people of the Medway Towns to the British aircraft industry.



## Cycling to Success



**Kim Staff, 21**, working as Assistant Ratefixer in ADD Production, first came to the company four years ago as YTS Trainee.

Here she is proudly displaying the Trophy she has won for her cycling, as Kent Best All-rounder. Kim has been a keen racing cyclist for five years or so, and is a member of Wigmore Cycling Club where she holds all the ladies' club records - 10 miles in 23m 19s, 25 miles in 50m 58s, 50 miles in 1hr 16m 20s, and 100 miles in 4.38.27. Through her participation in national championships Kim is ranked among the top 20 best in the country. Last month she repre-

sented England in Sweden in a three-day four-stage international road race against Sweden, Holland, Finland, Denmark, Norway, and USSR. Kim finished 13th out of 60, only 55 seconds down on the winner, and was the best positioned Briton.

And for the future, Kim's ambition is more international races abroad - she's looking to the next Olympics for which she can qualify if she reaches ranking in the top five.

*P.S. She won the ADD Bike Race too.*

*P.P.S. Kim has just been invited to train for the Women's Tour de France next year. This is a twelve day event to be held in July.*

## Ian Minards Memorial Squash Tournament

This year's Tournament was held at the Priestfields Leisure Complex on 13 May. The tournament began in 1984 as a memorial to Ian Minards, an Engineer in FCD who died in the most tragic of circumstances, and is played every year between Priestfields, Black Lion and GAV squash teams representing the three Squash Clubs at which Ian Minards played prior to his tragic death. Each team endeavours to include those players who knew and played Squash with Ian.

For the last five years the trophy has been won by Priestfields, this year the winners were GAV. As in all previous years the contest consisted of each team fielding five men and one woman player, who play

three games against their opposite number in both the other teams, with a point being awarded for each game won. The outcome was a competitive and friendly event with the final outcome not being settled until the later matches of the contest.

The final scores were:

GAV 23 points  
Priestfields 20 points  
Black Lion 11 points

The successful GAV team was: Ben Wilkinson (formerly FCD); Phil Corcoran (ADD); Brian Harris (ADD); John Hollands (MASD); Martin Pearson (formerly FCD) and Sue Fray.

Both other teams had players who work at GAV: Barry Smith, FCD - Black Lion and Gerry Colwell, CS - Priestfields.

## PRODUCTION TRAINING FOR THE US MARKET

All employees know how important it is for the Company to expand its business in the US Market. I am therefore pleased to write that personnel from Instrument Systems Division recently successfully completed a 40-hour High Quality Soldering Course held at Hoppewell Drive, run by myself. This course is held to meet the requirements of the US Navy Weapon Specification 6536E/SCN3. Each successful participant is issued with a certificate.

Only personnel who have been certified are allowed to work on contracts where the Weapon Specification is a contract requirement.

This course demonstrates the Training Department's role in further training and development of staff, and Divisions' initiative in recognising the need for that training.

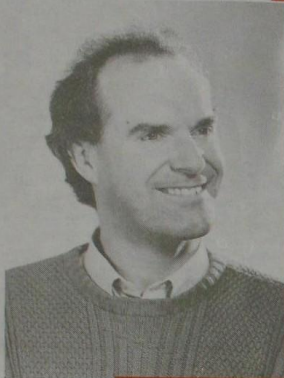
**Hugh McArthur**  
Senior Training Instructor,  
Category C Instructor/Examiner  
(WS 6536E/SCN3).



Left to right: Kathy Parsons; Mark Potts; Hugh McArthur; Chris Divers; Steve Fowe (Asst. Production Manager); Pat Szalay; John Newton; Rita Palan.

# COMIC RELIEF

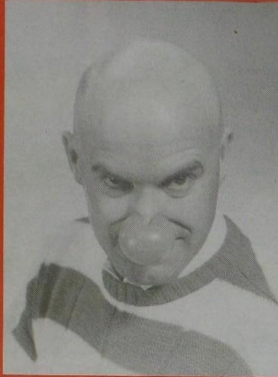
On the day when red noses were worn by large numbers of people and cars, several diversions were seen around the divisions for the gathering of funds in aid of Comic Relief. Some of these are best not reported, but the efforts of some of our people were recorded by the camera. There may well have been other noble efforts not seen here – to them also, congratulations and thanks from the children.



Before

**David Robins** Development Engineer (SMS) in ISD, had to tow the works in this state, ride his bike to the station and get the train to Whitstable, to increase his own contribution to £160, this went towards ISD's total of over £400 raised by several different methods.

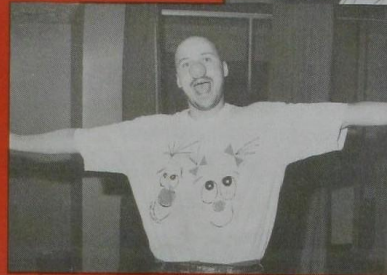
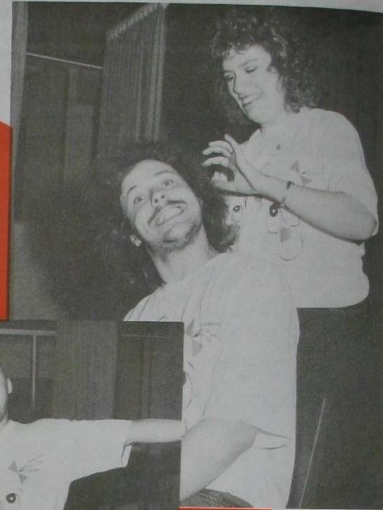
**Rob Slight** Technical Illustrator in GSD, raised £140 with his sacrifice. It's grown back now.



After



Probably the most public event was the defoliation of **Kevin Lewis**, Development Engineer in MASD, who raised over £1100 from the many cheering customers in the Main Canteen where the deed was done on-stage. Kevin could still raise more by selling the individual hairs which he has in a bag



In ADD Engineering, **George Graham, Reg Bushell** and **Doreen "Flossie" Gabriel** raised £140 by fairly orthodox methods: this picture doesn't really do justice to the lurid colours of their hair-dos.

## GEC Avionics V British Telecom MIXED HOCKEY

On a bright sunny Sunday morning at Strood Sports Centre GAv fielded a magnificent mixed eleven to face the challenge of BT. Featuring players from GSD, MASD and ADD, the GAv side put up a sterling performance against the more professionally attired and more

co-ordinated opposition. Particularly notable were C Hewitt and D Soames in defence and Pete Gummer in goal who made crucial interceptions and tackles from the marauding BT forwards. Not that the traffic was all one way – GAv came close to scoring on several

occasions, notably from a couple of short corners, where only excellent goal-keeping prevented GAv from scoring.

The score was 0–0 at half time and despite pressure from BT and breaks by GAv the score looked to remain that way, until, with only seconds to go, BT broke clear, attacking down the field after a period of GAv pressure. Gummer in goal did well to force the attacker wide, and before the BT attacker could shoot, the final whistle went, to be followed only a fraction of a second later by the sound of the ball hitting the backboards – but no goal was scored.

All in all an honourable draw, and good fun in the bargain.

### RETURN MATCH

On another very hot Sunday morning there was a return match. Having won the toss GAv had the push back. In the opening stages of the game British Telecom had much of the possession, showing the benefits of having played together as a team several times before. However, GAv managed to stand firm using their newly acquired skills from the inter-divisional competition. As the game settled down the mid-field dynamo, normally called Yoz, was working overtime along with Nikki and Marguerite, breaking down the BT attacks and distributing the ball to the GAv attack. However, some of the attacks still managed to get through giving goalkeeper Gummer a chance to show

his skills. A fine run up the wing by Robin, followed by a pass to the centre of the goalmouth, gave Charlie the chance he needed to score a goal. For the remainder of the first half GAv managed to keep the pressure on BT without giving them any real chance to score.

In the second half the rate of play was noticeably slower as the heat started to take effect. GAv were still working together well with the defence consisting of Nikki, Brian and Gerry holding off the BT attacks and getting the ball back out to the forwards. Unfortunately they were caught out by a fine run through by BT which enabled them to level the score. GAv continued to pressure BT to regain the lead, with the two wingers Jenny and

Marguerite picking up the hits out from the defence to split the BT defence. This increased pressure gave GAv two short corners, and several long corners, but unfortunately they were unable to convert them into goals. GAv's best chance came from a penalty flick, but again they were unable to score from it. So the game ended a 1–1 all draw, but a good time was had by all.

### The players

Pete Gummer, Brian Parrot, Gerry Peach, Nikki Burton, Jean Cardwell, Robin 'Yoz' Davis, Nikki Smith, Marguerite Blackwell, Charlie Hewitt, Robin Vane, Jenny Vane, Steve Kennedy, Debbie Soames, Pat Hewitt, Claire Boarer, Geoff Bell.

## GAv and Marconi Instruments join forces

Marconi Test Systems, part of Marconi Instruments Ltd., and GAv ATE Division, two of GEC's major test systems organisations, have officially launched their link-up to provide a unique new test systems support team. The announcement was made at the "Integration for Test Solutions" symposium and exhibition at the RAF Museum, Hendon, opened in July by Lord Trefgarne, Minister of State for Defence Procurement.

The link-up addresses a market covering both military and commercial user needs for test systems demanding competitive technology at keen prices and short time-scales. It also addresses

many of the emerging test system architectures (like CASS, MATE, SMART, VXI, ADA and ATLAS) which are classifying suppliers in terms of the customers they support. The two companies are also involved in the emerging US DoD Test Systems Standards. GAv were displaying their MATE Test System for the USAF and US Navy. Both GAv and MTS have signed a Memorandum of Understanding with General Electric of the US for the marketing of CASS (Consolidated Automated Support System) in Europe.

By working together, a wide range of support philosophies and test system

architectures can be provided for customers ranging from the armed forces and airlines to system prime contractors, system integrators and commercial users.

The two companies will together develop products and systems — that are, wherever possible, compatible — for a wider market, and in certain cases offer joint capabilities (such as system support packages). On some large programmes (such as EFA, EH101) the companies will join forces. Except in these declared areas the two businesses will continue to operate independently.



Lord Trefgarne is being shown a Mission Planning System by (left to right), Roger Sawtell, Sam McNaught, and Brian Camp (ATED) with Alan Court (Assistant Managing Director, Marconi Instruments) looking on. In the background are some of the splendid paintings in the museum's Dermot Boyle art gallery where the exhibition was held.

## UPDATE ON SOME BUSINESS ACHIEVEMENTS

### GSD DELIVER FIRST EQUIPMENT FOR MLRS

Guidance Systems Division have delivered the first European built Stabilised Reference Package/Position Determining System (SRP/PDS) for the Multi-Launch Rocket System (MLRS).

This is a major milestone for the company in a contract to supply nearly 450 SRP/PDS units, and is the result of two years' activity by GAv, working within this multinational programme.

MLRS is a multiple launch, indirect 227mm rocket system intended to supplement conventional cannon artillery. The system consists of a rocket loader, self-propelled launcher, a fire control system, and two pods each containing a maximum of six rockets.

This US developed system is being manufactured in Europe under a Memorandum of Understanding between the USA, FRG, UK, France and Italy. The complex industrial management of this joint production and procurement is being undertaken by MLRS Europäische Produktions GmbH (MLRS-EPG). The launchers are integrated by Aerospatiale in France and by Wegmann in Germany.

The SRP/PDS is an inertial navigation system which continuously calculates the

geographical position of the vehicle enabling highly accurate navigation to launch or re-loading areas. Located on the launch mechanism of the MLRS, the system also calculates the attitude of launch platform, ensuring rapid, precise

rocket targeting by the fire control system.

