

## From Clocks To Computers

### New Time and Attendance Recording (TAR) System

A new Electronic Time Recording system is being progressively introduced to the Rochester Airport Site to replace the existing electro-mechanical Time Recording Clocks. Started during January, the implementation across the site will be completed by Spring 1989, by then covering all employees.

The management decision to implement the new system was taken after considering the need to replace the ageing existing clocks, and the more efficient recording of a computer based system offering benefits both to employees and the company.

One of the advantages is the use of a combined Security and TAR badge to replace the existing Security badges and Clock Cards. As employees are transferred to the new system they will be issued with the new badges. The new 'clocks' used with the system incorporate a badge reader and are connected back to a central computer

which records the time IN and OUT. It also enables employees to enquire on their recorded clockings and total hours up to the previous completed day for the current week. The badge readers will reduce the time taken clocking IN and OUT. Where possible the location of the new clocks will take account of the extensive relayout of the site to give the best possible distribution of clocking points, with the aim of reducing delays during peak clocking periods, especially at lunch time.

The TAR system is being implemented by a team drawn from the Personnel, Accounts, Security, Works Engineering, Computing Service Departments and representatives of the hardware and software suppliers, with representatives from each Division as they are added to the system. The system was originally specified by a Company Working Party who, having



completed the specification, considered various suppliers. The suppliers finally chosen were McDonnell Douglas Information Systems Limited and TRIAD Computing Services who supply the hardware and software respectively.

The TAR system will enable employees to resolve time-keeping related problems within their Division without the need to contact the Wages Department. Sickness and medical absence for appointments will still be reported via the Surgery and special leave of absence will still require the Personnel Department's approval.

Other types of absence and

overtime authorisations will be approved by employees' Supervisors.

All employees, of whom around 90% are on the present clocking arrangements, will be receiving an explanatory booklet detailing the range of facilities available, their use, and any variations to the existing company procedures. In addition to this, all clocking terminals will display brief user instructions. Further information may be obtained through your Divisional TAR Administration Officer, whose appointment will be announced prior to the implementation of the TAR system in your Division.

## GAv Computers and Displays Chosen for New US Demonstrator Aircraft

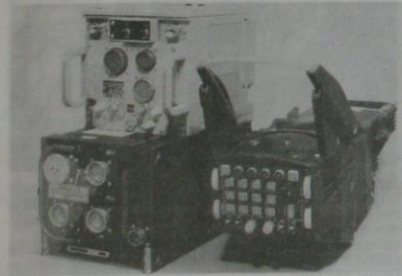
### Head Up Displays and Air Data Computers to Equip YA-7F

ADD and ISD have been chosen to supply equipment for two YA-7F demonstrator aircraft being built by LTV Aircraft Products Group, Dallas Texas. The YA-7F is a candidate for the Air National Guard requirement for a close air support and battle-

field air interdiction fighter. If the LTV YA-7F is selected for production, some 337 existing Air National Guard A-7 aircraft will be modified to the new standard, including our equipment.

The Head Up Displays, built by Airborne Display Division, are based on those already being produced for a current Air National Guard retrofit programme. The Air Data Computers, built by Instrument

Systems Division, are based on the highly successful Standard Central Air Data Computers being supplied for retrofitting nearly 40 types and variants of USAF and USN aircraft, amongst which is the A-7.



SCADC (Top left), with Electronics Unit and Pilot's Display Unit.

## GEC Chairman at GAv Inc

In December, Lord Prior visited the Atlanta facility and met many of our US colleagues during his tour.

Here he is seen being briefed on some of the SCADC units being supplied to retrofit USN and USAF aircraft, by Repair Manager Stan Smith. Looking on are (left) Lead Technician

Ron Kirby, GAv Inc Chairman Harry Eagles, and Vice-President Operations, Hank Kalbach.

More news from ATLANTA Page 4

## Congratulations

to the following people whose appointments have recently been announced.

**Ray Reese** couples the post of Quality Director with his existing responsibility as an Assistant Managing Director.

**Alan Gallagher** is Divisional Manager of MASD, succeeding **Laurie Hampson** who is now Business Development Executive, GAv.

**Barry Beddoe** and **Sue Marsh** are Deputy Divisional Managers, respectively of ATED and MASD.

**Malcolm Moulton**, Company Information Executive, will be joining FARL as Assistant Divisional Manager, and from the same 'office'

**Peter Simmons**, Press Officer, has gone to live in the USA and is Technical Marketing Executive at GAv Inc Dayton Office.

**Helene Cox** succeeds him as Press Officer.

**Jayne Wood** is Chief Engineer of MASD and **Mick Mills** of ATED.

## Cancer Screening for Female Employees

As a result of a joint trades union and management working party, a major education and screening programme for female employees was launched on 7th March.

The programme begins with a series of half hour sessions conducted by nursing staff which all female employees are encouraged to attend. During the sessions videos concerning breast examination and cervical screening are shown and information is given regarding local and on-site screening facilities.

All female employees are encouraged to attend their GP or clinic for cervical cytology screening. This can now be arranged by nursing staff on an individual basis or in block bookings at local clinics and all employees will be paid for time lost whilst attending.

In addition all female employees aged 44 years or older on 1st April 1988 will be offered a free breast screen.

A mobile screening unit will be on site for the period **11th April - 29th April 1988** and eligible employees will be given further information on an individual basis at the appropriate time.

It is hoped that female employees will take full advantage of the services on offer.

## STOP PRESS

ISD's Offshore Projects Group at Nailsea have been selected for the design, development and manufacture of Subsea Control Systems for the Britoil Don Field in the North Sea.

FULL STORY IN THE NEXT ISSUE





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 Barry Wallington, Training Centre  
 Ken Castle, Ann Smith, ATED  
 Maurice Sparham, CQD (Flying School)  
 Phyllis Ellis, CMS

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

## YOUR NEW PENSIONS REPRESENTATIVE

**Alan Gillet** has been elected as representative for the Rochester/Nailsea constituency, in the "South London" Pension Advisory Committee for the GEC Pension Schemes.



Alan is a Project Leader in GSD, who has been with the company since 1956, when

he joined Radio and Radar Division of the then Elliott Bros after completing a Dockyard apprenticeship and National Service in the RAF. Later he moved to IND, now GSD, and has worked on the major long-running contracts for Blue Steel, Jaguar, and Stingray.

Alan joined the Elliott pension scheme in 1964 and started to take a close interest in the GEC Scheme about 5 years ago. Because of this he was persuaded by colleagues to stand for the South London PAC and we congratulate Alan on his election. He can be contacted on Ext 3005.

No stranger to committee work, Alan is a Founder Member and Committee Member of the GAVBP Golf Society, and over the years has participated in many sporting activities.

## FRIENDS OF THE WISDOM HOSPICE

In both senses of the word "friends" – the above named charity received a donation of £100 raised by **Tony Taylor** of ATED Quality Assurance and his friends in the division. A Jungle Bear given by Tony was raffled, and the grand sum resulted in a cheque for which a letter of thanks was received from Senior Nurse Manager, Miss

Handy. The lucky winner of the raffle was **Harry Usher** of ATED in inspection.

It was a busy time for ATE OA, as the following weekend **Andrew Hunter** and **Frank Butler** took part in the "Fun Run" around Chatham, raising £200 for the Hospice. Well done lads! And thanks to everyone who gave their support.



Tony Taylor and Andrew Hunter with the Jungle Bear

## EDITOR'S NOTICE BOARD

We are pleased to publish these letters of thanks, for contributions collected at the Christmas Dance and for the Annual Party and Pantomime given for local handicapped children.

**The Hospice for Sick Children**  
 GREAT CHURCH STREET, LONDON WC1N 3AT  
 Telephone: 01-404 2111  
 Fax: 01-404 2112

22 January 1988

Mr. F. Castle,

Dear Sir -

Firstly, I would like to thank all those of your colleagues at GEC Avionics who contributed to the amount of £100 for the raffle held at the Christmas Dance. The amount was raised by people generously giving an extra 10p for every pint of beer at the Christmas Dance.

The Hospital and Hospital are very grateful for this further gift. We greatly appreciate the support which is represented, which encourages us in our work of maintaining the hospital to continue its vital and valuable work into the future.

Thank you and your colleagues, very much indeed.

Yours faithfully,  
 Mr. Anthony Taylor  
 General Manager

**Medway Society for Mentally Handicapped Children**  
 Annual Dinner, Westwood Hall, Ottingham, Kent  
 Telephone: 01753 411111

Dear Sir,

I am sure I need not write to you to thank you for the support you have given to the Medway Society for Mentally Handicapped Children and also for the arrangements for the annual dinner. I am sure I am as glad as you to be able to do this.

As you are so generous to you and all your colleagues for the work you do for the Society, I am sure you will be very happy to see the result.

Yours sincerely,  
 Jim Collins  
 Chairman

And also at the Christmas Dance, the following were found:

- 1 Lady's Gold Dress Ring
- 1 Lady's Eternity Ring
- 1 Gent's Gold Ring

Contact Jim Collins Ext: 3217

## BARCLAYS' TAKE-AWAY

The Barclays Bank Christmas Hamper was won by WES Draughtsman, **Lee Harvey**, who is seen here receiving his prize from Rochester Branch Manager Brian Emery in the GAV Branch which comes under his control.



