

Standard Central Air Data Computer

Friday 9th October saw the formal handover to ISD's Customer of the 1000th SCADC unit. after only a year's production.

At a ceremony in the Conference Suite, Colonel Raymond Shulstad, USAF, Deputy Commander for Aeronautical Equipment, Aeronautical Systems Division, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio received the computer from Ron Howard.

Col. Shulstad was acting on behalf of the US Navy as

well as the US Air Force, since the two services between them operate the 38 aircraft types and variants to which SCADC are being fitted. The ISD programme will provide nearly 4000 units, with a contract value for export of some \$135m, against all three of the production orders so far placed for SCADC.

On the previous day Col.

See Page 8

for the background to this major achievement

LOOKING

As this issue goes to print, important events are happening, which will be fully reported in future editions.

ADD's formal presentation of the Queen's Award for Export by Her Majesty's Lord Lieutenant for the County of Kent takes place on Friday 16 October, followed by the division's Open Day, on the

At Basildon on 9 October, Electro-Optical Surveillance Division received their Queen's Award for Technology, which was awarded jointly with Airborne Display Division and RAE Famborough.

On Wednesday 4 November, ADD's Falcon Building is to be formally opened by the Chief of Defence Procurement, MoD, Mr. Peter Levene. See your GAv News soon.

SENIOR APPOINTMENTS

Managing Director Ron Howard has just announced some senior appointments in the development of his internal management

John Colston is General Manager, Controls an Instrument Systems Group, and Robin Sleight is General Manager, Displays and Guidance Systems Group.

Keith Snelling takes up the post of Divisional Manager, Airborne Display Division and Simon Frost succeeds him as Divisional Manager, Combat Aircraft Controls Division.

Before the event, Divisional Manager Fred Mackley said -

Not so much a project more a way of life!

"SCADC is a team game. From the proposal stage in 1981 to the 1000th production unit today, staff at all levels in the Company have been emotionally involved in a programme which has been, and remains, a hard taskmaster. Everything happens faster on SCADC. Failure can turn into success overnight. Small problems turn into major problems just as quickly if Ignored. The pace of the programme has demanded changes in attitude from subcontractors and Company staff alike. Regretfully, a few have not been able to make that change, but the vast majority have grown with the programme and produced a record-breaking output of air data computers in the first year of production. "I cannot mention all the participants for the list is encless, but today I must pay tribute to the US Air Force and Navy team that conceived such a programme, have driven us over the past six years and given us the chance to be part of such an exciting and

rewarding task. Company commitment on this programme has been outstanding, from the personal from the UK.

"It has to lead to

"It has been my privilege to lead the SCADC programme from the proposal stage through to full production with the most skilled and enthusiastic team in our business. It will be a hard programme to follow and impossible to forget.

Our thanks to everyone involved."



'A miracle? No, it's teamwork and a good contractor' said Colonel Shulstad. (L-R: The Mayor of Gillingham, Fred Mackley, Col. Shulstad, Ron Howard, and The Mayor of Rochester.)



Visit by 'THE SHARKS' **RN Helicopter Display Team**

On Monday September 14th, GEC Avionics staff gathered in the Main Car Park to watch



The Sharks offered to mount this display to thank the Maritime Aircraft Systems Division for their sponsorship during the last year.

Every member of the Team is a qualified and practicing helicopter instructor. Together, they spend all their spare time during the summer months staging flying displays around the country. Before coming to GEC Avionics, their previous engagement had been at Duxbury over the weekend, so we provided a convenient

stopover on their way back to base at RNAS Culdrose. After one day at home, the team flew to the Channel

valuable opportunity to talk to front line pilots. During tours of ADD and GSD the Team were impressed by the latest in night vision goggles (Cats Eyes) and the advanced Moving Map.