GSD has also established a facility for the production, under licence from Allied-Signal Aerospace, of the high performance liquid high static gyroscopes used in the system.

### FURTHER SCADC ORDERS

Instrument Systems Division and the United States Air Force Aeronautical Systems Division have concluded negotiations on a further quantity production order for SCADC equipment.

The order is for an additional 378 units, bringing the total SCADC quantities ordered by USAF/USN to 4664. The delivery programme agreed extends SCADC production for USAF/USN to April 1991.

Included in this latest order are units for the Royal Australian Air Force (RAAF) as well as USAF and USN. The RAAF will equip their F-111C aircraft with the CPU-142/A SCADC. ISD Engineering personnel have successfully completed aircraft integration tests on this variant at RAAF Amberley, Australia. Also included are

the first production units for the CPU-152/A SCADC, a dual channel Air Data Computer developed and qualified by ISD for the USN/Lockheed S-3 'Viking' ASW aircraft.

The increased confidence that USAF and USN have in SCADC through its demonstrated in-service reliability is illustrated in this most recent order by a decision to forego the requirement for any warranty provision. With all configurations of SCADC meeting or exceeding the required Mean Time Between Failure (MTBF) guarantee, SCADC is providing even greater savings in Life Cycle Cost, the prime driver in establishing the initial SCADC requirement and the subsequent development/production contracts.

## Champion Round of Golf

Paul Zakrzewski's daughter Lisa (3) attends the BIRD clinic (Brain Injury Rehabilitation and Development) in Chester. Paul's workmate Gary Whitcombe raised £675 by playing a sponsored round of golf on AS&RD's Golf Society's Captain's day.

Sponsors were mainly from AS&RD, but were also from FARL, families, friends and Whitstable "Harbour" Ten Pin Bowling League.

The £675 raised is to be put towards Lisa's costly treatment.

Left to right: Mike Farahar (Society chairman); Paul Zakrzewski; Bob Wood (Society captain); Gary Whitcombe; Ken Rhodes (Production and Repair Manager); Les Long (Ten Pin bowling team captain).



## UNSUNG HEROES

Many of us have been fairly uncomfortable during the recent (and maybe continuing) unusually hot and humid weather.

We should all spare a

thought for the canteen people working in the kitchens — never at any time the coolest of places. Throughout, they have continued their normal work of providing the hot

meals still needed by the daily large numbers of employees and visitors, under conditions which at times must have been extremely difficult. Well done!

## PRODUCTION ORDER FOR GERMAN AIR FORCE F-4F CENTRAL AIR DATA COMPUTER

Instrument Systems Division and the Federal Republic of Germany Defence Procurement Agency (BWB) have recently concluded negotiations for quantity production of the F-4F Improved Combat Efficiency (ICE) Central Air Data Computer (CADC).

The CADC is a derivative of the CPU-143/A SCADC, of which around 1000 units have been delivered to the United States Air Force. Unlike the majority of USAF units, the F-4F CADC is integrated via the MIL-STD-1553 Databus with other

avionics, and has already been demonstrated by flight test to provide high accuracy air data for Navigation and associated mission systems.

The production order is for a total of 161 CADCs with a delivery programme continuing to 1994. This order is particularly significant in that, apart from further extending SCADC production, it is the first Production order for SCADC related equipment placed by an agency other than the US Department of Defence, or US-based prime contractors.

# Two events at Hopewell Drive

## "EDUCATION FOR INDUSTRY"

On Thursday, 11 May, Mrs. Brenda Trench, Chairman of Education for Kent County Council, showed her support for the training effort of GEC Avionics by officially opening the Company's re-turbished training centre. She is seen here (right) presenting a plaque to commemorate the occasion to Bill Alexander, Deputy Managing Director of GEC Marconi Ltd., and Chief Executive of GEC Avionics Ltd. Senior Managers hosted twenty local head teachers and area and county education officials and conducted a tour of the centre, display-

ing examples of the work produced by technical trainees. Pictured below is Mr. Trench looking through a pilot's Head-Up Display and receiving explanation from Mark Lockyer, who recently completed the Company's technical training scheme and now holds the position of Foreman in ADD.

The training centre provides a vast range of technical training in electronic and mechanical engineering skills for school leavers with GCSEs and A Levels, and is equipped with modern CNC

machine facilities and computer networks in order to meet the developing needs of the industry. With government initiatives to enhance the secondary education curriculum, it was enlightening for both the industrialists and the educationalists to meet for this event. The company is recruiting 200 school leavers this year, all of whom will receive sponsorship for further or higher education. This clearly underlines the value GAv places on the education and development of young people.



## INDENTURE SIGNING OPEN EVENING

Later the same day, the annual indentures evening took place. Here is a personal account from one of the apprentices involved.

*"On the evening of 11 May the indenture signing for the present first year apprentices took place. The indenture signing process was quite smooth and efficient. To be introduced to one of the General Managers was quite nerve-wracking and a prospect that most apprentices were not looking forward to. In retrospect the conversation that took place between Mr R F Wilkinson and myself was most pleasant, relaxing and not at all intimidating as I thought it might be.*

*This evening was the first opportunity, since I joined the Company, for my parents to visit my place of work.*

*The layout and presentation of the Training Centre was first class, mainly due to the hard work carried out by the apprentices and instructors in the days leading up to the event.*

*The atmosphere in the centre was relaxed and informal, giving the parents a chance to catch up on the work that the apprentices have been doing.*

*I was glad that the Open Evening held opportunities for my parents to discuss and chat to the Training Centre Instructors and the relevant Training Officers, because although I feel it was a*

*privilege to have the Managers with us, I wanted my parents to meet the people who really knew how I was coping with my training.*

*My overall impression was that the evening was not just a case of travelling to the centre and signing a set of documents. The indentures are a stepping stone to the future of my apprentice career and a definite indication by the Company who are responsible for me and my training.*

*My parents and myself really enjoyed the evening even down to tea and biscuits afterwards."*

**NEIL HOSKEN**  
First Year  
Mechanical Apprentice



## Football Section reports improving performance

Having managed to build up two reasonable sides by the end of 1987-88, we saw the start of the 1988-89 season with teams entered in both Divisions 2 and 6 of the local league. The response

from potential players was so bad that for the first Saturday of the season only eight players were available for two sides! The second team was quickly withdrawn and those players left faced an

uphill struggle to survive in Division 2. Fortunately the standard of football at this level was not as good as the season before, and by managing to field eleven players every week the club survived. The results in the first half of the season were poor with only seven points gained from eleven league matches. The club was also knocked out of three cup competitions in the first round. However, at the end of 1988 several older players were talked out of retirement and they added the experience and ability that had been missing from the team, and also enabled a settled side to be put out each week. This transformed the league results, and of the seven remaining matches five were won, one was drawn and only one lost, to the unbeaten champions of the division. The final league position was in the top half of the table with an even record of six wins, six draws and six defeats.

The side also won a trophy in the second half of the season, the Maurice Finch Challenge Trophy, which was contested between the Rochester and Nailsea sites in March. The football section beat Nailsea 2-1, and would like to thank the company and the staff at the social club for providing refreshments for both teams and their supporters at this event. It is hoped that the Trophy will continue to be contested each year with a match at Rochester and a return fixture at Nailsea.

**For the 1989-90 season training is already underway every Wednesday, and a series of pre-season matches has been organised. Any players interested in representing the company team in Division 2 of the local Saturday league should contact the team manager Tony Lyons on extension 3154.**

## GAV CORPORATE ADVERTISING

For the first time for some years, the company and its advertising agents have planned a continuing series of ads to enhance the company's image and capability to our potential customers. These will appear over the next few months in important aerospace and technical journals such as 'Flight', 'Aviation Week', Jane's publications, and regional defence magazines such as those for the Far East and 'Pacific Rim'.

Other companies - competitors - have habitually placed such "prestige" corporate advertising and it has been possible to ask 'Where is GAV?'. Now that we are more actively pursuing the huge potential market for retro-fitting avionics in aircraft mid-term through their service life, this series has been planned to illustrate our expertise and range of products to influential readers of the specialist press.



# GAV OUTSIDE EVENTS

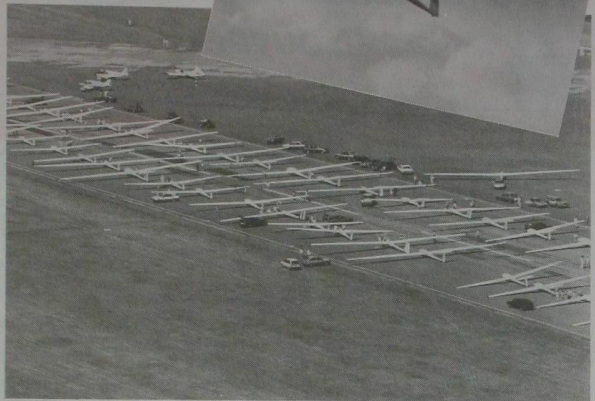
In recent weeks, the company has been represented at the Paris Air Show, the National Gliding Championships, and the International Air Tattoo.

At the Paris Air Show, GAV was one of the companies exhibiting on the GEC-Marconi Ltd stand. We were displaying the Integrated Night Vision Helmet (INVS) and an F-16 C/D Wide Angle Head Up Display.

INVS, drawing on experience gained with the Cats Eyes NVG recently selected by the US Navy and Marine Corps, is currently under development. It is the result of several years' research by GAV into new materials and human engineering. This has involved detailed study of human skull shape, and the design and manufacture of a series of precise ergonomic models.

The INVS helmet is one of a range; all are lightweight, with an optimum centre of gravity, and will fit almost all head shapes. These helmets have a modular design which allows the pilot to retain one basic helmet for all mission types, and to 'clip on' the required equipment for each operation. The equipment is built into a 'module' which forms the front area of the helmet, surrounding the face and including the visor.

The GEC National Open Class Gliding Championships, held at Lasham, Hants, in July, were a change of name from earlier years when GAV were the sole sponsor, since this year GEC Sensors were involved in their own right. With our sponsorship of this important event in the international gliding calendar, we were able to offer hospitality to a large number of MoD and industrial guests at a senior level, on an informal basis often with their families. This year the weather was good



Line-up on the Lasham runway for one of the major competitions.

and the visitors were able to see a great deal of gliding activity with their company hosts. At the end of the Championships, the GEC Avionics Cup and GEC Avionics Trophy were presented by the GEC Chairman, Lord Prior.

The International Air Tattoo was held at Fairford in July. Widely regarded as the premier European air display, it is run in the style of "air shows" over the years, open to the public. GAV and GEC Sensors took part as members of the Maritime



Some of the company guests during a lull in the flying.

Industries Team and once again were able to entertain as guests senior members of MoD, the Forces, and

industry. The event is an important fund raiser for the Royal Air Force Benevolent Fund.

Landscape by day

Landscape by T.A.

Look in...

Look out!

Two examples from the series, which appear in full colour in the journals. Some of you may already have seen the first of the set of six.

## HALIFAX

**ESPECIALLY NEGOTIATED RATES FOR GEC EMPLOYEES**

### \* First Time Purchasers

First time buyers qualify for a 1% discount for the first year's payments.

### \* Second Time Purchasers & Remortgages

All other mortgages can be reduced by 0.5% for the first year.

### \* Apex Mortgages

Larger loans over £60,000, representing no more than 80% of purchase price, qualify for a 0.55% reduction for no fixed period.

NB: First time buyers who qualify after the first year can be transferred to this scheme.