## THIS YEAR, HAVE A CARAVAN HOLIDAY IN THE SOUTH OF FRANCE

A fully fitted 6 berth caravan is for hire on a lovely spacious campsite near Frejus, on the French Riviera.

Amenities include Swimming Pool, Tennis, Bar/Restaurant, Shop and access to lovely beaches or all those famous places you hear of, Monaco, Nice, St. Tropez, or Italy.

The cost to hire the caravan starts at just £95.00 p.w, that's the caravan, not per person.

FOR FULL DETAILS CONTACT:  
 DAVE RUDD on 4247 or Minster (Sheppey) 875592 (Evenings & Weekends)  
 or  
 KEITH RUDD Medway (0634) 574751 (Evenings & Weekends)

## Gillingham FC Supporter of the Year



**Ted Paine** of ADD is seen here with Robin Sleight and the Trophy presented annually by the Reliance Coach Company – Ted actually received it at the Gills Annual Dinner and Dance.

Ted has yet a further

Trophy to come, to mark 300 attendances at away matches since the formation of the Gills Travel Club.

At the moment, his score is over 325 away matches with an estimated 100,000 miles of travelling.

## BLOOD TRANSFUSION SERVICE

In the Main Canteen  
**Monday 11th April – Friday 15th April**  
 Please obtain Appointment Cards from Surgeries – and please help avoid queuing by adhering to the chosen time!



# QUALITY APPRENTICE OF THE YEAR



Seen here with Charles Berry who founded the Award given in his name, is **Paul Williams**, Quality Assurance Engineer in ISD, who has recently completed his apprenticeship.

The fourth annual Presentation was hosted and introduced by Ray Reese, who commented on the attributes sought by the selectors for the award, including personality, ability to deal with customers, and all round performance. On these counts, the competition this year was very severe, and **Steve Quinnell** of ADD was a close runner-up.

This year's selection panel was John France (ISD QA Manager), Andy Craven (CQD Company Quality Coordinator), John Roberts (Personnel Dept) and Derek

Harvey (Training Dept).

To round off the ceremony which was attended by a number of Paul's colleagues and QA Managers, Paul thanked the company and department members of ISD who had trained him; John France handed over a bouquet to Mrs Berry who this year was accompanying her husband; and Fred Mackley reflected on his association with Charles Berry, lately on-site representative of the US Dept of Defence, over nearly 20 years, building up to our present huge success in US markets in which the company's reputation for Quality, Reliability, and Maintainability has been a main reason for our repeated selection against fierce competition.

# HASKETT TROPHY 1987 ENTRANTS

Mr Howard is pleased to announce that five entries for the 1987 Haskett Trophy Award have now been received. These are:

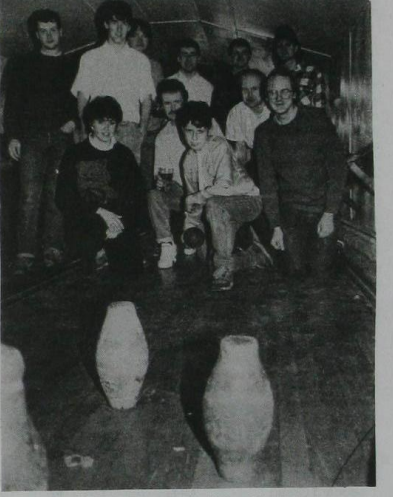
<b>Design and Development of Avionic Serial Transmission and Interface Device (ASTRID)</b>	<b>Binocular Helmet Mounted Display System</b>
Submitted by: Mr A R Heaps Mr C L Elmore Mr K Deans Mr J Gilmour	Submitted by: Mr K Harvey Mr M J Ewer Mr A A Cameron
CACD	FARL
FARL	ADD
<b>MIL STD 1553B Silicon-on-Sapphire Remote Terminal/Bus Controller</b>	<b>Intelligent Flight Planning Aid</b>
Submitted by: Mr K Deans	Submitted by: Mr S F Baker Ms G G Liddy Mrs I T Wortley
FARL	FARL
<b>Design of a High Density Digital Recording System</b>	
Submitted by: Mr S M Barlow	
FARL	RSD

The entries are all of a high standard and the Adjudicating Panel will meet in April/May 1988.

# YEOVIL 24 HOURS SKITTLES MARATHON

In December, around 40 people, mainly software engineers from MASD's Yeovil Office, with several from Marconi Software Systems and some friends, played skittles from midday Friday to midday Saturday. £700 is being collected to benefit Oxfam and The Cancer and Leukaemia in Childhood Trust. The event, which received coverage in two local papers, was staged at the Mandeville Arms just outside Yeovil, and was a first-time venture organised by Richard Rogans.

An early target rate of 400 skittles per hour was found to be too easy and after four hours, and again after ten hours, the average rate was 500. This could not be maintained through the early hours of Saturday, but breakfast-time reinforcements led to a recovery. The 10,000 figure was reached with 70 minutes to spare, the final total being 10,553 – an average rate of 440 per hour.



Standing:— Richard Rogans, Jim Kelly, John Liezers, Nick Green, John Everitt, Tim Green.  
Kneeling:— Fiona Linford, Rob Duthie, Neale Laird, Chris Hope, Edmund de Trafford

# Paul at the Palace – AGAIN

Olympic Medallist **Paul Nihill** MBE, of ATED, has paid his fifth visit to Buckingham Palace. This was to receive from the Princess Royal, President of the British Olympic Association, an Olympic Pin under an arrangement by the IOC, for all Medallists going back as far as the 1920 Games.

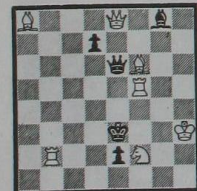
Paul is now looking forward confidently to his sixth visit – to receive a knighthood! He also recalls that this year marks his 40th as an active athlete. He had his first race back in 1948 as an 8 year old, and for the future he plans to run in next year's London Marathon. On the admin side he hopes to organise a charity Fun Run in his old town Croydon, in the same way as his current involvement with Medway charity runs.

And for those of us too young to remember, Paul won his Silver for the 50km walk at the 1964 Olympics in Tokyo.

# CHESS PROBLEM

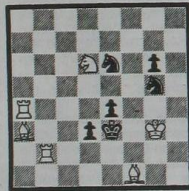
In this, and future issues, the Solution will be printed on another page in the same issue.

White to play and mate in two moves



**Solution on Page 5**

# Solution to Problem No. 14



**DIVERSIONARY TACTICS**  
Key 1 Rc2! Waiting  
1 ... Pd2 2 Rc3 mate (set 2 Rb3 mate)  
1 ... Pxc2 2 Bc1 mate  
1 ... gS random 2 Bc5 mate  
1 ... Sd4! 2 Sc4 mate  
1 ... gS any 2 Rxe4 mate  
Mate in two is quick, but the end would be even quicker in this problem if it were Black's turn to move. Every Black move can be answered by a mate. But it is White's turn to play, and there is no simple waiting move. The key 1 Rc2! has cunning. A new mate 2 Rc3 is provided for 1 ... Pd2, and a capture of the Rook diverts the Pawn's onward rush to 2 Bc1, a well-concealed additional mate.

# ORION ATE FOR JAPAN AIR LINES

Following the receipt of the order for an ORION ATE for Japan Air Lines, a Training Course was held in ATE Division. Three engineers from JAL Maintenance Center had a three week intensive training programme, organised by ATED's Logistics Department.

At the end of the course they were presented with certificates by Sue Marsh. The agreed acceptance procedure was then run and the ORION was accepted on behalf of Japan Air Lines by Mr M Sekine who is a Senior Director, Aircraft Systems Maintenance Department at Narita International Airport.

After the acceptance, the ORION was packed and freighted to Japan Air Lines' Maintenance Center at Narita Airport.

Members of the Production Department travelled to Japan to reassemble and re-commission the Orion. This was completed successfully and with due ceremony the ORION was handed over to Japan Air Lines on schedule.



Photo shows (l to r) Mr Misono (JAL), Sue Marsh (then Chief Engineer ATED), Mr Iwamoto (JAL), Ian Hunter (Assistant Sales Manager ATED), Mr Noumi (JAL), after the presentation of certificates on completion of the ORION Training Course.





# STATESIDE NEWS

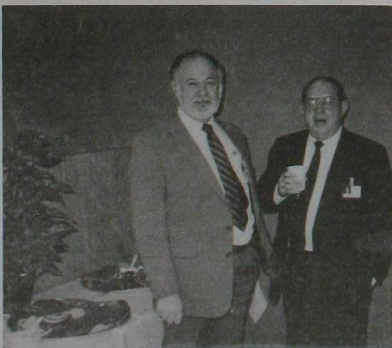
## LANDMARK LUNCH

October 20 marked another "first" for GEC Avionics in Atlanta. A Service Anniversary Luncheon was given for all employees who joined us in October of any year – and some people joined us *many* Octobers ago! Hosted by Bill Broyles, our President, and Jim Grant, Training Manager, the luncheon proved to be a big success – and the first of many such luncheons. Listed below are the names of all employees honoured.