Air Floor, Airport Works Rochester, Kent Extension 3852 (Medway 44400)

John Walliker, who has just retired (report next issue), asks me to convey his thanks to the many people who contributed to his retirement present. Also to those who took time to attend his farewell evening, and those he was unable to get to see. John's move to Yorkshire has been delayed, but is still much looked foward he.

on Sports Day at Deangate, 11th July A CAMERA Please apply to Eileen Papworth, Social Club Office, Ext 4058.

Parading for Charity



On Saturday 19th July, a vintage car was decorated and Noddy, Big Ears and other story book characters entered the Medway Carnival to raise funds for the Molly Wisdom Hospice. This was organised by Mrs. Linda Atkins. CACD Contracts Department, and the participants were from CACD, ADD and outside GAv. This entry won the first prize.

Japan Airlines

Test Equipment Contract

A total of £380 was collected from sponsors mainly within GAv Rochester and this has been forwarded to the Molly Wisdom Hospice. As a matter of further interest, seen in the background is the brand new Chatham Old People's Welfare Minibus, just delivered to replace the old one we pictured recently, and which had just paraded in the Camival. Thanks are due to all who contributed to that cause.

CHESS PROBLEM

White to play and mate in two moves



Solution to Problem No. 11 ONE OVER THE EIGHT!

nature of the ORION itself, by drawing on a range of enabling it to meet a standard sub-assemblies customer's specific needs, already in production. **EX-APPRENTICE** WINS

NATIONAL **SCHOLARSHIP**

ATED has won a contract to supply an ORION 4400 series automatic test equipment (ATE) to Japan Airlines.

JAL will use the equipment in servicing the important cartial navigation systems (INS) and performance management systems (PMS) which are fitted on its Boeing 747 fleet. This member of the ORION family of ATE can rapidly test the electronic modules of the INS and PMS used on all JAL's 60-strong Boeing 747 fleet.

"ORIONS have now been selected by two major of the INS and PMS used on all JAL's 60-strong Boeing 747 fleet.

"ORIONS have now been selected by two major and save as a selected by two major and provided for the INS and PMS used on all JAL's 60-strong Boeing 747 fleet.

"ORIONS have now been selected by two major and save as a selected by two major and provided for the provided for a minimum of "down time".

ATED have so far delivered over 40 ORIONS world-wide, both to support electronics production and for maintenance, including an ORION 4420 in service with British Airways. ORIONS are also used in the maintenance of Lockheed L 1011, BAC 1-11 and Concorde avionics, as well as being the standard production ATE with our avionics for Airbus equipment and a wide range of defence electronics. "ORIONS have now been selected by two major airlines" said Arthur Colwell, Divisonal Manager "and we are talking seriously to several others. We believe our flexible design can accommodate the growing desire by world airlines to reduce maintenance costs through a modular approach to avionics repair and test". The ORION being supplied to JAL is complete with 50 test program sets which will quickly diagnose a fault on any module and rapidly verify it after rectification.

The ORION 4400 will be delivered to Japan in December this year, along with adapters for connecting each module type to the ATE, and an initial batch of test programmes. This short delivery time has been made possible by the modular

David Wood is one of two ex-apprentices who were supported by the Company in applying for a Whitworth Scholarship this year. He is now a Student Technologist, studying for the BEng (Hons) in Electrical & Electronic Engineering at Surrey University.

David has been offered a Whitworth Scholarship, one of only ten given nationwide each year. He will be entitled to a cash award for the two remaining years of his

course, and will be able, on successful completion of his degree, to use the additional title 'Whitworth Scholar'.

The Whitworth Scholar-ship, now administered by the IMechE, is a long-standing award. It is now devoted to the encouragement of young people from a technician-type background going on to degree courses, by the recognition of outstanding success in that progression. Well done!



Canadian Forces select our Airborne Computers

Prototype Air Data Computers to upgrade Northrop F-5 Fighters

selected to supply prototype
Air Data Computers for
Canadian Forces CF-5A and
CF-5D fighter aircraft. Under
the terms of a contract
awarded by Bristol Aero-

space Limited of wirnipeg, a leading producer of Aero-space products, technology and services, ISD will supply two computers in early 1988 for flight tests. It is expected that production orders will

follow soon after the tests. The new computers will be designed to replace the aircraft's existing analogue equipment with a modern digital equivalent, and will be suitable for all variants of the

Northrop F-5, of which there are many in service around the world.