### \* Flexible lending terms to suit each employee

### \* Special rates with local solicitors available

### \* Mortgage certificates available

### \* Appointments available every Thursday, 12.00 noon - 2.00 pm

\* Contact Di Bower on Ext 3417 to arrange an appointment with Craig Hardiman, Senior Mortgage Consultant, for your personal quotation



**MALCOLM BALLMAN**  
New Manager of Chatham/Gillingham

Malcolm has been with the Society for 18 years. Before Chatham he spent 3 years at Canterbury and previously, 10 years in the West Country.



**CRAIG HARDIMAN**  
Senior Mortgage Consultant

## It's All Happened!

When the Editor returned he found a new face and faces to Powerplant Systems Division. Here is an introduction to the division and its work.

## THE NEWLY NAMED DIVISION

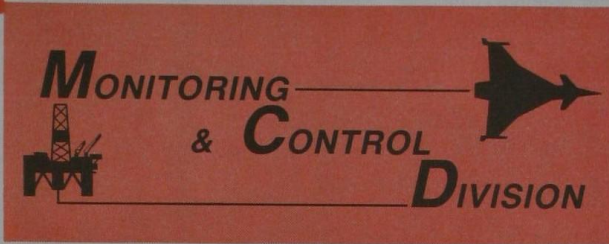
The product range within Powerplant Systems Division has been expanded over the past years with such products as Standby Instruments and Displays, Fatigue and Engine Health Monitoring, Engine Supervisory and Control, Engine Data Acquisition and Test, and Maintenance Data Panels. To add to confusion, when Peter Hewlett was appointed Divisional Manager of Powerplant Systems Division the Offshore Projects Group at Nailsea, who had reported to Peter in his former Division, Instruments Systems Division, also moved with him. This brought to the Division a specialised subsea product range of production control systems for offshore oil and gas production, and

Remotely Operated Vehicles.

Having reviewed the product range there is a common function which describes the activities of the two operations, namely 'Monitoring and Control'.

Therefore the Division's management elected to change the Division's name to Monitoring and Control Division with effect from 1 July this year. This name lends more appropriately to the monitoring and control functions applicable to

Subsea Controls and Remotely Operated Inspection Vehicles  
Airframe and Engine Monitoring  
Aircraft Instruments and Displays



## PERSONNEL STRUCTURE



**Peter Hewlett**  
Divisional Manager

On 3 April 1989 Peter Hewlett was appointed Divisional Manager of the Division. Also joining Peter on that same date was Rod Davidson, appointed Commercial Manager who joined the Division from ADD, and Laurence Matthias, appointed Production Project Manager who provides Production Management expertise for the Division and fills the gap left by the merger of the Production Department into ISD.

These new appointments to the established personnel of Alex Hill in Marketing, Trevor Morgon in QA, and Rod Tester as Technical Manager completed a new-look division based at Rochester. To complete the team structure Ray Phillips' engineering team based at Nailsea also reports to Peter Hewlett. The Divisional family tree for Monitoring and Controls Division is structured thus:



**Ray Phillips**  
Chief Engineer  
Oil/Gas



**Rod Davidson**  
Commercial Manager



**Laurence Matthias**  
Production Projects  
Manager



**Trevor Morgon**  
Quality Assurance  
Manager



**Alex Hill**  
Marketing Manager



**Rod Tester**  
Technical Manager  
(Airframe/Engines)

## MOVING HOME

Back in 1982 the Division was temporarily accommodated at New Road whilst the Production Department remained at Rochester Main Site. The Division was unfortunately housed upon five different floors of New Road; this, combined with the inefficiencies of having people 'on the road' between the two sites, was unacceptable to the newly arrived Divisional Manager.

The problem of interfacing with the Production Department was finally solved in two ways; firstly, they were incorporated into ISD, and secondly the Division took over their old residence at the Rochester site. This may seem like killing one bird with two stones, but the Division has found it much easier to interface with the new Production facility.

The greatest advantage of being on the main site is better contact with other Divisions - you can see us, we can see you! But to see us, first you have to find us. We are in the Huts behind the Towers. The Engineering and QA Departments are in Hut 11, next to Accounts; the Management and Administration are alongside them in Hut 6, adjoining Stationery Stores (who incidentally have not been *stationary!* - apologies both for showing them sideways and for the pun).

We've just about settled in, and the huts are remarkably more attractive inside than out - for which, many thanks to Works Engineering for all their efforts. Come and see us; our doors are always open!

## NEW CONTRACT

## Engine Monitoring System for Boeing AWACS

MCD has been awarded a contract to supply an Engine Monitoring System (EMS) to be used on the UK E-3 Airborne Warning And Control System (AWACS) aircraft as supplied by Boeing Aerospace to the RAF.

The function of the EMS is to collect data from each of the four engines and from other aircraft systems during flight. This data is stored on a solid state cartridge, which is later removed from the aircraft and loaded into a ground station. The ground station (an IBM PC compatible computer) reads the data from the cartridge and uses it to perform engine health analysis, which allows more cost effective main-

tenance and engine failure prediction.

The flight box includes a Liquid Crystal Display which gives engine and aircraft data to the Flight Engineer in real time. The storage of data is controlled automatically and is initiated at certain times in each flight. If pre-set limits are exceeded, the display informs the Flight Engineer, and more comprehensive data storage is activated which can be analysed in detail on the ground station.

Delivery of the first system is due early next year. Prior to this the equipment will undergo a rigorous qualification programme. A further nine flight units and twenty

cartridges will then be delivered through next year together with a second ground station.

This system builds on the successful developments MCD has undertaken in the areas of cockpit mounted Liquid Crystal Display technology and ground based engine test facilities. The use of engine and airframe health monitoring is now recognised as having many benefits, particularly in the areas of on-condition maintenance and module failure prediction. MCD confidently expects to be involved in producing health monitoring systems for other aircraft programmes in the near future.



## NEW CONTRACT

## Engine Systems

This July, Monitoring and Control Division was awarded the contract to produce the Automatic Data Processing (ADP) system for the RAF Pegasus Engine Test Facilities.

This award continues the history in MCD of supplying data acquisition and processing systems for the gas turbine engine test facilities in service with the Royal Air Force. The Division currently has systems in daily use aiding in the testing of Adour engines for the Jaguar aircraft, and RB199 engines for the Tornado.

This new contract will result in the supply of two ADP systems to be installed during 1990 and 1991 in the engine test facilities being built for the RAF by Cullum Detuners Ltd.

The systems will aid the operator in testing the Pegasus engines by perform-

## NEW CONTRACT

Have a look at the Engine... the Eng... was pro... the our... pro... to has... an... qui... do... will... RR... mo... the... aw... tion... un...

## Test for RAF

continuous data acquisition and display, calculation of performance data, and by simplifying the operator through the engine test procedure and assessing the engine's performance. The system software is to be written in ADA and the team will utilise MCD's stem 270 data acquisition

**Press!!!**  
 Dare in the final stages of gaining a contract to supply data acquisition and display system for an F-16 engine facility to be built for the British Air Force. This facility will have a multi-line type test capability, as such the common acquisition system has a capability of dealing with various combinations of tests.

**NEW CONTRACT**

## MAGNUS MAINTENANCE CONTRACT AWARD

MCD's Offshore Projects Group at Nailsea has recently been awarded the maintenance contract for the ongoing service and repair of subsea control system equipment for the BP Magnus North Sea development. GEC Avionics' first venture into the subsea control business, in 1979, was to supply as a sub-contractor the electronics for the control systems for the Magnus Field which has been operating since 1983. This maintenance contract for the entire control systems was won in competitive tender against

the original system prime contractor. The service and repair work will be carried out principally at the GEC MIMCO facility in Aberdeen supported by engineers out of the group at Nailsea, with support on the Magnus platform and installation vessels as required. This award has since been followed up with a similar contract to conduct the future service and repair work for the BP 'Don' field equipment, marking further inroads of the group into the offshore oil business.

**ON SCHEDULE**

## BP/BRITTOIL DON PHASE I NEARS COMPLETION

The Division's first major prime contract for subsea controls equipment for the BP/Britoil Don Field is now nearing completion.

Following contract award in February 1988, the group has designed, manufactured, integrated and tested all the deliverable equipment which is now being commissioned by our engineers on the Thistle Platform in the North Sea. The project schedule, which included significant critical milestones, demanded that initial equipment delivery was made by August 1988 for the manifold mounted subsea hardware; system tests were completed by February 1989 and the GEC Avionics equipment ready for a land-based integration test with the subsea christmas trees by March 1989. All these milestones were duly achieved.

The equipment will control three oil wells (christmas trees) located on the sea bed in 170 metres of water some 17 km distant from the Thistle Platform, the second largest offset distance in the world! Valves on the christmas trees can be controlled and pressures, temperatures and valve/choke positions monitored from the 'Master Control Station' located in the control room on the Thistle Platform which communicates to 'Subsea Control Modules' located on the christmas trees. Hydraulic power for valve actuation and electrical power are fed to the christmas trees from

additional equipment on the Thistle Platform also supplied out of Nailsea. Having met the require-

ments of the Don contract the group is currently active in pursuing further projects to build upon this success.

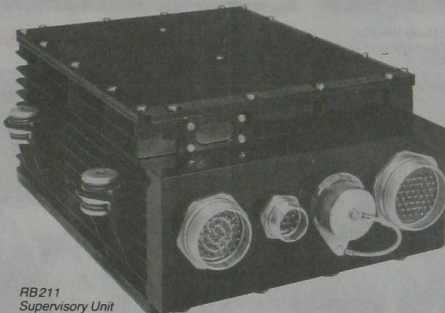
*The Master Control Station for the BP/Britoil Don project, with Senior Applications Engineer Chris Moseley in control.*



*Rod Mayall, Trials Engineer, is checking the installation of the GEC Avionics subsea control system on the National Oilwell 'Christmas Tree'.*

## RB211 SUPERVISORY

you ever flown in a Boeing 757 fitted with RB211 engines? If so, you know that the RB211 Supervisory System supplied by MCD. This system, which began in the 1970s jointly between GEC and Lucas, has evolved over 500 units on RB211 engines and to date it had any in-flight failures which have resulted in the engine to be shut down. This reliability together with the performance of the RB211 has resulted in customers choosing MCD. In July MCD was awarded a further production contract to supply 94 units valued at £1 million.



*RB211 Supervisory Unit*

**UNIQUE AWARD**

## American Quality Award

Nine years ago, the American aircraft company McDonnell Douglas contracted MCD to supply a motor driven True Mass Fuel Flow Transmitter for the AV-8B aircraft (the US version of the Harrier jump jet). Following on from this initial contract, MCD have manufactured and delivered three hundred and forty transmitters, with a total option for about 400.

In recognition of the supply of high quality goods and for adherence to programme requirements, MCD were designated a McDonnell Douglas Preferred Supplier Quality Team member. This effectively delegates McDonnell's quality assurance acceptance of their transmitters to GEC Avionics MCD prior to shipment.

On 9 June of this year, McDonnell Douglas Aircraft Company presented GEC Avionics MCD with the

Preferred Supplier Quality Team Award, in recognition of high quality and per-

formance on the AV-8B programme. McDonnell Douglas pointed

out during the presentation that it was the first such award to a UK supplier.



*Left to right: Peter Brown, Peter Hewlett, Bob Teaham (McDonnell), Les Asdown, David Hall.*

## "GEC Avionics and the science curriculum"

This was the title of the training course run on the company premises and attended by fourteen science teachers from Medway secondary schools on 14-15 June, 1989. The initiative was a first for the county in that the course design, tutoring and objectives represented a true partnership between local education and industry. The Training Department worked with David Webster from KCC's Schools Curriculum Industry Partnership (SCIP) in the design of the course, which was launched as an official teacher training course.