		Years of service
Becky Staples	MIS	1
Karen Deaton	MFG	1
Alberta Ray	MFG	1
Harold Bell	MFG	1
Stephanie Kratofil	MIS	1
Steve Benkert	MFG	1
Tim O'Donnell	MFG	2
Val Moore	REPAIR GRP	2
Gail Brown	ENG	2
Reba Shorts	MFG	3
Teresa Lindsey	ADM	6
Jim Mosher	MFG	6
Dottie Welch	ADM	8
Lenard McWorter	MFG	9
Mike Jennings	MFG	9
Danny Lincoln	ENG	10
Andy Fordham	ENG	10
Richard Davis	MFG	10
Lynne Bates	PERS	10
Steve Robson	ENG	11
Faye Leonard	MFG	11
Len Cooper	MFG	11
Hugh Smith	ENG	12
Don Howe	ENG	13
David Clapp	ENG	13
Neil Wolstenholme	SALES	14
Reg Barley	ENG	14
Ed Smalley	MFG	15
Leonard Green	MFG	17
Bob Cochran	REPAIR GRP	18
Brian Lewis	ENG	28

A fact for trivia buffs – Combined years of service for October hires totals nearly 234 centuries!

Lynne B. Bates



Awaiting their turn at the Luncheon Buffet are Brian Lewis – with 28 years of service – and Bill Broyles, President.

## IT'S THE BRITS AGAIN!



And the winners are: Andy Fordham, Larry Jones, and Bob Burrow.

What is it like to win the GEC Dart Tournament for the third time??

That was a question posed to me the other day. For those of you who are not aware, the GEC Dart Tournament is named after Mr. Henry Hanron, the former President of GEC Avionics, back in the days when we were called E-A Industrial Corp, in the 1970s.

To win a darts tournament you need a little skill, a good team, and a lot of LUCK!! I was fortunate to have had all three combinations on the night of this win. The luck of the draw gave us a bye in the first round but matched us against the current champions in the second round, so it was going to be an early night for one of us.

Over the years teams change for various reasons, but I was fortunate enough to have played in the teams that won the first two tournaments.

The popularity of this game, and of the tournament, has created a lot of enthusiasm in the company and consequently better teams have arisen making it more difficult to win. So, without a win for the past three years, and together with another reason, this year's opportunity was a special one for me, so much so I drank Coca-Cola all night instead of my customary pints of Coors Lite.

On to the game – we won the first match beating the reigning champions who aggressively took us to the wire in all three games. We won the semi final round on a

long double one, and into the final we went.

With my adrenalin high, and my hands freezing, the best of the last three games was under way. The scoring was even, high by some and low by others, both teams cancelling each other out and bringing the score down quickly. The chance to close-out seemed to come in no time. With the skill level in the competition at its highest a chance win would not last long, luckily we took our chance and won the first game. Then came the second game – with the crowd buzzing in the background in anticipation of the result and cheering on their favourites, cumon USA from one side, cumon Brits from the other, the game started like the first. The USA team got to the close-out point first, but failed to capitalize, letting us Brits catch up and score-out to win the match in an exciting finale to the evening.

So what's it like to win three? Well, the other reason was a couple of days prior to the tournament I reached the BIG FOUR O – 40, which goes to show you don't have to be over the hill to play DARTS.

I would like to take this opportunity to congratulate my team mates, Bob Burrow and Andy Fordham who made the win possible, and to all of you who played in the other teams for your sportsmanship, and to those in our rec club who work hard to make these tournaments a success.

Larry P. Jones

## CITY MAYOR SEES OUR TRAINING

During one of her visits to Airport Works last year, the Mayor of Rochester-upon-Medway Cllr. Mary Fennemore expressed interest in the company's training facilities and programmes.

In January she paid a visit at the company's invitation, and was shown activities at Hopewell Drive and in the main factory.

She was welcomed by John Ainley, and after a comprehensive briefing from David Perry, was shown round Hopewell Drive Training Centre by Barry Wallington, Superintendent and several of the Instructors. Later, in ISD and ADD in the Towers, Fred Wickham, Steve Rowe, Kevin Earl and Chris Bowman were among

the managers and supervisors introduced, together with Training Supervisors Paul Broadbent and Derek Davis.

A main purpose of the visit was to talk to trainees about their work, and among the apprentices and trainees introduced to the Mayor were David Trevelyan, Caroline Stanfield, Gary Miles, Graham Cross, and Lisa Cunningham, and Jason Smith at the Training Centre. The Mayor was delighted with the visit and the number of people she had been able to meet, and to conclude her visit was hosted at lunch by Assistant MD John Spinks and the Personnel and Training Managers.



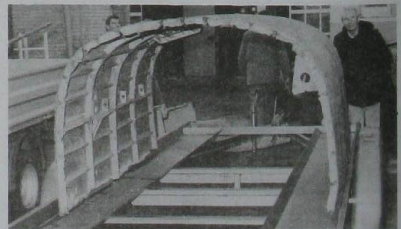
In the Computer Room at Hopewell Drive Training Centre, the Mayor saw First Year Clerical YTS Trainee Amanda Miles, explaining her work with (left) Instructor Mark Holloway; Barry Wallington, John Ainley, and David Perry are looking on. Senior Training Officer Richard Hale was also present throughout the visit having co-ordinated the arrangements with Peter Simmons, Press Officer, but both are outside this picture.

## Stirling Comes Home

When an RAF Chinook helicopter landed by the Control Tower recently, those who saw it may have wondered what was going on. Its cargo was a portion of the fuselage of a Stirling bomber, the largest known surviving relic of around 400 of the WW2 bombers which were built by Shorts in Rochester, mainly in the 'main factory' hangar. Having been rescued from recent service as a garden shed in Gloucestershire, the section is to be restored by the Aircraft Preservation Group of Medway Branch RAeS, in their workshop

behind the control tower. It joins the Spitfire and two Hurricanes currently undergoing restoration.

Interestingly, the Chinook was flown by 7 Squadron RAF, the same that flew this particular Stirling on five bombing raids over Germany. Battle damage sustained is still visible, and the plan is to restore that and the ravages of 'garden service', so that the relic can be placed on permanent exhibition as a tribute to the aircrews who flew these and other bombers – possibly at Airport Works.



The Stirling remnant after unloading, admired by Lewis Deal, Project Leader of the RAeS Aircraft Preservation Group (on right).



# SMOKING SURVEY

We would like to thank all GAv News readers for responding to our recent survey concerning attitudes to smoking here at the Rochester site. The results of the survey are as follows:-

Total Replies 1479

## 1 Smoking in Eating Areas

Employees who wish to ban smoking completely in Canteen areas	68%
Employees who would like segregated areas for smoking and non-smoking in Canteen areas	30%
Employees who wish to ban smoking completely in Tea Bars	55%
Employees who would like segregated areas for smoking and non-smoking in Tea Bars	43%

## 2 Smoking At Work Place

Employees who wish to ban smoking completely in work areas	35%
Employees who would like segregated areas for smoking and non-smoking in work areas	63%

## 3 No Restrictions

Employees who would like no restrictions on smoking	2%
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Discussions with GAv Management and Trade Unions are now taking place to formulate a smoking policy which incorporates the wishes of the majority of employees.

# LUCKY PEOPLE AT THE CHRISTMAS DANCE



Delighted smiles from the winners of the Prize Draw at the Company Dance. Left, **John Quayle** (MASD) won the Pickfords Long Weekend for 2, and **Biff Cullum** (GSD) Holiday Vouchers to the value of £250.

The Draw was made from among ticket holders at the dance, rather than from the wider range of Club Members or employees in

earlier years. So if you want a chance at this next Christmas - remember the date of the 1988 Dance - Saturday 17th December!

**NOTE!!**  
As from 1st January 1988 for all accepted suggestions is increased to **£25**

# CATEGORY I, II, III; HOORAY FOR FCD

On 27th November 1987 the Civil Aviation Authority approved an application by British Caledonian to operate their BAC 1-11 fleet to a minimum decision height of 60 feet and a runway visual range of 200 metres. This is the lowest clearance that can be expected from the monitored simplex autopilot installation. This category III automatic landing certification is a fitting climax to a programme on which FCD has been involved for over 20 years.

In 1964, one of the original launch customers for the BAC 1-11 was British United Airways. Five years later they purchased a category II autopilot system having a 100 feet/400 metre clearance. When BUA merged with Caledonian Airways to form B-Cal, in order to obtain a common operational standard for the combined fleet, the BUA system was downgraded and the special category II equipment was sold.

In 1984, B-Cal approached British Aerospace and GEC Avionics with a request to

update their fleet of 13 aircraft to automatic landing standard with the aim of providing a common operational capability with their DC-10 aircraft.

As with all successes, the development programme that followed was truly a team effort.