Air Data computers play a central rôle in modern military aircraft, providing data, related to airspeed and altitude, required for the correct operation of many kinds of on-board systems. The digital computers represent a great saving in life-cycle cost over existing equipment, combined with increased reliability and easier maintenance.

MASD's

Sonic System

for the

Italians

The first updated Atlantic 1 for the Italian Air Force took off at Colomiers, France on 7th July. This aircraft was updated by Avions Marcel Dassault Breguet and the update includes the AQS 902C from MASD.

The addition of this system, replacing an earlier US equipment, will extend the sonobuoy processing capability of the aircraft. MASD delivered the first systems on time and the

CHIEF OF AIR STAFF **VISITS ROCHESTER**

On 4th September our Chairman, Sir Michael Beetham, was host to Air Chief Marshal Sir David Craig, GCB, OBE, ADC, MA, FRAeS, RAF, Chief of the Air Staff, and Air Vice-Marshal G. C. Williams, AFC, FRAeS, RAF, Assistant Chief of the Defence Staff

(Air Systems).
Presentations Presentations on the company and its new organisation were made by Ron Howard, and by John Spinks, Ray Reese and David Clews on their respective DGS, CIS, and SCS

During the day our guests visited ADD, ISD, and the Engineering Dark Room in Corsair Building, to see demonstrations of equipment and manufacture in progress. ment an progress.



One of the visits was to ADD, where the Colour Map Display and Ridgeline Enhancement aspects of our TPA (Total Terrain Avionics) System were demonstrated. From left to night: John Sprinsk (Assistant MD): Sir Michael Beetham, a member of RAF Staff, Ron Howard (MD), with Jack Stone (GSD Marketing Executive) explaining the system to the Air Chief Marshal and Air Vice-Marshal. Systems Engineed David Pulseton in attendance from the ADD team.

Distinguished Guest of RAeS

Dr. John Fozard, OBE, FEng, FRS FRAeS has a number of connections with this company and has twice visited Rochester in the last few weeks, accompanied by his wife Gloria.

In July, following an invitation extended to him while he was visiting the GEC Avionics National Gliding Championships at Lasham, Dr. Fozard came to see the aircraft preservation work being undertaken by the Royal Aeronautical Society Medway Branch under the auspices of GAv. He also toured ISD to see the production of SCADC units, and saw the Sunderland flying boat at the Historic Dockyard.

Dr. Fozard, Past President

– Sir Sydney was of course the designer of that aircraft, which was made by Hawker (later Hawker Siddeley Aviation) for whom Dr. Fozard worked for nearly 30 years. 1987 is being celebrated as the Hurricane's Jubilee year. The Memorial Lecture in the Main Canteen was attended by around 250 people, and was followed by a company dinner for the distinguished guests who also included Air Marshal Sir William Richardson, Chief Engineer Royal Air Force, and Group Captain Robbie James, Chairman of the RAF Historic Aircraft Committee. Principal hosts were Jack Pateman and Peter Heame (President of Medway Branch RAeS).

Medway Mustangs American Football



Anyone interested in trying out for the Team?

The Mustangs are an established Budweiser League Division I team representing the Medway area since

1985.
This year's team will be coached by U.S. Air Force Captain Timothy O'Brien, Officer-in-Charge of the resident Air Force Office at GEC Avionics, Rochester.
Practices are held each Thursday evening November through June, 8.00—10.00 pm under the

lights at Strood Sports Centre's astro turf pitch. Unless a "friendly" game is scheduled, each Sunday (November – March) from 10.00 am to 12.30 pm is reserved for an additional practice session. A ten game league season starts in April.

For more information contact Captain O'Brien at (0634) 812464, Steve Green (0634) 573483, Tony Ryan (0634) 371054 or Chris Arundel (0742) 849152.