During the course, training and divisional staff introduced the teachers to important company issues such as work organisation and finance and the scientific principles underlying avionics technology. The teachers identified areas of particular interest to the development of their curriculum materials and met with engineers in divisions on day two of the course, in order to identify problem solving exercises they could develop. Between the first part of the course and 5 July, the teachers made further contact with divisions to work on the curriculum material development and were very pleased with the co-operation and welcome they received from engineering departments.

On the second part of the course, teachers reviewed their progress and most had identified subjects for development of curriculum material. Rizwana Shelley from Walderslade High School for Boys had worked with Linda Mose, Senior Development Engineer with ADD, to develop a working model of a head-up display which will be used in the classroom.

Pupils will learn how to evaluate and correct faults such as distortion of image. Her plan is to pilot this exercise in the autumn term with fourth year pupils. Other subjects being developed for the classroom include the design of a simple sonar system and an introduction to the subject of velocity and acceleration as considered in the principles of flight.

Also of significance are the methods the teachers will be using to teach these

subjects. Rather than relying on traditional 'chalk and talk' methods, there will be particular emphasis on the use of problem-solving exercises, whereby pupils work in teams on practical tasks. This represents a shift in

emphasis, in line with the National Curriculum, and is particularly welcomed by industry as it simulates how engineers work in the project environment.

It is hoped that this initiative will lead the way for further

such courses in North Kent and will demonstrate to schools and industry how the two can successfully co-operate, to enhance the development of school pupils who may become the engineers of tomorrow.



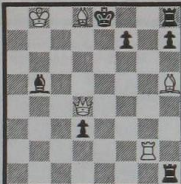
Teachers from the course, seen here with Richard Hale, Senior Training Officer and David Webster, SCIP Co-ordinator for North Kent, pictured centre, prior to visits into divisional engineering departments.

### Teachers and Schools Represented

Mary Buuttjens	Warren Wood Secondary School for Girls
Rose Chesham	Chapter School
Tim Darge	The Robert Napier School
Steve Edwards	St. John Fisher School
Colin Field	Chatham Grammar School for Boys
John Irving	Rainham School for Girls
Ian Lanceley	The Westlands School
Vic Mietkowski	Rochester Grammar School for Girls
Viv Webster	Rochester Grammar School for Girls
Jackie Page	The Howard School
Alison Parsons	Rainham Mark Grammar School
Rizwana Shelley	Walderslade Secondary School for Boys
Gordon Strevens	Rede Secondary School
Paul Trickett	Temple Secondary School for Boys

### CHESS PROBLEM

White to play and mate in two moves



Solution on Page 8

## Obituary

We have heard with regret that **John Lovell** passed away on 26 March 1989. John joined the Company in 1953 and worked in the old Aviation Division and MAC Division before moving to CQD in 1972.

As Section Leader he developed the now successful Electrical Repair facility in CQD. He always encouraged apprentices and developed their repair skills necessary for the ever advancing technology of electrical measuring instrument design. He left the Company in 1980 to early retirement. He leaves a widow and son.

From CQD

**Alan Smith** of AS&R division died on 3 June at St. Thomas' Hospital, London. Alan had been with the Company since 1968 and will be greatly missed by all his friends and colleagues. His wife Betty also works at GEC Avionics, within GSD.

**Bill Hobson** died on Saturday, 20 May, aged 78.

He started with Swift and Swallow in 1936 and transferred to Rochester in 1947 working in ACD and TACD. He joined Fuze Division in 1964 (Materials Controller). He retired early in 1973.

Tony, his son, works in AS&R.

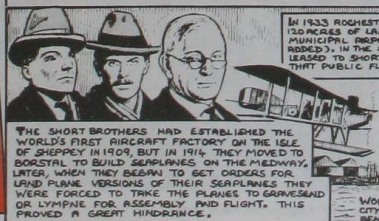


Colin Field from Chatham Grammar School for Boys and Alison Parsons from Rainham Mark Grammar School, learn about products of Guidance Systems Division from John Stevens and Andrew Saunders. This will assist them to develop curriculum material on the subject of forces and acceleration.

## Rochester Airport

by Arthur Prosser

The first of a series of six 'strips' which outlines the history of the Airport. It first appeared in the "Kent Messenger" and is reproduced with their kind permission.



IN 1933 ROCHESTER CITY COUNCIL PURCHASED 120 ACRES OF LAND FOR THE BUILDING OF A MUNICIPAL AIRPORT (LATER MORE LAND WAS ADDED). IN THE SAME YEAR THE LAND WAS LEASED TO SHORT BROTHERS ON CONDITION THAT PUBLIC FLYING RIGHTS WERE PRESERVED.

WORK ON THE FIELD WAS CARRIED OUT BY ROCHESTER CITY COUNCIL EMPLOYING MEN WHO WERE 'OUT OF BENEFIT' DURING THE DEPRESSION.



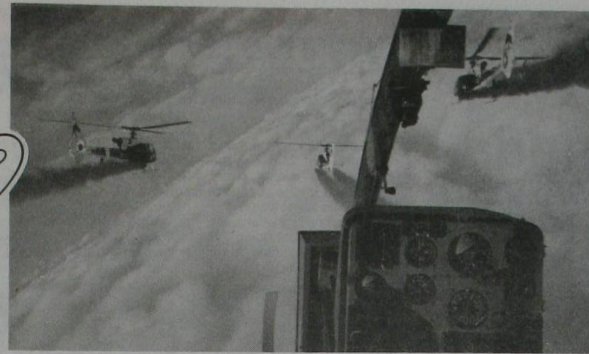


The SHARKS are the Royal Navy's helicopter display team. The team has seven members including six Qualified Helicopter Instructors, whose task is to train pilots for the front line Squadrons of the Fleet Air Arm.

The helicopters are highly manoeuvrable Westland-Aerospatiale Gazelles, popular with pilots because of their high speed and agility.

The team are all volunteers and devote a great deal of their spare time rehearsing and improving their display during the spring.

The SHARKS display is an eight minute sequence of close formation flying and breath taking opposition manoeuvres, bringing the rotor blades to within fifteen feet of each other at closing speeds exceeding two



hundred miles an hour. They are one of the few helicopter display teams in the world and can be seen in action at most of the UK summer

air shows.

On Friday 16 June the Sharks brought their display to Airport Works, where the team's performance near

the Car Park was described by their Manager, Lt. Ted Buckett RN.

GAV's involvement is that Maritime Aircraft Systems

Division is proud to sponsor 'The Sharks'. Over several years MASD has forged links with RNAS Culdrose, home to 'The Sharks', through the supply of lightweight acoustic processing equipment (LAPADS) for the Royal Navy's highly successful anti-submarine helicopter - the Sea King Mk5.

The visit was also a preliminary to 705 Squadron's participation in the 1989 British Open Helicopter Championship, which took place late in June. For that event, GAV was represented by Neil Baker, Project Leader in MASD, who has written the following account.

## THE ROYAL NAVY 705 SQUADRON Defence of the British Open Helicopter Championship

The Royal Navy 705 Squadron provides team members for the SHARKS helicopter display team that visited Rochester in the second week of June. In addition to manning the SHARKS, 705 Squadron also releases two crews (Pilot and Observer) to the annual British Open Helicopter Championships. The crews have an excellent record at these championships, having won the event for the last five years. This year GEC Avionics enabled the crews to defend their title by sponsoring the two crews:

- 1) Lieutenant Billy Campbell (Pilot);  
Chief Petty Officer Aircrewman Tony Dunmore (Observer)
- 2) Lieutenant Mike Swales (Pilot);  
Petty Officer Aircrewman Peter Leonard (Observer)

and their ground crew.

It was with this information in hand that I set off to Ragley Hall, Alcester (near Stratford upon Avon), Warwickshire to represent GEC Avionics.

Ragley Hall is a large stately home set in a commanding position overlooking the Warwickshire countryside. The British Open Helicopter Championship is held here every year, overlooked by Ragley Hall itself. The competitors come from the commercial world with company helicopters and privately owned helicopters, and the military. This year's event saw thirty competitors comprising eight Army teams, two Navy teams, one RAF team and nineteen private/company Aircraft, ranging from the small Robinson to the Westland Lynx.

The Championship comprises three events run over two days, Saturday and Sunday.

On Saturday the team compete in a navigation exercise with timed arrival,



Neil Baker and the four aircrew in front of one of the Gazelles, with their Trophies.

something similar to a treasure hunt. Unfortunately for both Navy crews they made mistakes and ended the day with Lt. Mike Swales in 9th place and Lt. Billy Campbell in a disastrous 18th.

Sunday saw the start of event two, the precision flying event. The event is composed of a number of obstacles which the teams must negotiate with a bucket full of water suspended on 30ft of rope attached to the helicopter. The pilot is unable to see either bucket or obstacles and is directed throughout by his observer. The crews must complete the course within a six-minute time limit setting the bucket down on a target. The water remaining in the bucket is also measured and taken into consideration when scoring. The first obstacles were two gates, 6ft high and 2ft wide, the object being to

pass the bucket through the gate. The second obstacle was an animal pen, the object being to position the bucket within the pen and execute a 360 degree turn. The third obstacle was a hoop 2ft square with a 6 inch section missing at the top set

8ft high, the object being to pass the bucket through the hoop. The fourth obstacle was a set of poles with discs on top, the object being to pass the bucket between the poles and under the discs. The fifth obstacle represented a 2ft skylight in a roof

with a target below, the object being to pass the bucket through the skylight and on to the target. When the bucket hits the target the event is complete.

Due to the skills required by search and rescue crews, both Royal Navy crews were confident of attaining a good score. Their confidence was rewarded with Lt. Billy Campbell finishing first with 662 points and Lt. Mike Swales with 596 points. The closest opposition was an Army crew with 490 points. This excellent result put paid to the poor performance of the previous day and brought both teams back into contention. Lt. Mike Swales 1st and Lt. Billy Campbell 3rd prior to the last event, with a private Robinson splitting the two Navy teams.

The last event is impromptu and is designed to be visually entertaining, giving excitement to both spectators and competitors. The object is to test the skills of the crews in an unpractised situation. Half an hour prior to the start of the event the crews are briefed, this year's event comprised a start line with four target boxes decreasing in size and positioned at 50ft intervals; a bean bag must

be dropped and land within the box to score. The helicopter must be flown above 100ft and landed exactly 60 seconds after the start. Points are allocated - 50 for the first target and increasing by 50s to 200 for the last. 250 points are available for landing exactly on the 60 second mark and 50 points are deducted for every second off.

The Navy and Army crews did not like the event because the outcome was too dependent on luck, but after a review the event stood.

As the event started we did not realise how nail-biting the finish would be! Both Navy crews hit two targets and landed on time, obtaining 400 points each. The Robinson hit three targets and landed on time, unfortunately for the pilot it was ruled that he flew below 100ft and his target scores were halved resulting in a score of 425 instead of 600.

This left Lt. Mike Swales and PO ACMN Pete Leonard in first place, the Robinson in second and Lt. Billy Campbell and CPO ACMN Tony Dunmore in third. The Robinson pilot appealed against the ruling and the judges conferred for what seemed an eternity. The decision stood and the results were posted.

The second crew from Royal Navy 705 Squadron had successfully defended their title for the sixth year. I am sure that I speak on behalf of all of GEC Avionics, in congratulating Lt. Mike Swales and PO ACMN Pete Leonard on their victory.

Mike and Pete will now go on to represent the Navy at the World Helicopter Championships to be held in Paris from 5th to 10th September. Again on behalf of all at GEC Avionics, we wish them every success in this forthcoming championship.

Neil Baker  
MASD



In front of Ragley Hall.