ISD devised modifications to update the Air Data Computers; AS&RD successfully located and refurbished the original category II equipment, some of which had not seen the light of day for over 15 years. They also modified existing computers to a standard defined by FCD. FCD production department built 16 autoflare computers, five autothrottle computers and 5 autothrottle controllers. Considering that none of these units had been seen on the shop floor since 1970, this whole programme is clearly a testament to the dedication of the people concerned and the reliability of FCD's autopilot system.

(P.S. B-Cal have now been taken over by BA)

## SUGGESTION SCHEME



"A'hoi there me hearties. Climb aboard the Suggestion Scheme for some rich pickin's in 1988!!"

## OVERHEARD AT A BUDGET MEETING?

A new proposal was minuted. Would they block it?

"They will give it the most serious and urgent consideration, and insist on a thorough and rigorous examination of all the proposals, allied to a detailed feasibility study and a budget analysis, before producing a consultative document for consideration by all interested bodies and seeking comments and recommendations to be included in a brief for a series of working parties who will produce individual studies which will provide the background for a more wide-ranging document considering whether or not the proposals should be taken forward to the next stage." "You mean they'll block it." "Yup".

(With apologies to Sir Humphrey and the BBC.)

### THE LITTLE NUISANCE

Key 1 Qc7! (threat 2 Cc5 mate)  
1 ... Pd6 2 Qa7 mate  
1 ... Pd5 2 Qa3 mate  
1 ... Qxe7 2 Rf3 mate  
1 ... Qe5 2 Qxe5 mate  
1 ... Qe4 2 Qxe4 mate

This problem shows the Black Queen unpinned twice by the White Queen as it mates (cf 67). The Black Pawn is well meaning in its efforts 1 ... Pd6 and 1 ... Pd5 to stop the threatened 2 Cc5 (an unpin of the Black Queen, and nicely in keeping with the theme), but it is just a nuisance. The two unpins and mates 2 Qa7 and 2 Qa3 are due to the Pawn's interference.

## CHESS PROBLEM SOLUTION



# A BUSINESS TRIP FOR GSD ENGINEERS



## or A DAY TRIP TO THE NORTH POLE

One of the more unusual exercises in GSD involved a quick trip to the North Pole and back, courtesy of RAF Support Command, to demonstrate our inertial navigation equipment. Four engineers and two inertial navigators were specially prepared for the trip. Preparing the equipment was comparatively simple; however, the engineers were required to have a leather larynx and the ability to work for two days virtually without sleep.

Each year the RAF select a group of high flying officers (career wise) for an 11 month Aero Systems course at the Cranwell college. All NATO nations are eligible and this produces a good and interesting mix of nationalities. The objective is to bring the group right up-to-date on modern airborne weapon system techniques and procurement using a mixture of classroom lectures, visits to industry and 'hands-on' experience. A major part of this experience is a demonstration of the way different navigation systems behave, especially in the rather unusual conditions around the geographic poles. The note at the end goes into more detail on these conditions.

An RAF VC-10 is converted to a flying laboratory for this exercise, and owners of specialist navigation equipment are invited to fly it for demonstration purposes. This exercise is called "The Aries Flight". During the flight the students spend about 30 minutes with each equipment in turn, to gain hands-on operational and performance monitoring experience. Each equipment supplier also provides an operator to keep the kit working and explain its many advantages to the students, all of them, separately, in a noisy aircraft. Hence the leather larynx requirement. Some of us were hoarse for days afterwards.

GSD provided two ring laser gyro inertial navigators (RLG INS) which were chosen by the RAF as the most up-to-date version of INS. As it needed two trips to accommodate all the students this provided the opportunity for four GSD staff to operate the equipment and meet potential customers, over the pole. The four were Dick Amos, Barry Darlington, Doug Harris and Clive Hubbard.

The flight began at RAF Brize Norton (Gorbachev's refuelling station) landing at the US Air Base at Thule in NW Greenland about 6 hours later. For the technocrats, the latitude of Thule is 76½° North, a good jumping-off point for the North pole. The second leg is: Thule; North pole (twice to make sure) and back to Brize Norton. The flight time was eight hours. Equipment operators are required on the aircraft two hours before nominal take-off time and stay for 1½ hours of post-flight tests. This schedule, combined with the seductive night life in the Top-of-the-World club at Thule, explained the bleary aspect of the operators on return to Brize Norton.

The mention earlier of nominal take-off time is important. There were 15 different types of sophisticated navigation equipment on board, serviced by temporary power supply packs, so problems were bound to arise. They did. On the second flight it took 1½ hours and a trundle round the dispersal area to close the aircraft freight door! The navigation equipment was fine.

The flights were made in the first week of June. Thule was brilliantly sunny and just a little cooler than UK. (Remember last summer?). Although it is normally sparsely populated the base is a vast complex on a coastal inlet and is capable of accommodating 15,000 people at very short notice. The immediately surround-

ing area is a rather insipid brown colour but all the hills were snow covered and the glaciers seen on the approach were very impressive.

As the nearest Eskimo settlement is some 50 miles distant, sight-seeing was out of the question so instead, our free time was centred around the social club (Top of the World) and the duty free liquor store. For some strange administrative reason we were allocated rooms in a block remote from this social hub. Even so, our navigation between these two landmarks and the billet was unerring.

As we were on Danish territory we were provided with a very enjoyable Smorgasbord meal (at midnight UK time) and considerable will-power was needed to leave the club as it began to liven up (3.00 a.m. UK time). Time disorientation was helped by the sight of the sun high in the sky as we left the semi darkness of the club at midnight local time.

Thule has an unusual taxi service operated by off-duty servicemen. Provided you know where you are (not necessarily easy) and have access to a 'phone, they will amble over to collect you and take you to any part of the base for one dollar. With liquor so cheap, this scheme is probably a practical way to limit 'high spirited' driving.

After 3 hours sleep and a game of hunt the coach we were provided with a hearty American breakfast to prepare for the transpolar leg. There was another delayed take-off; they have Air Traffic problems even at 76°N!

As we approached the pole the rate of recording our latitude, longitude and speed was doubled and this combined with a growing feeling of anticipation made for a hectic 45 minutes. The aircraft made a straight run in to the 'on top' position esti-

mated from the satellite navigation equipment on-board, and the miss distance was calculated. A second more accurate run was made and we were gratified to see our INS indicate 90°, 00' 00", a display rarely observed in flight.

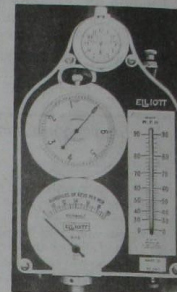
To quote a phrase, it was all down-hill after that, actually down longitude 01° West into the vicinity of Brize Norton with its cold, wet summer weather.

The end of the exercise was extended when the ground crew removed the steps while we were checking out the equipment after landing

# THIS YEAR'S COLOUR WALL POSTER

Following tradition, our poster this year is the picture that formed the front cover of the "Annual Review of Activities - into 1988". The composite was made up by Dave Matson of AS&RD Graphics, and depicts the Vickers Gun Bus together with the General Dynamics F-16D. It symbolises the continuity of the "Elliots to GEC Avionics" record of excellence across the years "...and still leading!", and across the Atlantic with our major successes in the US markets.

Both aircraft are state-of-the-art in their own ways. The Gun Bus is of approximately 1910 vintage and was probably the first machine built to fulfil aerial warfare requirements - it saw service in WW1. The instrument panel is not very distinct, but would have included Elliott instruments similar to those shown here. At the time they



were the best available - as is the wide-angle HUD which can be seen in the F-16D cockpit, the modernised version of the F-16 which had its origins in 1972. GA was involved even in the YF-16 prototypes which first flew in 1976.

and it took over an hour for another set to appear. While waiting we were able to watch the RAF ground staff reconverting the aircraft for a passenger flight the following day. This was an impressive exercise in efficiency and team work. In the absence of normal flight stairs the fitters came and went through service doors in the belly of the aircraft!

We all feel that it was a useful and enjoyable exercise to have the chance to operate our equipment 'for real' in a

remote area. Obviously much of the success and satisfaction resulted from the thorough and helpful organisation of the RAF Cranwell staff in charge of the exercise. We saw just a little of the planning that was involved and we were impressed.

The photographs show the VC-10 at Thule being prepared for the assault on the North pole and the four intrepid GSD explorers with their official certificates to prove that they had been there.

Doug Harris



(l to r) Clive Hubbard, Doug Harris, Dick Amos and Barry Darlington.

## Some Problems of Polar Navigation

The two most popular types of aircraft navigation system are based either on a magnetic compass or inertial navigation. For reasonably accurate navigation it is necessary to know, continuously, the direction of aircraft movement, to a fraction of a degree relative to north. For an area of several hundred miles around the magnetic pole, compasses are unreliable by many degrees, even with the best available compensation. A magnetically based system therefore

needs some help in these regions. This is usually based on gyro systems and only practical tests will show how well the two devices complement each other. The calculations in an inertial navigation system are quite sophisticated under normal conditions. They are complicated further by the fact that the lines of longitude (East/West) are very close together near the geographic poles so that direction of North can change rapidly for a fairly slow movement. This

is overcome mathematically by changing the basis of calculation to work relative to an artificial pole well removed from the real one. After all, the positions of the North and South poles were chosen fairly arbitrarily and, with a spherical earth, there is no basic reason against moving them for convenience of navigation. However it is still desirable to make a practical test over the pole to ensure that all the effects are included in the computer program.