Dr. John Fozard is seen here visiting the Hurricane in the RAeS Preservation Group workshop on Rochester airfield.

GAv Teams with Rockwell on Laser Navigation for **NATO** ships

Guidance Systems Division has teamed with the Auto-netics Marine Systems Divi-sion of Rockwell Interna-tional Corporation, Anaheim, California, to offer a ring laser gyro-based navigation system (RLGN) for NATO ships and submarines

system (RLGN) for NATO ships and submarines. The RLGN is the GEC/Rockwell candidate for the NATO Ships Inertial Navigation Systems (SINS) Programme, in which the participants are Canada, the Netherlands, Spain and the United Kingdom.

The RLGN is based on a Rockwell system which has already been proven seaworthy and has demonstrated outstanding reliability and accuracy. The contains an reliability and accuracy. The system contains an advanced inertial measurement unit which employs Rockwell's G16B precision laser gyros and a single 3-axis electromagnetic accelerometer. The highly reliable G16B gyros are silent in operation and provide advantages in performance and shock

resistance over conventional rotating-mass gyros.
The system, which fully meets NATO specifications, includes a Control and Display Unit customised by GSD for this application. This Unit provides the interfaces with the operator and ship, and performs the processing necessary to convert spatial motion measurements to precise and continuous output data on ship's position, velocity, attitude and attitude rates.

The RLGN represents the

state of the art in shipborne

state of the art in shipborne navigation systems, offering superior reliability and accuracy at a cost competitive with conventional systems currently in use.

Both companies are established suppliers of military inertial equipment to world navies and are combining their considerable experience for the first time on the NATO SINS Programme.

JEANETTES'S DANCING!

Seventeen year old Jeanette Cobb has recently been pre-sented with one of the UK's top dancing prizes – the prestigious First President's Award.

ing her YIS training in AS&RD Logistics Dept. has been dancing for eightyears. In that time she has gained seven badges and some thirty medals (which to the uninitiated take the form of cups and statuettes) in her chosen specialities of Ball-room and Latin American Dancing.

The four President's Awards have only been in existence for just over a year and are second only to the International grader.

Jeanette's burning ambition is to gain her Second President's Award—this she hopes to do in December. In the meantime she is training for two nights a week and we wish her success. She is also taking driving lessons for the oright seach week—lets hope she dose? I cet them mixed.

nights each week - lets hope she doesn't get them mixed



OBITUARIES

George Weller

After a long illness in which he still managed to remain active (he was last on site in July), George died peacefully on Monday 3rd August.

The funeral was at the Medway Crematorium,

Robin Hood Lane

Robin Hood Lane.
George was born in Strood, attended Rochester Technical School, served in the Wartime Army, in India, and joined Elliott Bros in 1957.
He was well known in the fishing world as an expert on Carp, with articles in the Fishing World Press, and was an enthusiastic brewer and drinker of home made beer, also a keen breeder of birds—linnets, finches, etc. with a large aviary at home. George worked in MACD, AS&RD and ADD and lately for GAv as Company Production Engineer.
He leaves a wife, Ada and two daughters, Sue and Carol. Sue has a daughter Lucy, and Carol lives in the USA where George visited not so long ago.

T.H. Benger (Tom)

1.H. Benger (10m)
It is with deepest regret that we record the death on 16th September 1987 of Mr. T.H. Benger, a member of The Reapers (65 Club).
Tom, to his many friends, joined the Company on 25th June 1962 as Assistant Security Supervisor after serving 30 years in the Kent County Constabulary. He retired on 3rd September 1975 as Security Adviser to enjoy his hobbies of cricket (he was a qualified umpire), bowls and gardening with his wife Grace always at his side.
During his time with the Company he helped many people and was always available with a friendly ear to give advice and assistance to those with a problem.
In my early days as Assistant Safety Officer Tom

ith a problem.

In my early days as Assistant Safety Officer Tom was a source of information and encouragement and I learnt a great deal from him. They do not breed "coppers" like Tom Benger

The sympathy of the Security Staff goes to his widow Grace, son Brian and daughter Ann who were his whole life.