  
**Air Canada**  
**INDUSTRY SAILING**  
**CHALLENGE**  
 1989

On July 3, a team representing GAV slipped their mooring at Hamble Point Marina to compete in the Air Canada Industry Sailing Challenge. This is an account of the event, from Eric Fosbeary, Team Manager.

The Air Canada Industry Sailing Challenge is a series of races open to industrial and commercial concerns. GAV management became aware of the event and decided to enter a team for 1989 and to sponsor a team for a further two years. The event provides the crews with the opportunity to take part in a 24 hour offshore race using matched boats. The yachts, 32ft Fulmars, were provided by Westerly Sea School and therefore no particular boat would have any advantage – all were kitted with the same gear and equipment.

The planned course was to circumnavigate the Isle of Wight twice within a 24 hour period, weather permitting, in an anti-clockwise direction, the start and finish line being off Cowes.

The event was held during the period June 24 to July 4. Five heats were organised, each containing ten boats; the first two boats from each heat were to compete in a Grand Final to be held in late July. Companies who entered the challenge included Guinness, Barclays Bank, Ford Motor Co., Plessey, Racal, British Telecom, and Marks and Spencer.

The GAV team were drawn in the last heat, due to be sailed on July 3/4. The previous heats had all been shortened to one lap of the island because of either no wind or very rough conditions, such were the vagaries of the weather that week. Nonetheless, in the previous heats all the strong favourites had claimed their places in the final – all had sailed in the event in previous years – did they know something the new boys didn't?

First timers GAV represented by Kate Twyman (skipper), Don Short, Curt Bennet, Ray Docker, Keith Williams and Paul Barratt, cast off the mooring of their allocated yacht "Lullaby" at Hamble Point Marina for their trip into the unknown. A skippers' briefing had been held in the morning to provide weather information and to provide the crews with the latest on the racing rules.

The boats were motored out to the start – an imaginary line between the Royal Corinthian Yacht Club and an Admiralty buoy in Cowes

Roads. At 11 am the gun was fired and the race began, the weather was fine with a Force 2 easterly and a forecast promising good conditions for the next 24 hour period. Almost at once the GAV boat was in trouble due to a jammed Genoa sheet (rope), crossing the line in seventh position (in this particular heat there were eleven boats competing) and holding this position past Yarmouth and Freshwater.

As the Needles were sighted a large ship heading for the Solent was also spotted and as the profile became clearer the familiar shape of the QE2 emerged. The fleet passed down her starboard side, when one of the crew was heard to remark "I think I've pinched her wind!" A very impressive and most unforgettable sight.

At the Needles a crucial change of course was required. It was here that Kate's local knowledge of the Solent and its treacherous tides came in useful (Kate regularly sails in the Solent). The other boats in the fleet left their tack until the mark – a buoy off the Needles – and were swept towards Poole Bay by the tide racing along the back of the island. Kate had realised this possibility and ordered the crew to tack before the buoy, and by the time the mark was reached we were sailing in the right direction. The resultant effect was to promote the boat to third position.

Heading now into the wind called for the boat to be tacked (a zig-zag course that enables the boat to make progress to windward). This was needed all along the "back" of the island. The wind was now very fresh and the crew were averaging about 6/7 knots. Closing the coast at this speed takes some nerve and a careful watch on the echo sounder was required.

However, it was when Lullaby banged into a sand bank with the echo sounder reading 2½ metres (on a boat drawing 1½ metres) that it was obvious to the crew that even more special attention had to be paid as the calibration of the instrument was in some error.

After several heart-stopping bounces she came clear, and by the time the boat got underway again, after checks to make sure all was in order below, it became evident that the boat had lost two places and was now running fifth. The crew now became extra cautious past St. Katherine's light and the infamous Bembridge Ledge.

Eventually when passing No Man's Fort off Ryde the crew sighted one of the known leaders fast on Ryde Sand – perhaps Lullaby wasn't the only boat with duff instrumentation!

About this time dinner was served in an increasing wind from the east, and with the boat racing along under spinnaker, into a beautiful sunset. The scene was idyllic. The darkness eventually engulfed the boat doing 7/8 knots and still holding fourth

position heading towards the Needles for the second time. The hours of darkness thankfully passed without incident; with only the Needles and St. Katherine's lights for company the boat was still being pushed, without reference to the other competitors.

Dawn broke on July 4, remarkably with the GAV boat and the rest of the fleet still holding the same positions as when the dark hours overtook them, but now the wind was becoming very fluky and

light. All the leading boats could still be clearly identified and, the crew believed, catchable. Enter Lady Luck; in Cowes Roads three miles from the line the wind dropped off completely, and the entire fleet came together strung out in a rough line across the Solent – it was now a question of where the wind would fill in from. The answer was a short time coming – picking up from both land masses, the island and the mainland, the boats

on both edges of the line were carried forward first. Lullaby was finally underway in eighth place and in the dash for the line the GAV boat managed to pass one of the other competitors to achieve seventh place and just failing to pinch a further place on the line.

The final statistics in fact show just how hectic the final half hour was; after 23 hours of racing the first ten boats finished within 31 minutes of each other, with 32 seconds covering the fourth to ninth boats. The crews were exhausted as very little sleep had been had through the darkness hours, and slightly disappointed that Lady Luck and her daughters had finally dealt them such cards.

After the racing the crews motored into Cowes and were entertained in the Royal Corinthian Yacht Club by Air Canada, who provided lunch and beverages. The presentations and speeches were made and the winners British Telecom (Northern) were congratulated. Finally, the competitors had one last impromptu fling – a motoring race back across the Solent to the Hamble Point Marina, which I'm glad to report GAV won.

Some comments overheard immediately after the finish: Kate and Paul: "I'd do it all again tomorrow".

Curt and Ray: "I'd do it all again next week".

Keith: "I'm thinking about it".  
 Don: "Never again". Later revised to "It was great, I'd love to have another bash".



Our team aboard their boat at Hamble. (Left to right): Curt Bennet (Materials Control, CMS); Keith Williams (RST, CMS); Kate Twyman (FCD Software Engineering); Paul Barratt (MASD Software Engineering); and behind, Ray Docker (GSD Engineering); Don Short (Audio Visual Unit).

## BLACK WATER '89

The Marconi Sailing Club have been trying to win the Colwyn Stone Challenge Trophy since it was first awarded in 1981. However, each year Rochester have managed to win by a mixture of good luck and good sailing. On Saturday, 24 June 1989, the luck finally ran out. On a warm sunny day the combination of a fickle wind, a strong tide and a well sailed single handed Mirror finally managed to do what world champions, fast boats and national level sailors had failed to do: Damian Boreham won the Colwyn Stone Trophy for MSC. It was like John Bertrand winning the America's Cup for Australia.

The MSC team was Ron Greygoose in a Solo, John Weedon in a Laser, Mike and Maggie Boreham in a 420 and their son, Damian, in a single handed Mirror. The Rochester team was Richard and Sharon Stone in a Wayfarer, Christopher and Alexander Jibb in a Mirror and Peter and Gordon Belcher in Lasers. On paper it was a strong team, Richard had won the trophy four times, Peter had won it three times, Gordon had sailed in the event for fourteen years whilst Christopher showed great promise last year.

The wind was light and from the West, the tide was

coming in from the East. The Rochester team made a good start and on the second leg were in first, second and third places. However, the wind stayed light and as the fleet ran down wind against the tide the single handed Mirror was too close for comfort: Damian somehow managed to control three sails and kept close to the fleet, staying out of the tide, to win. Rochester packed well with Peter Belcher second, first on the water but just eight seconds behind handicap, Richard Stone

was third, Gordon Belcher fifth and Christopher Jibb sixth. At lunch Rochester were 4¼ points ahead and ready for the sea breeze to come in and blow the single handed Mirror's chances.

It was not to be; the wind for the second race was even more fickle. After a long beat with the tide the fleet had to run against it along the island shore; John Weedon, now in a Kestrel crewed by Lucy Boreham, pulled away and appeared to have an unassailable lead. Peter Belcher and Richard Stone were chasing him hard and Gordon Belcher was trying to keep Ron Greygoose under control. Damian Boreham

was out in the tide and appeared to have blown his chances.

Once again the final run against the tide changed everything. The boats at the front of the fleet sailed into a hole with Peter Belcher and Richard Stone overtaking John Weedon; then the wind changed direction to the East and freshened as belatedly the sea breeze came in.

Peter and Richard were first and second over the line but the slower boats were now sailing in a good breeze and easily beat their handicap. Damian won the race with Ron Greygoose second (despite almost capsizing at the last mark). Rochester's placings were three, four, five and eight with MSC placings one, two, six, seven, thus MSC won the second race by 4¼ points.

Overall Damian Boreham won the Colwyn Stone Challenge Trophy with two firsts, whilst Rochester retained the Midway Cup for the team event.

Again a very pleasant visit with good, interesting sailing, good company and good food. If the event is to continue it does need more support. If you are a dinghy sailor and would like to sail at this excellent club on good water, please let me know. Each year the event takes place in late May or June and everyone who goes enjoys a fine day out.

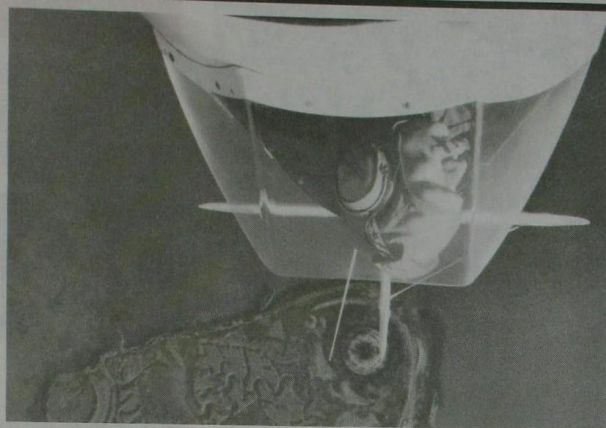
Gordon Belcher

Results				
		Handicap	1st Race	2nd Race
<b>Rochester</b>				
R & S Stone	Wayfarer	(116)	3	3
C & A Jibb	Mirror	(146)	6	8
P Belcher	Laser	(114)	2	4
G Belcher	Laser	(114)	5	5
			16	20
<b>Marconi Sailing Club</b>				
R Greygoose	Solo	(122)	4	2
M & M Boreham	420	(115)	7	7
D Boreham	Single Handed			
	Mirror	(144)	¾	¾
J Weedon	Laser	(114)	9	-
J Weedon & L Boreham	Kestrel	(110)	-	6
			20¾	15¾
Totals:	Rochester	36	MSC	36½
Individual Winner:	Damian Boreham			
Team Winner:	Rochester			

# THE GENTLE ART OF AEROBATICS

On Saturday, 20 May, Kevin Vincent of CACD won the Elwyn McAulley Trophy in the aerobatic competition held at Little Snoring, Norfolk. He was flying the Stampe aircraft operated by Three Point Flying and it was a very considerable achievement to win in that aircraft, which is basically a derivative of the Tiger Moth trainer, against opposition from Pitts Specials, CAP 10s and other modern, purpose-built aerobatic aircraft. Kevin started aerobatic flying about three years ago and has reached this standard with remarkable speed. Previous winners of this competition include pilots who were later to become well known at International Competition level – Neil Williams, Brian Lecomber, John Harper, Barry Tempest.

Additionally Tim Hall of CACD (currently seconded to MMA at Farnborough) and Steve Gibbins of MADS competed successfully. Tim Hall was placed third in the Beginners' class and having received his com-



Kevin high above the Medway estuary. It's not a codfish behind/below him, it's Hoo Fort on the island in Gillingham Reach.

petition licence went on to compete at Standard level in the McAulley competition, while

Steve Gibbins in his first competition was placed twelfth at Beginners' level. Both Tim

Hall and Steve Gibbins were trained in aerobatic flying by Kevin Vincent.