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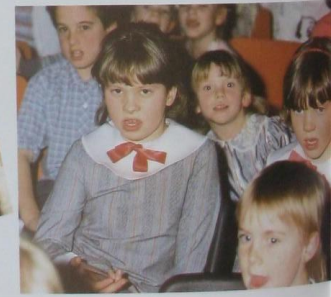


# PARTY AND PANTO

Social Club Committee and friends, canteen staff, members of management, and dozens of helpers behind the scenes – all their efforts came to a climax at the Children's Parties and Pantomime once more.

A host of happy children went home with their presents. And the three Dyer girls from Walderslade wrote to Uncle Jim, thanking everyone for their efforts.

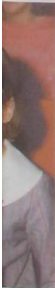
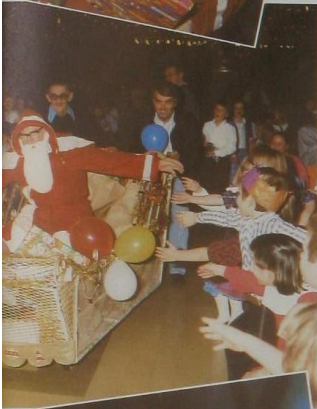
*So do we!*



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# SNOW WHITE AND THE THREE BEARS



Written and Produced by  
Jim Collins

Snow White	Maxine Ruggles	(AS&RD)
King	Jim Troy	(CACD)
Wicked Queen	Jenny Smith	(AS&RD)
Daddy Bear	Maureen Stevens	(AS&RD)
Mummy Bear	Lee-Ann Parsons	(AS&RD)
Baby Bear	Nicky Young	(AS&RD)
Rupert Bear	Karen Carpenter	(AS&RD)
Woodcutter	Jim Collins	(Social Club)
1st Soldier	Hugh McArthur	(Training)
2nd Soldier	Stuart Troy	(CACD)
3rd Soldier	Malcolm Troy	(FCD)
Backstage Voices	Sandra Butler	(GSD)

Above:  
Full cast  
(left to right);  
3rd Soldier,  
Voices, King,  
Wicked Queen,  
Woodcutter,  
Snow White,  
1st Soldier,  
2nd Soldier –  
and  
the Bears!



All the Bears and Snow White.

Lights and Effects  
Paul Barratt & Ray Newman

Front Men  
Peter Blird & Rod Cole

Piano  
Bert Robbins  
and  
Father Christmas  
Jim Goudie



Above:  
Wicked Queen in  
drag and  
Snow White.



King Jim

Photography by Alan Keats and Ian Douglas

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# CHRISTMAS DANCE IN THE CANTEEN

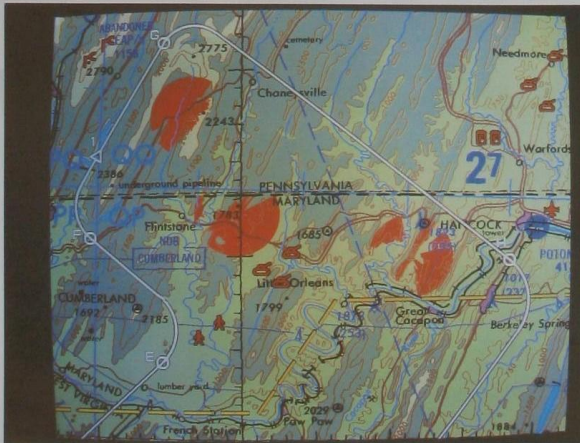
For the first time, the Company's Christmas Dance was held in the Canteen, following closure of the Star Ballroom in Maidstone and a couple of years at Fenners, West Malling. Around 600 people enjoyed the music and dancing with the Johnny Howard Band and the group 'Misty', already well known from appearances at the Clubhouse. The buffet provided by the canteen staff and the large number of raffle prizes on offer helped the popularity of the event.

*So put this in your diaries everybody – the 1988 Christmas Dance will be on Saturday 17th December.*



# GSD'S MOVING MAP

The front page picture of the DCMU in the last issue 'lost' many of the features of the pilot's display. Here now can be seen much more detail, such as the red overlaid threat information, and navigation features such as blue water. The contour information can be enhanced in terrain following missions to present height shading with respect to the aircraft, emphasising high ground to be avoided.



# CLEAN FOOD PREMISES AWARD

*Some of our Canteen Staff, displaying the Certificate recently given to them.*

Back Row:  
Sandra Hall, Chef Alexis,  
Julie Greenstreet, Jenny

Taylor, Wyn Crowthers,  
Lorna Weller, Kathy Hall,  
Margaret McCrea, Glynis  
Burch, Pat Davies, Vi Rains,  
Dot Wells, Sylvia Bennett,  
Val Cass, Doreen Raines,  
Steve Lehaney, Debbie  
Crew.

Middle Row:  
Pat Dollyer, June Parker,  
Maureen Cass, Barbara  
Shackleton, Marian  
Foreman, Pat Gibbs, Kath  
Allen, Schoolgirl, Iris Spillet,  
Elsie Weller, Linda  
Strudwick, Mary Herbert,  
Barbara Troy, Bill Gostling.

Sitting:  
Sue Marshall, Yvonne Smith,  
Betty Colyer, Carol Evans,  
Eileen Parker, Jean Smith.

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# CANTEEN - SERVICE WITH A SMILE

*Canteen Manager Bill Gostling and his staff of around 50 are nowadays providing a service far beyond the old-fashioned 'works canteen' idea. Facilities range from the daily provision of large numbers of filled rolls, to the serving of high quality meals in the Visitors Dining Room or sit-down dinners for many hundreds of guests.*

To meet the needs of employees throughout the Airport Works site, preparation and cooking of each day's lunches begin by around 7.30 am. And early on, the making of filled rolls and other refreshments has to be done, to fulfil telephoned orders and get them ready in time for collection. Seven mobile trolleys or 'tea-points' are also provided and besides the main operation in the canteen block and kitchens, there are the 'out-posts' such as the New Road Avenue and Hopewell Drive facilities to be serviced, each for upwards of 100 people a day.

In the main kitchens, some of the statistics may startle. For the self-service dining room, around 600 hot meals are provided, plus the waitress service area, and the 'Blue Room'. The Snack Bar serves any number up to about 700, and in the Lounge Bar where company visitors are entertained, a Buffet for as many as 100 is often

needed. There, guests ranging from the Lord Lieutenant, Mayors, other local dignitaries and important visitors, hosted by the company for presentations and similar events, may be seen, over and above the steady stream of divisions' guests, customers and suppliers. Visitors may relax during the day's business and the facility is much appreciated, being secure and avoiding the time and nuisance of bussing to outside establishments.

To provide the meals for our people, and the snack type refreshments, the amount of main ingredients to be purchased is a matter of fine judgement, but some of the steady orders are easier to record. Ladies of our households, just try visualising 14 sacks of 56lb of potatoes each day (half of them are made into chips!); 900 bread rolls (of which

around 800 go for telephoned orders); 15 gallons of milk; 35 loaves of bread; hundreds of pies, packets of sweets and chocolate, sandwiches and crisps. And all the ingredients for the buffets provided in the Lounge Bar, or main or

divisional conference rooms - often at minimal notice. Plus tea, coffee, biscuits for conferences or office meetings.

And then there are the 'specials' - children's parties, evening entertainments, and other functions

which may only happen once or twice a year. Notable recent examples have been the Long Service Association Dinner-Dance for about 650 guests - the 'Reapers' Annual Dinner-Dance, and for the first time the Company Dance with buffet for about 600.

The traditional tea-parties each with over 400 hungry children - somewhat fewer for the Mentally Handicapped Children's Party - involve the making and

service of that number of jellies, little buns and sandwiches, but for these occasions there is a great deal of much welcomed voluntary help.

Overcoming the unexpected, be it a last-minute need to provide for some important visitors - or bad weather preventing employees and supplies getting in to time - or good weather encouraging people not to come to lunch in their usual numbers - is a daily need.

And the need to provide a meal or snack for everyone who wants it, is fulfilled on every working day by just fifty people mostly ladies, before and behind the scenes.