Norman (Robbie) Robson

It is with deep regret that we learn that Norman "Robbie" Robson, who was Materials Controller in AS&RD for 18 years, passed away on 29 May. Robbie, an ardent Gills supporter, was suddenly taken ill after the match with Swindon. He was a popular character within the division and a devoted family man who will be greatly missed by exercises.

Old-Time Dancer? c. 1957

Does anyone recognise this budding 'Fred Astaire?' Perhaps AS&RD can help with the clue!



Grand Challenge Match

ADD 'A' Team and ADD "Stores" fought out the final of the ADD Divisional Championship on Thursday 18th September.

At the end of the Bat and At the end of the Bat and Trap season, during which ADD 'A' Team had enjoyed only a modicum of success, due of course to injuries, bad pitches, faulty traps/bats/ balls and any other excuse they can think of, but mainly due to Jane (Whirlwind) Wallace's bowling decline and Martin Searle's suicidal batting and nothing to do with the skippers inspired

captaincy 'A' finally showed their true class with a slick 2–1 thrashing of the upstart challengers.

The game was played on the full Grand Prix length pitch at the "Sherwood Oak" in front of a mass of spectators (thanks for coming Mrs. Goodearle).

The first leg was a low scoring load of rubbish, with both teams trying to come to terms with the almost impenetrable darkness. Stores were allowed to run out the winners at 13 for 3 to 12.

ADD Bat and Trap

The second leg started with a good knock of 17 by Paul Goodearle, the Stores' highest scorer of the night. Pity that the rest could only manage another 2 runs between them! ADD 'A' soon saw this off for the loss of only 5 wickets. Ian (The Leering Codger) making 11 n.o. So, into the decider, ADD 'A' batting first. Alan Holding and Clive Tilley both slashed out for 2 and 4, Martin did his usual duck, Jane was again bowled for a good 11 But the best performance was by Tony (where did he get that hat?) Giles, his 13

runs laid the foundation for a total of 33 and the Stores were staring defeat in the face.

face.

A couple of quick wickets set in the rot, and even Colin (Two Ton) Tullet could not raise his game, so that Stores were all out for 9.

The evening closed with the presentation of the "Karen White Memorial Trophy", donated and presented by the young lady herself, who also scored and umpired. Our thanks to her and all who turned up.

Recording a programme on video is child's play . .

... and labelling it is torture

Major Causes of Heart Attack. Stress, etc -

Sticky Labels for VHS cassettes

Professor Brian Whelp, who heads the Applied Stress department at Milton Keynes University, believes that fixing the labels on cassettes is a major cause of heart attack, for one very simple rearror.

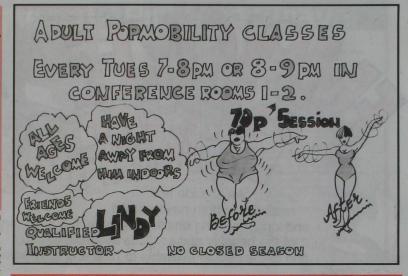
heart attack, for one very simple reason.
"It's the prime example of technology clash."
What is technology clash?
"It happens when a primitive technology is used in tandem with a modern method."
Could you give us an example?
"Yes, if you'll just stop asking questions for a moment. A simple example is in modern cameras, which use the most sophisticated electronic methods to take the picture, but use an old-fashioned strap for carrying. If the strap breaks, or the fastening snaps, the camera can be ruined, and the photographer will be under sudden stress because his high-tech gadget has been

damaged by an age-old technology failure.
"Luckily, camera straps very rarely break. However, every time you use or buy a video cassette, you have to use the sticky labels. Now this is crazy. They have developed the most sophisticated little box imaginable for recording your favourite film or programme, to keep for ever, yet they haven't developed a way of putting a sticky label on your cassette before you get it. It's as if the cassettes themselves were designed by a genius, and the labels by an idiot."