Kevin Vincent is a Senior Systems Engineer in CACD, he joined GAv in 1978 with a keen interest in flying, having obtained a gliding licence whilst at University. In 1980 he joined the GAv Company Flying Scheme where he has obtained his Private Pilot's Licence and is working on getting a rating for Instrument Meteorological Conditions.

In 1986 an aerobatic biplane became available to Flying School members. Following an initial trial Kevin was hooked. Aerobatics was much more fun than "straight and level!"

Primarily self-taught, Kevin has worked at aerobatics over the last three years culminating in winning the Elwyn McAulley Trophy, which he is proudly displaying here.

On the work front he has been involved in the design and development of a passive map referenced terrain following system. This long standing research programme has recently culminated in the award of a Tornado Mid Life Update contract for the world's first production map referenced Navigation and Terrain Following System.

## Basic Training

Those readers who observe the comings and goings of aircraft at Rochester will have noticed a brown/orange/white multi-coloured biplane registration G-ASHS. This aircraft, a Stampe, is owned by Three Point Flying Limited who operate on a part-time basis from an office at the southern end of the Main Hangar and is used to provide training in the gentle art of flying a classical tailwheel aircraft and in aerobatics.

Most pilots who learn to fly at Rochester or, for that matter, almost any other aerodrome, are trained in modern nose-wheel aircraft. A modern basic training aircraft is undoubtedly easier to fly than a classical biplane – learning to make a smooth transition from air to ground is usually the most difficult trick for a student pilot to master and the nosewheel layout results in an aircraft which is easier to land and to control on the ground. However the effectiveness of the controls of a modern training aircraft is usually restricted by its design to ensure that even a fairly ham-fisted student pilot is unlikely to get the aircraft into a position from which he cannot recover or which may over-stress the aircraft structure.

Most student pilots after obtaining their Private Pilot's Licence continue to fly aircraft which are similar to that on which they were trained but with more powerful engines, greater speed and more seats. Some, however, wish to explore other types of flying and become interested in flying a totally different and more manoeuvrable aircraft; the experience of learning to fly the Stampe will certainly improve their handling of other aircraft – the Stampe does tend to expose the inaccuracies of one's flying.

The first stage of learning to fly the Stampe is to learn how to taxi to the runway. Unlike a nosewheel aircraft from which the pilot can see over the nose rather like a car driver can see over the bonnet, a pilot of a single-engined tailwheel aircraft, be it a Spitfire or Stampe, cannot see where he is going when the tailwheel is on the ground. After some practice the idea of weaving the nose and looking along the side of the engine is mastered and flying can start. Take-off is different – as the tail comes up to the flying attitude the aircraft tends to swing to the right for various good and inescapable reasons so a fair amount of rudder is required to stay on the runway. Landing also calls for some skill; the objective is to cause the aircraft to run out of flying speed, ie to stall, at a height of less than one foot above the correct point of the runway. After some more practice the penny drops and the pilot is allowed to make his first solo flight in a tailwheel aircraft.

It is only during this stage of training that the Stampe is seen around the Rochester Aerodrome circuit and it is seen or heard by fewer people than the more usual Robin aircraft because it is lighter, can climb more steeply and it is so manoeuvrable that circuits can be kept very close to the airfield.

After learning to land the aircraft, the pilot can proceed to aerobatic flying when he finds out that this aircraft is almost as happy inverted as right way up (after some practice, so is the pilot), does not mind being pointed vertically up or vertically down and spins quite well. All the aerobatic training takes place well away from the populated areas, usually over the River Medway or over some unpopulated country and at a height of at least 2000 feet. These arrangements have obvious safety benefits and minimise any noise heard on the ground. However they also

ensure that any mistakes are not too embarrassingly public!

Aerobatic flying should perhaps carry a health warning – it can be addictive; in the course of three summer seasons Kevin Vincent of CACD, who is a member of the GAv Flying Training Scheme, has mastered aerobatics to the extent that he has passed through the Beginners' level

and has been able to obtain very good results in Standard level competitions against far more powerful aircraft built specifically for aerobatic flying. Kevin's recent success in the Elwyn McAulley Trophy at this level, reported above, has been a very notable milestone. Kevin is also training other qualified pilots to match his own high standards.



The Stampe

## The Aircraft Itself

The history of the Stampe design and of G-ASHS in particular is worth a mention. The Stampe looks a bit like a Tiger Moth mainly because it evolved from the Tiger Moth. In the late 1930s Tiger Moths were being built under licence by Jean Stampe in Belgium and he decided that although the type had a lot of good points it did suffer from some very dreadful ailerons which, for the technically minded, produced large amounts of

adverse yaw. So he re-designed the aircraft; the main change which he made was to reduce the wing span and fit ailerons to the upper wing as well as to the lower wing; this allowed the ailerons to be smaller and better balanced, and as a result the handling characteristics of the Stampe were much more pleasant than those of the Tiger Moth. At the same time brakes were fitted and the Tiger's leading edge slat was deleted. The history of

G-ASHS in particular is unusual – it was effectively a new aircraft in 1984! G-ASHS was first built in 1946 but little is known of its history until April 1961 when it was entered on the French Civil register as F-BGFN. It remained on the French register for only quite a short period until February 1963 and by May 1963 it had been overhauled at Croydon Aerodrome, re-registered as G-ASHS and was subsequently operated by the Tiger Club. In 1965 the Renault engine was replaced by a zero-time Gipsy Major 10-1 and the aircraft became a SV4-C-G. At the same time G-ASHS was adapted for

competition aerobatics by the removal of all the front cockpit equipment and the installation of a fuselage fairing. As a single seater it was flown extensively by Neil Williams who was flying it at an air display at Biggin Hill in 1975 when it was very badly damaged in an accident; in the words of the commentator, "Neil Williams has disappeared behind the hangar... and left it there!". Neil was unhurt but the wreckage was all but abandoned until in 1980 the Stampe factory in Belgium was being closed down and sufficient parts were found to build another aircraft. To have a new aircraft would have led to many administrative and engineering problems – the rules having been different in 1945. So G-ASHS came to life again in 1984 and was rebuilt by Rollasons at Redhill. The log book entry records that it was fitted with "...new wings, new fuselage, new control surfaces..." and the front cockpit was re-installed. After the rebuilt G-ASHS was acquired by Three Point Flying and operated from Shoreham and Goodwood until in January 1986 it moved to Rochester. The log books record 3200 hours total time with 900 hours since rebuilt.

The story continues... In our next issue Kevin will describe the events of a typical competition day.

# STAFF ELLIS RETIRES

Company Design Consultant **Staff Ellis** has appeared in the pages of GAv News on a number of occasions as he added to the tally of distinctions in his illustrious and inventive career with the company. Notable among these were his award of the much-prized Bronze Medal of the Royal Aeronautical Society in 1980; a citation in 1982 with other company engineers by the influential Aviation Week and Space Technology magazine as having made among the world's most significant technological achievements (LANTIRN HUDs); and receipt of an award in the Prince of Wales Accolade for Innovation and Technology, during 1983 (NVGs). This award is now further celebrated by the selection of the 'Cats Eyes' NVG for all US Navy and Marine Corps tactical aircraft.

In 1984 Staff was selected for the Lord Nelson Gold Medal for Technical Excellence for his outstanding innovations in mechanical and optical design. Over the years, he has been directly responsible for many highly successful designs currently flying in aircraft throughout the world, including new types of head-up and helmet-mounted displays, night vision goggles,



Staff Ellis receives one of his many gifts, from his lifelong friend, colleague, and "boss" Jack Pateman.

holographic optics, fail-safe actuators, compact inertial platforms, fly-by-light controls for airships, and also viewing equipment for remote-controlled underwater vehicles.

Staff is, of course, particularly proud of his MBE, which he received in the New Year's Honours List of 1985. This was a fitting climax to what finally amounted to fifty years in the UK aerospace industry.

Staff arrived in this country from Melbourne in 1938, and after early years with Handley Page and Napier, joined Elliotts at Borehamwood in 1949, and the team being built up by Jack Pateman. In the early '60s he managed the Flight Automation Research Laboratory (then at the Flying School), and during that period his interest in hydraulic actuation extended to multiplex failure survival systems and

culminated in the quadruplex fly-by-wire successfully adopted in the Tornado.

In more recent years, Staff has concentrated on innovations in optical designs which have led to so much business for the company. Now the host of friends he has made over the years pay tribute to his distinguished career and wish him a long and happy retirement, with more time for his golf.

## BRIDGEWOOD ROUNDABOUT

*There is some progress on the Kent County Council deliberations on possible solutions to the greatly increasing traffic problems at the roundabout up Maidstone Road. Following the letter from the Highways and Transportation Dept. which we reported in December, GAv has now heard from the County Surveyor that proposals for improvements were reported to the relevant sub-committee in June, and the recommendations were accepted by County members.*

*In summary and edited, here are some leading points from the Report.*

Bridgewood Roundabout is the subject of severe peak hour congestion with delays of between 10 and 20 minutes in Walderslade Woods in the morning peak and in Rochester Road and Chatham Road in the evening peak. This situation has been the subject of a great deal of adverse public comment and both Rochester upon Medway and Tonbridge & Malling Councils are anxious to see appropriate road improvements.

At a meeting of this Sub-Committee in December, Members noted receipt of a petition from residents of the Bridgewood area who are concerned by the difficulty in crossing Maidstone Road in order to reach the bus stop on the west side of the A229. It was resolved that this matter be considered as part of an overall study into traffic problems in the area.

The roundabout carries a peak hour traffic flow of some 6500 vehicles and with the rapid development of the Walderslade area this flow is predicted to increase to some 9500 vehicles by the

year 2005. The section of the A229 between the roundabout and the M2 interchange (J3) currently carries in excess of 55,000 vehicles per day.

In connection with the construction of the new hotel adjacent to the site, developers have been required to widen Walderslade Woods Road to a dual carriageway on the approach to the roundabout. This work has been completed and offers some relief to congestion in Walderslade Woods Road through to Fostington Way, but this is not currently included in the County Council's capital programme.

In the three years to the end of February 1989 there have been two accidents involving pedestrians in the section of the A229 between the roundabout and the M2 Interchange (one serious and one slight). At the roundabout itself there have been fourteen personal injury accidents in the same period (one serious and thirteen slight). Of these fourteen accidents, nine have occurred during peak hour traffic

conditions which is indicative of the frustration caused by the current levels of congestion.

The Surveyor has examined a number of options for improving the junction and concluded there is a need for a phased strategy of highway improvements. In the short term there is a requirement for a relatively low cost scheme to relieve existing peak hour congestion and assist pedestrians crossing Maidstone Road south of the roundabout. The scheme shows a proposal for peak hour traffic signals on the A229 north and southbound entries to the roundabout, increasing the circulating width of the roundabout and installing pelican crossings on the A229 south of Bridgewood. This scheme would provide very good short term benefits with reduced accident and delay costs.

In the medium term as traffic flows increase he proposes a single carriageway north-south flyover with one lane northbound and one lane southbound separated by a double white line system. This scheme provides for dumbell roundabouts minimising the environmental impact of the flyover and avoiding land acquisition. This proposal would cater for the heavy north-south traffic movement along the A229 and enable pedestrians to

cross under the flyover thus reducing the present vehicle/pedestrian conflict.

He also mentions the likelihood of the A229 bridge over the M2 becoming inadequate in several years' time, which could mean a need for direct connection between the M2 (J3) and Walderslade Woods Road. The Ministry of Transport is to be pressed to consider this option as part of their studies for M2 widening. However, the level of north-south traffic movement warrants substantial improvements at Bridgewood Roundabout irrespective of any future alterations to the M2 interchange.