## The Management...

*Bill Gostling, Canteen Manager; Sandra Hall, Assistant Canteen Manager; Chef Alexis; Doreen Raines, Canteen Supervisor.*

*Bill looks after the entire "business" of the canteen, and Sandra is his 'stalwart right hand', problem solving and attending to all the day-to-day queries, particularly those to do with accounts and wages.*

*Chef and Doreen look after the cooking and the people respectively.*

## Cooks...

*Carol Evans, Kathy Hall, Yvonne Smith, Barbara Shackleton, Jean Smith, Vi Rains.*

## Waitresses...

*Pat Gibbs, Debbie Crew, Marian Foreman, Elsie Weller, Sue Marshall, Eileen Parker, Lorna Waller, Mary Herbert, Bet Collyer, Pat Davies, Barbara Troy, Linda Strudwick.*

## and last but not least...

*Pauline Hands, Cashier; Dot Wells and Margaret McCrea, Assistant Storekeepers; Winnie Croughters, Cashier.*

## Snack Bar...

*Debbie Spillett, Jenny Taylor, June Parker, Lily Stratford, Vai Cass, Pat Dollery.*

*Not to forget many others not pictured here - but who may have been included in the colour picture.*



# WEDDING ALBUM

*Congratulations to all the happy people shown here, who have been married during recent weeks.*

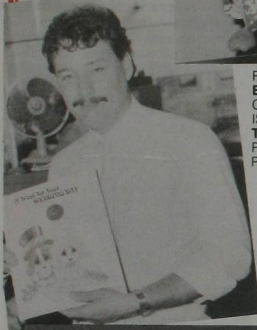
Two ex-apprentices in GSD.

Right: **Tim Bevan**, Chief Estimator

Below: **Robin Farr** of Tool Drawing Office.



Above: **Nigel Seamer** of ADD Model Shop and **Caroline Rudd** of ATED Production.



Right: **Bob Fisher**, Chief Estimator, ISD, and **Julie Turner**, ADD Progress, with Paul Robson.



Right: **Gary Bryant**, Software Manager, ADD and **Jayne Wood**, Chief Engineer, MASD.



Above: **Ian Reed**, Leading Hand Inspector in ADD Inward Goods, and **Helen Vickery**, Expeditor in ADD Purchasing, with 'Curly' Chids.



Left: **John Bunting**, Quality Assurance Engineer, ISD, seen here with John France, QA Manager, has married Jane Morgan.

Below: **Darren Boorman**, is a viewer in ADD Inward Goods.



## Engagement

We are pleased to announce the recent Engagement between Alan Ralph and Tracey McDonald, both of AS&R Division. Alan works as an Instructor in the Customer Training School, and Tracey as a Clerk/Typist in Invoicing and Documentation Department.

They first met a year ago at the AS&R Christmas Dance by the help of a mutual friend Gaylene Cadby who arranged the introduction. The actual engagement took place at the Lizard in Cornwall, which is the most southerly point in Great Britain.

The date for the wedding has not been formally set, but friends and colleagues will soon know when the maps of Scotland appear on their desks. They would also like to thank their friends in the division for their gifts and cards which they received.

## Am I dead? Or do I need more stress?

I recently filled in a questionnaire to find out my stress level. I had to count up all the top stressful activities like death, divorce, remarriage and bigamy and get a score under 200, otherwise I would be at risk. I scored more than 350, which is impressive. My wife, who was allowed to count a recent pregnancy, scored 390, which is very impressive. We should both be dead, apparently, and she should be very dead.

Where tests like this go wrong, of course, is in the ludicrous assumption that things like job changes or the death of a really close accountant are the big causes of stress. It's the tiny disasters that have the genuinely high rage/fury/frustration flashpoint. I feel nearest to having a heart attack when I am trying to wrench my way into the packaging surrounding four batteries or attempting to find an article on page 148 of a glossy magazine which has no page numbers between 38 and 206. These things are never listed. I'd like you to try this new quiz. Count your score at the end and I'll tell you how long you have to live:

■ Finding, just as you've finished stirring it, that your tea bag has disgorged its contents into the cup: 2 points.

■ Answering your front door bell, just as you're going out, and finding five total strangers standing there, whom you then recognise as your cousins, whom you then suddenly remember inviting over for the afternoon: 8 points.

■ Vainly attempting to remove the sticky, dirty mark made by shop labels on glass or crockery: 10 points.

■ Finding a large ink stain on the inside of your jacket: 5 points.

■ Finding a large ink stain on the outside of your jacket: 35 points.

■ Being rung by someone in a call box, taking their number, putting the phone down, ringing them back and finding them engaged: 22 points.

■ Discovering an unexplained red light on your dashboard: 7 points.

■ Finding out why, 500 miles later: 89 points.

■ Turning to introduce your wife to someone and forgetting his name: 5 points.

■ Turning to introduce your wife to someone and forgetting her name: 50 points.

■ Discovering, the first time you go to the lavatory, that you have had your underpants on inside out all day: 20 points. (It would take too long to explain why to female readers, but this is actually worse than having them on back to front: 10 points).

■ Realising halfway through doing a questionnaire that the questions are all designed for men, because they have been set by a man, that the quiz is worthless for you as a woman, and that the man doesn't even realise how sexist he is being: 1,170 points.

■ Setting down to watch the video you made of that great movie, and finding you actually recorded a programme on the adjacent channel starring Bob Monkhouse: 15 points.

■ Or Paul Daniels: 55 points.

■ Queuing in a bank behind someone who is trying to persuade the cashier that although he has an account elsewhere, no cheque book on him and no proof of identity, the cashier should give him lots of money: 10 points.

■ Queuing behind someone in a supermarket who has chosen to buy lots of things with no price label on: 100 points.

■ Queuing behind anyone in a health food shop: 1,000 points.

■ Finding in your pocket the key of the bedroom of the hotel you vacated yesterday: 10 points.

■ Knocking over and trying to restack a pile of magazines all of which have a free lipstick taped to the front: 3 points.

■ Going to the loo in someone else's house, finding that it doesn't seem to flush properly: 15-45 points, depending on time.

■ Seeing the stamp becoming detached from a letter just as you post it: 5 points.

■ Racing to a telephone and getting there just as it stops ringing: 10 points.

■ Getting to a phone just before it stops ringing, then spending the next half hour talking to your least favourite relative, unable to pour yourself a drink, even though she seems well away herself: 100 points.

■ Meeting an old mate in the street, chatting for a bit while trying to place him, then remembering afterwards that he is a well-known television face whom you have never met: 18 points.

**SCORES:** 1,000 points or more: contact an undertaker, as you will be needing him soon; 500-1,000 points: about right; less than 100 points: go to bed at once and stay there; 100-500 points: you need more excitement. Get remarried, lose your job or move house.

By permission of "The Independent" Miles Kingdon column.



# 25 years' service

**Alan Dane's** 25 years have been mostly spent in ADD as Quality Assurance Manager, a post to which he was promoted in 1967 when the A-7 contract was awarded. Alan has been involved with HUDs since he earlier joined Rank Cintel as Chief Inspector – among their products was the first HUD in the world, that for the Buccaneer. He came to Rochester when Rank were taken over by Elliotts, to be Chief Inspector of the former Data Analysis and Display Division. The early part of Alan's career was concerned with radar; during his military service he was posted to War Office permanent staff as lecturer, and this was the beginning of much international lecturing and consultancy work, on Quality Management and technical subjects. He has established many of the Quality processes and procedures now in use throughout GAv, and has always taken a keen interest in the training of apprentices and young engineers. He has been accepted as a senior member of the American Society for Quality Control, and has just passed another major milestone, completing 50 years as Organist and Choirmaster of various Parish Churches.

Alan received his presentation watch from Divisional Manager Keith Snelling, and is seen here with his wife Margaret. (B)



**Roy McDonald** completed 25 years at the end of last year and has since retired. This picture was taken when Divisional Manager Arthur Colwell handed over a presentation clock, recalling Roy's company service which started at Borehamwood as wireman – before that he had been in the Army and the Royal Navy, lately as radar mechanic in HMS Belfast 'up the Yangtze'. Then a lorry driver and with ICI. By 1964 Roy was here at Rochester on wiring shop supervision, and following the TSR2 cancellation he moved into ATED in Estimating, doing much to set up the standards to which ATED now work. (B)



**Mike Busbridge's** career started with BP, Grain, as a Student Apprentice for a year, then he came to this company as Lab Assistant in ETL, then part of FARL. But his connections with ADD date from 1967, when it was briefly amalgamated with ATED (as DADD). Those were the days of the first American contract – ILAAS – which led to A-7 HUD and subsequently the major business in the USA nowadays. With A-7, Mike was transferred from the work he was by then doing as Development Engineer, into Test where he worked on card test and rose to become head of production test. In 1970 he returned to Engineering to lead test equipment design on a HUD programme, and by 1972 was Project leader, on MRCA (Tomado) and Nimrod contracts.

By 1975 he was Project Manager, leading the 757 computer programme and a HUD programme for South America.

Increasingly, Mike was applying original thought and innovation in several technical areas, but particularly in new techniques for the generation of digital maps; this work won him the Haskett Trophy in 1982, and was the basis for GSD's recent award of the GR-7 DCMU contract. His flair for creative thinking was recognised by his appointment to his present post of Consultant Engineer, where he is now involved in several new developments, in concept and some due for flight testing.

Mike received his presentation from Keith Snelling. (B)



**Stan Dale**, during his 25 years, has worked in many divisions, including IND, MACD, TACD, ATED, ACD, again IND and now GSD where he is Wireperson.

Stan has many interests also, such as woodwork, sculpture, drawing, winemaking, picture collecting, mounting and framing, photography, classical music and ballroom and Latin American dancing.

Stan, who received a set of figurines from Bob Ruggles, is seen here with Sandra Burch, Wireperson, and Mick Hammond, Foreman, from GSD. (A)



**Don Price** has in fact spent much more than 25 years with companies now part of GEC, but English Electric (Guided Weapons Division) with whom he started in the early fifties left the group to join British Aircraft Corporation. It was in 1963 that Don came to Rochester in the appointment of Chief Engineer in ATED, heading a team providing a tape-controlled Automatic Test Set for the Swedish Air Force. In its day that was a state-of-the-art project – as are today's ATEs. In 1967 Don moved to FARL as Technical Manager, leading new concepts and technology from their beginnings, and in 1984 he became Chief Scientist.

FARL Divisional Manager Dick Collinson paid tribute to Don's contributions to innovative research projects, which have subsequently been exploited by GAv product divisions in a number of very valuable contracts.

Funding raised by him, in conjunction with colleagues, has supported many such programmes, and Don's clear scientific mind and lateral thinking approach set a benchmark for the successes achieved. (A)

**Doreen Shelley** served a Mechanical Engineering apprenticeship with a D.O. Contract Company.

Following her apprenticeship she worked for about three years in the Radio and Radar Division of Elliott Bros., as a contract Draughtsperson. Again in 1962 Doreen joined the company working in MACD and later in FID Drawing Offices, until in 1972 she transferred to IND D.O. She returned to ISD (as FID had now become) in 1978 as the Company's first woman D.O. Section Leader.

Doreen's main outside interest for many years was archery, now replaced by her love of gardening and dogs. She is seen here with her husband Vic who also works for the company as a D.O. Section Leader in FCD.

The porcelain figurine was handed over by Fred Mackley. (A)



**Ray Haworth** was promoted to his present post of Production Manager, GSD, only a very few weeks before completing his 25 years – all his previous time was in the TACD/FCD/CACD succession of divisions. After his apprenticeship, followed by 8 years in the Royal Navy ending up in Chief Petty Officer rank, he spent 6 years with an instrument company before starting at Rochester as Instrument Maker. Promotion to Foreman, Planning Engineer and Production Superintendent quickly followed, and when the divisions merged in 1970 to form (old) FCD Ray was appointed Project Controller.

In CACD successively from 1979 he was Chief Production Engineer, Assistant Production Manager and in February last year Deputy Production Manager, before moving in August to GSD.

In his spare time, Ray enjoys gardening and model making.

Here he is seen receiving his award from John Spinks, Assistant Managing Director. (A)



25 years' service continued on page 10



25 years' service continued from page 9

Logistics Engineer **Roy Nicholas** of ATED was in the Dockyard and Reeds before joining this company in Technical Library, which was then in MACD. For some time he was personally responsible for maintaining all documentation for the company aircraft pilots, in addition to normal tasks. It was 1981 when he moved to ATED Tech Pubs, on spares compiling, an activity which now comes under Logistics. In spare time, Roy follows his interests in golf, golf and golf as a member of the GAV Golfing Society, but also does some indoor bowling as a member of the division's team. His wife Lesley also seen here, has worked in IND/GSD for 15 years. She has recently taken up horse-riding.

Arthur Colwell presented Roy with a camera. (B)



**Graham Mason** started out on the path towards his present position as Chief Systems Engineer in PSD when he first built a crystal radio in 1955. Some years later at the age of 17 he had a full 'ham' license and had built his own station. With this experience he was able to persuade Elliotts to give him a job as TA. He has since been involved in almost all aspects of avionics, during his service which started in MACD and progressed through the entire history of PSD – he was among the first half-dozen people to join the division when it was formed.

A man of Kent by birth, Graham now owns a large old house in Queenborough, on the Isle of Sheppey, where he is a town councillor. This location suits his lifelong interest in things nautical, even allowing the occasional venture onto local waters.

Divisional Manager Ian Stitt handed over Graham's presentation clock.



## 49 YEARS REMEMBERED BY DAVE HARRIES

"I joined the company, Elliott Bros at Lewisham in 1938, as an apprentice and qualified as Instrument Maker in 1943; in this position I worked on large Gun Fire Control systems in the old MEL division. In those days the equipment was mainly mechanical and hydraulic, as shown by the team of 125 Instrument Makers and one Wireman. During that period I started to specialise in Gimbal and Gyro assemblies, which I'm sure set the pattern for some of the moves during my career.

In 1952 I was promoted to monthly staff as Test Engineer, and commenced testing a new gunfire control system being fitted to 'D' Class destroyers, installing and commissioning equipment on the ships, some of them in Chatham Dockyard.

In 1954 the company bought out Bristol Instruments at Weymouth and decided to set up MEW division there, to be close to Admiralty establishments at Portland, as most of our development work and production contracts came from there. I was offered and accepted the position of Technical Supervisor. Most of the work was on gimbals and gyros and was very interesting, but we did not get the orders we expected and the company decided to close the division, after doing some gear box assembly work for Borehamwood.

However, instead of moving back to Lewisham – this was in 1958 – I was invited to join IN Division at Rochester which was then being formed for production of the Blue Steel missile (later cancelled), but first I had to go to Borehamwood where the development work was being carried out. I spent nearly a year there, with staff sent up from Rochester to learn how to build the Inertial Platform. I finally came to Rochester in 1959. I was made responsible for the mechanical side of Blue Steel production, first as Technical Supervisor then as Production Engineer with planning progress, fitters, and wiremen under my control. IND production Staff built up from around 40 to over 400 at one period.

I was promoted to Assistant Production Manager in 1963 and then after a year to Production Manager of IND. This makes over 20 years as Production Manager, over a period in which IND has been involved with a number of major projects, such as the ASW Nimrod's E3 inertial platform system, Central Tactical System and Central Navigation System; NCS1 Naval Compass stabiliser, and the Jaguar NAVWASS system.

More recently, after the merger of IND and Gyro combining their experience in gimbals and platforms and in gyro systems, I have been Production Manager of the combined GSD, and we have worked or are working on systems for Sky Flash and Sea Dart missiles, the Scot sea/air missile system, Javelin infantry missile, Sting Ray and Spearfish torpedoes, Phoenix unmanned aircraft and Multi-launch Rocket System (MLRS) for the NATO forces. This is of course not including the 'electronic' side of the business.

A long and varied career! The last few months before retirement were spent as Production Consultant. And besides all the above, I have been at various times keenly interested in sports such as cricket, fishing, gardening, photography; during the war I was in the Home Guard, and I have been President of the Long Service Association as its most senior member for many years."



John Spinks bade Dave farewell and handed over gifts including photographic equipment from a host of friends and colleagues. (B)

# Retirements

**Maurice Melville's** 30 years with the company followed an earlier association with the factory, since his apprenticeship was served with Short Bros.; he spent 16 years with them although ten of these were in Belfast. When Maurice joined Elliotts he continued his draughting expertise and in the former MACD he rose from Senior Checker to Asst. Chief Draughtsman. With his promotion in 1967 to Chief Draughtsman, Maurice began his long association with ISD and its predecessors; apart from a year in IND as Chief Draughtsman, he has served ISD under eight Divisional Managers, as Engineering Services Manager since his return from IND in 1973, and Divisional Services Manager since 1982.

Maurice married comparatively recently 10 years ago, but for very many years has been closely associated with the work of the church, particularly with preaching as a Lay Reader, and with promoting the Rochester Industrial Chaplaincy. Also, in the sixties and seventies he was actively engaged with the Medway Productivity Association, and for 20 years has been Associate Member of the BIM, RAeS, and Ergonomics Research Society, and a member of the British Computer Society.

A large number of Maurice's friends and colleagues came to wish him well at a gathering in the Lounge Bar.

Daylight at last! **Ken Martin's** 35 years with the company ended after 25 years as Nightshift Superintendent, reporting since 1971 to WES. But he may also be remembered by some in the former IND and MER Divisions. Don Freeman thanked Ken for his long service and passed on the good wishes of many friends – including daytime people. (B)



**Doris Phipps**, Assembler in GSD since 1969, spent the earlier part of her 34 years with the company with Swift and Swallow and AEID.



**Roma Collier**, Bought Ledger Clerk, in Accounts since 1979.



Retirements continued on page 11



Retirements continued from page 10

**Doug Sidwell** completed 31 years with the company – lately as Methods Engineer in CMS.



**Ron Bridger**, Inspector in ATED Inwards Goods, has been here for 13 years.



The last 15 years of **Rita Blunden's** 30 years with the company were in MASD, where she was typist.



**John Hughes**, Electrical Inspector in ADD Model Shop, previously in Production, was with the company for nearly 20 years.