The peak hour traffic signals are recommended as a strong candidate for the traffic systems budget in the next financial year. No land acquisition is involved, and subject to the budgetary process the scheme could be operational in 1990. The flyover scheme will be dependent on Department of Transport supplementary grant because of its high cost, £2.5m, but is recommended for consideration for inclusion in the capital programme in about four years' time, i.e. to start construction possibly in 1993.

*Clearly we should be encouraged by the efforts being made by KCC to find the right way round this problem which affects so many of us.*

# Congratulations

## Some weddings in recent months

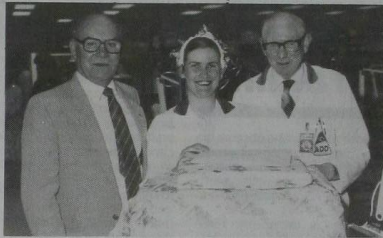
**Sue Marsh**, Deputy Divisional Manager of MASD, is now Mrs Sue Wood after her marriage to Mike, last April. Technical Manager Dr Peter Carrington gave

the division's best wishes. (And there is still only one Mrs Wood in MASD, as Jayne, Chief Engineer, is now known by her married name, Bryant.)



**Angela Gilbert**, Viewer in ADD, is seen here with Production Manager 'Curly' Childs and

Foreman Fred Edwards as they congratulated her on her marriage to Roger, in May.



**Dave Silsbey**, Technical Manager in ISD, has been able to congratulate three of his colleagues. **Nicola Waster**, Clerk Typist in Air Data Group, has married Sean Dicker. **Maria Thompson**,

Confidential Secretary, and **Kevin Swainson**, Development Engineer in Test Services, were married and have now emigrated to New Zealand - so have their parents.



Nicola Waster



Kevin Swainson and Maria



# 25 years' service



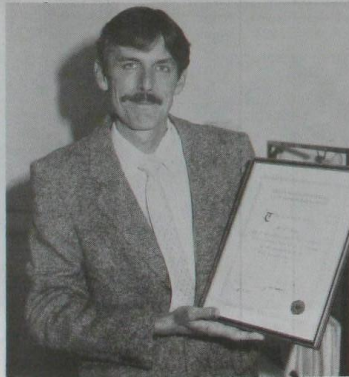
**Barry Smith**, Project Controller in CACD Production, has been in the 'Flight Control' divisions since he started with MACD as Mechanical Assembler. In 1966 he was promoted to Instrument Fitter, remaining in that job when the original FCD was formed. In 1975 he became Trainee Planner then Planner, and in 1979 was promoted to Project Controller, taking his present

position when CACD was formed. He has worked on most of the big projects, TSR2, Concorde, C-5A, EMAC, AMX, and Tornado. Barry has a very active interest in sport, being an ex-football referee and player of cricket for which he is now taking an umpiring course. He also plays golf. His wife Jen came in for his presentation.



**Brian Shoveller**, ex dockyard apprentice and with National Service and several jobs under his belt, first worked for this company in FID as Instrument Fitter, then transferred to IND. In 1973 Brian was made Foreman in charge of the Superclean room working on Jaguar and Nimrod platforms and NCS1 SRVs. In 1981 he also took charge of the Machine Shop, and in

1985 moved to the Towers Clean Room in charge of Gyro production. The end of 1986 saw a change to his present job as Section Leader, Production Control (Repair). Brian was Foremen's representative 1979-86, and has watching sport and gardening as hobbies. Here he is seen with his younger daughter Jane who is a Production Technician in CACD.



**Dave Phillips**, Chief Planning Engineer in ATED, first came to the south-east in 1962, since there was no work at his home in Hartlepool when he completed his apprenticeship. There was a short period with Elliotts, and GEC before the mergers, but his present 25 years started with Gear Division, who moved to Dartford a few months later. Back at Rochester, Dave came to ISD as Model Shop Technician, moved to CMS

and finally to ATED in 1973, as Trainee Planner. He was promoted to Section Leader in 1978 and his present post four years ago.

Dave's main hobby is running a junior football team, Borstal 88, which he also referees. Among his family, his son works in ADD, his daughter in CACD, and his brother-in-law in MASD. There was another 25-year celebration, that of his silver wedding to his wife whom he met in Personnel Dept.



**John Beetlestone** was in the Navy for 15 years as apprentice rising to Chief ERA, before joining the company as TA in TACD. Over his time here, John has become one of our leading specialists in special-to-type

Production Test Equipment, and is now a Senior Production Engineer in CACD. He received his gifts from Simon Frost who was Divisional Manager at the time.



**Tommy Carwardine** of WES Inwards Goods has been with the department since 1971 – before that he was with Common Services and Fishers, mainly as a Checker. Tommy was made up to Leading Hand Checker in

1976, Supervisor in 1978, and he has been Section Leader since 1986, becoming particularly involved with the computerised booking system.



**Ken Lark**, ex Dockyard apprentice and furniture salesman, joined Swift and Swallow in 1954 and was with Fisher Valves till 1964, but after a short break commenced his 25 years with AEID Model Shop. He then spent a further

period with Fisher before going to Gyro Division as Inspector – the post he now holds in GSD.

As hobbies Ken enjoys fishing, bowls, bat and trap, snooker, pool, and darts. Bob Ruggles made the presentation.



**Harry Foan**, after war service in the Royal Signals and running his own electrical repair business, came to MACD and worked on component reliability and selection in ERTS. In this 'Environmental' work he has built up an encyclopaedic knowledge of components and their engineering

problems, and he later made this directly available to the QA department. He is now Project Leader in FCD. Until quite recently his whole family (wife, son, daughter) worked for GAU but his son has now departed. Here, daughter Allison of ISD Tech Pubs joins in the congratulations.



**Dave Falkner** of CACD Contracts is reported many months after the actual occasion of his 25 years. Dave was one of the company's first-ever Commercial Trainees, in TACD, where the pilot for the present training scheme was run. After his 2 years' training he joined Cost and Budget in CACD but almost immediately was put in charge of a small transport department in TAC Production. At the time the division was delivering

bits for VC10, BAC1-11, and Concorde and this job continued until the first FCD was formed. The shipping department became larger and part of Contracts, so Dave had the chance of learning more about contract administration. Later when CACD was formed, Dave became Sales Office Supervisor, and in 1981 he became Contracts Officer to start a service and support group for Tornado. He became Assistant Contracts Manager last year.



Another Quality Technician Leading Hand completing 25 years was **Paul Bird**. Previously a Fitter in Chatham Dockyard, Paul began a long career in AS&RD working on

fuel flow systems, but has also been involved with the only piece of submarine equipment seen in the division. He has also built a grandfather clock, at home.



**"Little" John Townson** has been in AS&RD for all of his 25 years, and has worked on a wide range of equipment from helicopter systems to F-16 HUDs. In 1969 John was made up to Quality Technician and is now Leading Hand. As for his technical expertise he has become well regarded as a very good instructor, a quality reflected in the high standard achieved by many apprentices.

John received a presentation camera from Production and Repair Manager Ken Rhodes.



**Derek Beard**, Section Leader in charge of MASD's Calibration Section, first joined TACD after 12 years in the RAF, as Tester. By 1970 he became Foreman and transferred to ACD, which became MASD, but he spent five years in IND during the '70s. He has been back in MASD for ten years, and was promoted to his present position three years ago. Derek, in one of his less flamboyant outfits, received his presentation from Divisional Manager Alan Gallagher.



**Roy Coomber** has rather more than 25 years' service altogether, since he was with Aviation Division as an inspector for three years from 1960. He finally rejoined TACD as Inspector and his early years included several on-site at Poole and at Hayes, where he was Senior Inspector for AS&RD in the repair facility they set up to service British Airways. Roy

then became Chief Inspector in ACD, transferring later in that post to FCD. He later moved into Quality Assurance, and with the split of FCD he went to CACD, where he is now Principal QA Engineer. His expertise in the autopilot and autostabiliser area has been gained on a great many projects. Roy's leisure interests are mainly shooting and fishing.



**Colin Munro**, Senior Logistics Engineer in CACD, is another 'Flight Controls' stalwart, who when he started in TACD was engaged on Flight Trials on the VC-10 autoland system, then on the actual aircraft prototypes at Weybridge, somewhat adventurous at times. Next he took up development on Concorde autothrottle computers, reverting to VC-10 for the second phase of that programme, at Wisley and Weybridge. With the backing of that extensive experience Colin ran the VC-10 PDS activities, and with the formation of FCD

became member of a much larger PDS group, rejoining the Concorde project to conduct Qualification Tests on different systems. Since then his career has been in Qualification Testing and Quality Assurance, on a number of projects, and since the formation of the Logistics Group in CACD his activity has broadened to include all aspects of Qualification Verification, and he also acts as a consultant to FCD. Colin's inclination to travelling continues with his interest in caravanning with his family.

## Retirements

A 'picture gallery' of some of the people who have retired during recent months.

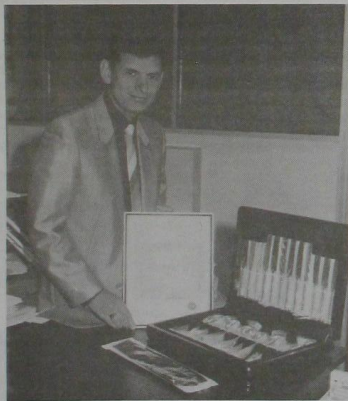


**Jerry Paternoster's** service with the company – just over forty years – was almost entirely in the Model Shop activities of the various divisions in the Flight Controls area, most recently CACD.

His first fifteen years were at Borehamwood, and he came to Rochester when the model shops moved in 1963. By 1965 Jerry was Foreman, a status he held for 20 years

during which he was a leading member of the Foremen's Association and later one of the two union representatives for those employees. In 1977 he had the honour of receiving the Queen's Jubilee Medal.

Jerry had a lifelong and active interest in cricket and football. Here he is seen with his wife Edna who was for many years in IND/GSD.



**Norman Martin**, now in ADD as Production Engineer, spent nearly 20 years in ATED as a Planner, later Production Project Controller and Engineering PAO. That was after his first three years which were in AS&RD on wiring, test, and inspection. Norman's recent work has been in establishing ADD's

surface mounting technology capability, specifically for the C-17 programme but now being implemented on many new programmes in ADD and elsewhere. Outside work, Norman has an active range of interests including caravanning, photography, running, gardening, and scouting.



**Dave Bennett** of ATED, promoted to Engineering Manager just before he completed 25 years, was once at Borehamwood in Radar Division. It was 1968 when he transferred to Rochester as an engineer in ATED, and by 1971 he had become Project Leader, working on the Seadart project. In 1974 Dave became involved in project definition studies for the

major MRCA contract, for which he was Project Manager responsible for system design 1976-1983. Since then he has worked on a number of projects and his recent promotion made him responsible for Logistics and the marketing of the engineering design support services. Leisure time includes running the Lower Halstow Scout group and some golf.



**Wyn Carruther** has retired after a great many years – around 20 – in the Canteen as Cashier. Here she is

seen with Manager Bill Gostling and her close friend and colleague Cashier Pauline Hayes.



**John Fenton**, Section Leader in GSD Estimating, retired in February after 20 years' service. Chief Production Engineer Kevin Forrest made a presentation.



**Pat Johnson**, in IND/GSD since 1967 and previously, from 1953, in Common Services, has been most recently Section Leader in Purchasing Dept., with over 20 years there.