**Des Whitmore**, ten years with the company, moved from ATED to FCD, where he was Assistant Stock Controller.



**Harry Allcorn**, Wireman, has retired after over 13 years in ADD.



# Sports and Social Club Round up



## GAV/BP KENT SWIMMING CLUB Annual Gala and Prizegiving

On 2nd January, 80 children took part in the Gala, Junior Gala and Lifesaving Rope Throwing Events. The Gala was followed by a tea party in the Dance Hall. All children who took part received a present and chocolate selection from Father Christmas. Annual awards were then presented by our guests, Bert and Vera Westover. Jack Maude presented the Jack Maude Lifesaving Trophy.

The evening was finished off with a disco. Our thanks to the management committee for their support. Also we would like to thank parents who helped on the day and provided food.

### Annual Awards

Tuesday Width 1  
Thursday Width 2  
Tuesday Width 1  
Thursday Width 2  
Mother & Baby Boy  
Mother & Baby Girl  
Tuesday Length  
Thursday Length  
Jack Maude Lifesaving Trophy  
Best Lifesaver  
Best Lifesaver

Progress Award  
Progress Award  
Progress Award  
Progress Award  
Progress Award  
Progress Award  
Progress Award  
Progress Award  
Trophy  
Gent  
Lady

A. Franks  
F. Newman  
K. Pethig  
S. Mistry  
A. Lloyd  
H. Pinner  
M. Covington  
I. Snelling  
M. Atkinson  
R. Newman  
D. Dutton

Best Lifesaver  
Best Lifesaver  
Best Improved Style  
Best Improved Style  
Rose Trophy  
Chairman's Trophy  
Endeavour Award  
Most Dedicated Boy  
Most Dedicated Girl  
Medway Shield

Boy  
Girl  
Boys  
Girls

C. Samuels and A. Jibb  
T. Saunders and M. Judges  
S. Marshall  
S. Moffett  
P. Greest  
M. Atkinson  
J. Marshall  
J. Jibb  
C. Jibb  
J. Greest  
R. Jibb



GAV/BP Kent  
Swimming Club  
continued on page 12.



## Age Group Championships

### BOYS 11 and UNDER

1st D. Jibb	13 points
2nd S. Jamieson	6 points
3rd A. Gilbey	4 points

### GIRLS 11 and UNDER

1st S. Michie	10 points
2nd H. Maxey	7 points
3rd C. Taylor	3 points

### 450 YARDS FREESTYLE

MENS	TIME	LADIES	TIME
1st R. Jibb	5-32-30	1st N. Holt	6-43-44
2nd P. Carpenter	6-31-88	2nd Z. McDonald	7-07-43
3rd J. Marshall	6-36-27	3rd J. Greest	7-08-40

### BOYS 13 and UNDER

1st P. Pearce	12 points
2nd C. Jibb	10 points
3rd N. Coppard	7 points

### GIRLS 13 and UNDER

1st S. Moffett	11 points
2nd C. Davies	7 points
3rd E. Snelling	6 points

### 100 YARDS FREESTYLE

MENS	TIME	LADIES	TIME
1st R. Johnson	57.60 secs	1st N. Holt	1-11-13
2nd M. Carpenter	1-01-66	2nd Z. McDonald	1-17-38
3rd R. Jibb	1-04-18	3rd J. Greest	1-29-67

### BOYS 17 and UNDER

1st R. Jibb	14 points
2nd M. Carpenter	7 points
3rd J. Marshall and C. Jibb	4 points

### GIRLS 17 and UNDER

1st N. Holt	12 points
2nd Z. McDonald	10 points
3rd J. Greest	8 points

Most Improved Style Boy  
Most Improved Style Girl  
Chairman's Award  
(Outstanding contribution to the Swimming Section)

P. Greest  
M. Atkinson  
R. Carpenter

## Adult Swimming Lessons

The next course of lessons starts on Monday 14th March 1988. Time 8.15 pm to 9.15 pm.

**FEES**  
Annual Subs £5 per year per family  
Beginners Fee £5 for a course of 10 lessons  
Improvers Fee £3 for a course of 10 lessons

Only teachers and pupils are allowed in the pool area during coaching – thus avoiding any embarrassment for the pupils. Our teachers are Dennise Dutton, Colin Newman and Connie Gilbey.

If you would like to learn how to swim or would like to improve your stamina or skill, contact *Cyril Moffett, Works Ext. 4241, Home Medway 48707.*

# Club-House attractions

**MARCH**

11 Friday  
Children's Disco  
with  
**"A x A"  
DISCO**  
7-10pm

12 Saturday  
**THE  
JOHNNY  
YOUNG  
BAND**  
7.45-11.45 pm

18 Friday  
Soccer Section  
Disco  
with  
**"MAXI'S  
DISCO"**  
7.45 'til late

19 Saturday  
Social Dance  
with  
**"PEBBLE MILL"**  
7.45-11.45 pm

25 Friday  
Sub Aqua Section  
Adult Disco  
with  
**"THE  
STATE LINE  
DISCO"**  
7.45-11.45 pm

**APRIL**

2 Saturday  
Easter Dance  
with  
**"SPIRAL"**  
7.45-11.45 pm

8 Friday  
Children's Disco  
with  
**"X-OCET"**  
7-10 pm

9 Saturday  
CACD  
Dinner Dance  
with  
**"HAPPY DAZE"**  
7.45-11.45 pm

16 Saturday  
Swimming Gala  
and  
Disco  
6.15-10.15 pm

23 Saturday  
ParLOUR Derby  
Evening  
8 pm

Please note  
that the  
**Swimming Pool**  
will be closed  
on **Saturday,**  
**26 March**  
until **6 pm,**  
and also  
closed until **6 pm**  
on **Saturday,**  
**16 April,**  
due to  
Swimming Galas.

# REAPER CLUB

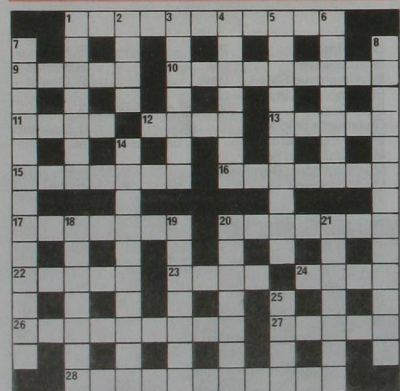
The Annual Christmas Dinner and Party was a resounding success. Over 260 members enjoyed a Seasonal Dinner provided and served by the Canteen Staff, under Mr. Bill Gostling. The company were honoured by the attendance of Mr. and Mrs. Ron Howard. Mr. and Mrs. Howard performed the presentation to Mr. and Mrs. O'Rourke, on the occasion of their Golden Wedding. The usual musical honours were provided. The highlight of the evening was the Cabaret, which was provided by two local Medical men, Dr. Norman Grant, on the piano, and Dr. Duncan Marry, Singer and Performer. The killed duo provided plenty of laughter, delight and enjoyment, and we look forward to a repeat performance.

It is understood that they entertain the elderly, restricted persons, and hospital inmates during the year, bringing happiness and gladness into lives.

The January meeting was the Annual General Meeting, when reports were received and the Election of Officers. All Officers and Committee were re-elected, except Mr. N. Shoebridge, who declined through ill health, and Mr. George Hilburn was elected to fill the vacancy. Membership Cards were issued, and Subscriptions taken. The evening ended with the Raffle and Bingo.

At the Annual General Meeting of the GAV/BP KENT CLUB, the following were elected to the vacant seats on the Management Committee –

**Rod Cole (MASD)**  
**Jim Troy (CACD)**  
**Hugh MacArthur (Training)**



### Crossword No. 89

For amusement only

#### ACROSS

1. William as a rookie. (7-4)
9. Appertaining to the non-urban. (5)
10. Feathers so soft, light and warm. (9)
11. A Scottish Christian Island. (4)
12. A reaction or waterproof covering. (4)
13. Female relative. (5)
15. The forcing agent, U.S. style. (7)
16. Sowing results or interposed in conversation. (5-2)
17. A crime committed, so. (7)
20. An example or shape. (7)

#### DOWN

1. A tapering vegetable. (7)
2. Land surrounded by water. (4)
3. Reply to a question. (7)
4. Stretch material. (7)
5. All the details, coming and going. (3-3-4)
6. A female animal. (7)
7. A bivalve mollusc in the rolling mid-west. (7-6)
8. An undefined era, for fairy tales. (4-4-1-4)
14. A worker who deals with masonry. (10)
18. Never ceasing or ending. (7)
19. An East African country – in the news. (7)
20. Came down heavily for. (7)
21. The very learned person. (7)
25. Indian ladies dress. (4)

#### Solution to Crossword No. 88

- Across**  
1. Frankincense; 10. Fight; 11. Cleopatra; 12. Exercises; 13. Abyss; 14. Almost; 16. Hands off; 18. Arrested; 20. Primer; 23. House; 24. Guildhall; 26. Overdraft; 27. Inter; 28. Stratosphere.
- Down**  
2. Rogue; 3. Notices; 4. In case; 5. Chessman; 6. Nap hand; 7. Entry form; 8. Alter a fashion; 9. Cause for alarm; 15. Marauders; 17. Sergeant; 19. Spender; 21. Reddish; 22. Hiatus; 25. Astrir.

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

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