**Elsie Pilcher**, Secretary to AS&RD's Field Service Manager Mike Andrews and 'mum' to about 20 engineers working throughout the world, retired after a total of 28 years at Rochester, of which half were in AS&R. In earlier days Elsie worked on Concorde proposals.



**Bert Pearson**, an ex-Rochester apprentice with Merchant and Royal Navy service also, was with Fisher Controls for many years before rejoining GAV as Security Guard. Since 1985 he has been Boilerman with WES; Works Engineer Don Freeman thanks Bert for his service.



**Les Smithers**, earlier in his 27 years was with FID and MACD, later has been Inspector and for the last 12 years Quality Technician in AS&RD. His friends bought him a bowls bag, presented to him by Colin Hayman, Assistant Production Manager.



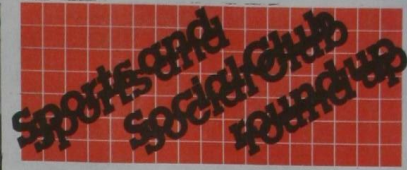
**Jean Majewski** has been in Accounts since 1971, and received the best wishes of all her friends and colleagues from Chief Accountant Brian Handley.



Design Draughtsman **Len Mears** received binoculars from AS&RD's Technical Manager Roy George, who had first worked with Len 19 years ago during an earlier period of employment at GAV, on Concorde. Again for the last 14 years Len has been in CACD and AS&RD, and is known throughout the company as one of Kent's longest serving football referees. Len will also continue his association with the Sea Cadets.



**Alec Langford** has retired from his position as Design Engineer in ATED.



## GAV/BP KENT CLUB SWIMMING SECTION

### St. John Ambulance Brigade

The section ran a St. John Ambulance Brigade First Aid (Public) Award at the club. Our thanks to Ernie Jones of MASD for organising and tutoring the course. All participants passed - Roger Carpenter, Vanessa Carpenter, Peter Eastwood, Connie Gilby, Dave Samuels, Lin Samuels, Michelle Daly, Cynri Moffett and Colin Newman.

### ASA Prelim. Teachers' Award

Congratulations to the following members on passing the ASA Prelim. Teachers'

Award: Shirley Atkinson, Zoe McDonald, Michelle Daly, Peter Eastwood, Lin Samuels, Dave Samuels and Barb Jamieson.

### RLSS Bronze Medallion

Congratulations to the following on passing the Bronze Medallion: Michelle Daly, Peter Eastwood, James Marshall and Nicola Holt.

### Adult Lessons

Adult lessons are at the club on Mondays, 8.15 - 9.30 pm. Anyone who is on the waiting list, would they please contact: Cynri Moffett, Ex. 3855.

## INTERDEPARTMENTAL CRICKET 1989

### RESULTS TABLE

MAY		
Tu 16	ADD v BP	ADD won by 9 wickets
Th 18	ISD v MASD	MASD won by 3 wickets
Tu 23	FARL v ACCOUNTS	Accounts won by 10 wickets
Th 25	AS&RD v CACD (Prod)	AS&RD won by 6 wickets
Tu 30	PSD v GSD (Prod)	PSD won by 79 runs
JUNE		
Tu 6	FCD v MASD	postponed - SNOW!
Th 8	ATED v ACCOUNTS	ATED won by 74 runs
Tu 13	CACD (Eng) v ADD	CACD won by 34 runs
Tu 20	PSD v AS&RD	AS&RD won by 6 wickets
Th 22	FCD v MASD	FCD won by 12 runs
JULY		
Th 6	SEMI-FINAL CACD (Eng) v FCD	CACD won by 52 runs
Tu 11	SEMI-FINAL AS&RD v ATED	AS&RD won by 9 wickets

### FINAL - AUGUST 1

The result of the Inter-Divisional cricket final was: **CACD (Engineering) beat AS&RD by 34 runs.**

On a fine evening at Hoo, AS&RD won the toss and put CACD in to bat. CACD scored steadily throughout their 20 overs, reaching 142 for the loss of only 2 wickets despite spirited defence by the AS&RD attack.

In reply AS&RD were unfortunate to lose an early wicket when the captain was run out in the second over. The reply proved unequal to the task. AS&RD accumulating 108 of the required runs for the loss of 6 wickets at the end of the 20th over.

**RESULT**  
CACD 142 for 2 (innings closed)  
AS&RD 108 for 6 (at end of 20th over)

**CACD (Engineering) won by 34 runs**

The organiser wishes to express his thanks to the Management Committee of the social club for their support in the completion of yet another successful and enjoyable season.

Keith Washington

## MEDWAY LEO CLUB

Are you aged 17 to 25 and would like to help raise money for Local Charities whilst adding something to your social life? Then "COME ON DOWN" to Pickwicks Free House, opposite Rochester BR Station. We meet there on the first Monday of every month at 8.00 pm. Hope to see you there. Or phone Medway 43858 Mark; 826725 Rachel; 44142 Adrian, or 48591 Darren.

# GAv Inter Divisional Football Final



Some of the winning team and squad with their Trophy. Standing (l-r): Jamie Maxwell, Darren Arterton, Ben Morton (capt.), Peter Good, Trevor Campbell, Gavin Deamer. In front: Hugh McArthur (Team Manager), Enrico Libertucci, Andy Buxton, John Elliott, Matt Buels, Ian Myler-Falla.

On Wednesday June 28 the Personnel/Training team won the football final beating Fishers by one goal to nil.

In a closely fought game neither side gave much away. Although Fishers appeared to create the better clear cut chances they failed to take any. Good goalkeeping and defending especially by the young Training team kept the scoring blank for nearly the whole of the game.

The only goal was scored eight minutes from time. A great run by right back Rico Libertucci started in his own half and took him past three of the opposition. The move was then carried on by Daryl Godfrey waiting in the centre circle; Daryl slipped a great pass to Mark Bridges who was running down the left wing. Mark in turn crossed the ball from the left into the Fishers goal area. As the ball came over in front of the goal, the Fishers goalkeeper and Darren Arterton raced for the ball, Darren got there first and coolly headed the ball over the advancing goalkeeper into the net.

match winner and it also ensured that Personnel/Training had won the trophy for the first time.

Every member of the squad deserves a pat on the back for the effort and determination they showed in winning the Trophy.

The winning team as follows: Graeme Jonas, Enrico Libertucci, Ben Morton (Captain), Trevor Campbell, Gavin Deamer, Daryl Godfrey, Andy Buxton, Mark Bridges, Peter Good, Darren Brown, Darren Arterton, Jamie Maxwell (sub.), and Ian Myler-Falla (sub.). Also in the squad were John Elliott, Matthew Buels and Tony Weekes.

A special thanks to all the players and officials who took part in the Tournament. Also to all the supporters and behind the scene personnel who helped to make this a success.

A very special thank you to John Bradley, Director of Personnel, for presenting the Trophy and medals to the finalists, it was indeed a night to remember.

Hugh McArthur  
Team Manager - Training

This proved to be the

## CHRISTMAS PANTOMIME

"ALADDIN" is the star of this year's pantomime.

He would very much like to hear from anyone who would like to join in and help. The lamp is being rubbed but he wants to let you know here also.

Contact - Jim Collins, Ex 3217

## CHESS PROBLEM SOLUTION

### TOP RANK ENTERTAINMENT!

Key 1 Bg5! (threat 2 Qd8 mate)  
1... 0-0+2 Bd8 mate  
1... Kf8 2 Qxh8 mate  
1... Bd7 2 Qxh8 mate

1 Bg5! seems such a crazy key-move that, at first sight, White appears to have lost the will to win. The White Rook is shut off from a position of strength, and Black is allowed to castle with check! But the prodigal Bishop returns to do with a counter-check from the Rook, and Black finds that he has Castled not to safety but into mate. It is worth noting the tries 1 Bf6? Kf8 and 1 Bh4? Rd4!

## Club-House attractions

This Programme is small and in any event subject to alteration because of the planned building work for the re-layout of the Lounge Bar area.

The club hopes that members will understand that the facilities will unavoidably be affected during the next few weeks, and that ultimately everyone will benefit from the improvements.

### AUGUST

Saturday 19 August  
**PARLOUR DERBY**  
8.00 pm

Saturday 26 August  
**Bank Holiday Dance with "ADA's 60s REVUE"**  
7.45 - 11.45 pm

### SEPTEMBER

Monday 28 August  
**Social Evening with "GOLDEN KNIGHTS"**

Saturday 2 September  
**Dance with "SAHARA"**  
8.00 - 11.00 pm

Saturday 9 September  
**Dance with "JOHNNY YOUNG BAND"**  
7.45 - 11.45 pm

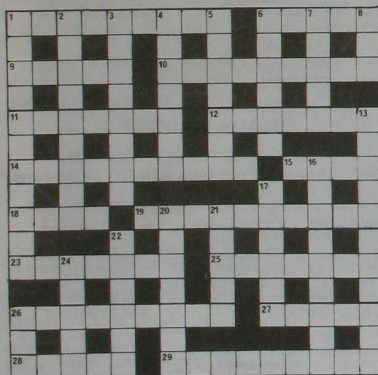
Saturday 16 September  
**Dance with "ADA's 60s REVUE"**  
7.45 - 11.45 pm

Saturday 23 September  
**Dance with "SPIRAL"**  
7.45 - 11.45 pm

## OUR CROSSWORD

During the Editor's absence, the previous Editor and friend of so many at Rochester, JESSE GRIFFITHS, contacted him to say that owing to recent ill health he feels he is no longer able to compile the Crossword which has appeared in so many issues of GAV News, and which he has continued to supply since his retirement. May we offer Jess' our thanks for his work and our best wishes for his health. Here are the answers for the last puzzle. Future ones will still be the handwork of Jesse, from back numbers a long time ago.

### CROSSWORD No. 96 For amusement only



#### ACROSS

- Without a drum he's in charge (4, 5)
- It is let in (5)
- Enlarge sideways (5)
- Put on to create impression (4, 5)
- Where the birds home in summer (7)
- You go on to travel (2, 5)
- Annual Anti-nuclear hike (6, 4)
- Sword (4)
- You take one as passenger (4)
- The top sound of birds (7, 3)
- No Jil! to go up this hill, without pail (7, 4)
- But it could be Henry, if fishy (7)
- Becomes a candidate for election (7)
- Short language after wireless (9)
- Animal of South America (5)
- The way ahead (5)
- Juicy morsel after the end (4, 5)

#### DOWN

- His feet are firmly, but likeable (4, 2, 5)
- Before a bath in birthday suit (9)
- Abey goes to war by song (8)
- Tell-tale mark of addict (3, 4)
- At the fair, your pennies one does (4, 3)
- Don't get around as strongly (6)
- Bathroom tool that suggests a note (5)
- Still to come, awaited (3)
- Strong when taken before meal (9)
- A coating with silicate? (6)
- The speaker, but under stress (7)
- A musical note, of value (5)

#### SOLUTION TO CROSSWORD No. 95

- ACROSS  
1. The Owl and the Pussycat; 10. Addie; 11. Committee; 12. Oppressor; 13. Grate; 14. Plenty; 16. See 1 across; 18. On Velvet; 20. Pledge; 23. Lasso; 24. Absconder; 26. Marco Polo; 27. Celia; 28. See 1 and 16 across.

#### DOWN

2. Had Up; 3. Overeat; 4. Locust; 5. Numerous; 6. Twinges; 7. Entranced; 8. Major Problems; 9. Peter the Great; 15. Eavesdrop; 17. Beabour; 19. Leonora; 21. Lion Cub; 22. Ashore; 25. Delta.

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

The views and opinions expressed by contributors are not necessarily those of the Editor or Company. Any such opinions or comments are those of the contributor alone and are printed solely as a matter of interest.

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