Professor Whelp lists 10

Professor Whelp lists 10 major basic flaws he sees in the design of video labels.

- They never quite stick in the space allotted, but always overlap slightly and eventually jam the machine.
- 2. The edge of the label starts curling back after a while, and eventually jams the machine.



3. If you number your tapes, there are never enough number 1s to peel off, and always too many 7s

off, and always too many 7s and 9s.

4. The diagram showing which label goes where on the cassette and cassette holder is completely incom-

holder is completely incomprehensible.

5. The idea of having four separate labels to peel off and stick on the cassette and holder is lunatic. Do we have to write addresses four times on letters? Do we have to dial four times to get a phone call?

6. If you write on the label.

6. If you write on the label in pencil, it doesn't show.
7. If you write in pen, you can't re-use it.

8. The labels are so full of advertising for the make of cassette that there is very little room to write anyway.

tle room to write anyway.

9. The label-makers give you silly little pictures of children, footballers, film stock and masks of tragedy, as if TV programmes could only be for kids, sport, old movies or plays. As Professor Whelp points out, how could you classify a programme featuring, say, Professor Whelp talking about the major stress factors of VHS cassette labels?

10. No matter what you write on the label, the video always reverts to being an old James Bond movie.

"What this adds up to is the fact that recording a programme is child's play, and labelling its torture. It should be the other way round.
"What we have here is technology clash at its greatest – every time a person loses their temper as they struggle with video labels, that heart attack is coming nearer.
"It is no coincidence – and I want you to think about this very seriously – it is no coincidence that the British are the heaviest users of video in the world and have the highest rate of heart attack."
But it must be so easy to bring video labels into the twentieth century. Why

hasn't it been done? Why are TV programmes recorded instantly by electronics, and their names recorded with a pencil on four sticky labels that won't stick on properly? "Between you and me, says Professor Whelp in a whisper," I sometimes wonder if it isn't a Japanese plot. Do you think it's possible that they are trying to kill us all off? And the only people left alive in 50 years' time will be radio listeners?"

Who knows?

Some Thoughts for Newly-Weds

Eighteen months ago, we reported that one of our engineers, John Apiln, was to become a Lay pastor of a local Church, Emmanuel Congregational Church in Waldersiade. John now tells us that he passed a major milestone in his pastorate on 8th August when he conducted his first wedding service. But as well as being a notable event for Pastor John (and the happy couple of coursel) it was something of a special day for a number of GEC Avionics employees. The bride's mother is Mrs. Muriel Clarke, a typist in GSD Quality Assurance Department, who was for three years Church Secretary at Emmanuel; the organist Mr. Tom Hamill is FCD's Marketing Manager, and Pastor Aplin is otherwise Phoenix Systems Manager in FCD. In his address to the young couple, Pastor Aplin mentioned four new things that

Christian marriage brought; a new start, a new relation-ship, a new status, and a new

ship, a new status, and a new home.

The marriage is a new start, and in a sense nothing will ever be the same again. It starts in prayer, and as Jesus says in the book of Revelation "Behold, I make all things new". Their new relationship will exceed anything they knew before marriage, and whilst it won't always be easy, they will always be easy, they will always be able to start again. The pastor reminded them especially of the verse in Ephesians "Do not let the sun go down on your anger".

Ephesians "Do not let the sun go down on your anger". Their new status as husband and wife brought with it duties and responsibilites. They had made serious promises to love each other, and stick by each other in the bad times as well as the good. There would certainly be times when they would feel, as Jesus warned in

Luke's Gospel "the old was better!" but if they remembered the promises they had made, then God would give them the strength to keep those promises.

Their new home was a symbol of the new life that they would be building together. Pastor Aplin reminded the parents particularly of the words in Genesis of how "a man leaves his father and mother and cleaves to his wife". It was for the couple themselves to choose their lifestyle, and the sort of home that they would build together. Finally the Pastor reminded all the congregation that the relationship between God and mankind is often symbolised by the relationship between God and mankind is often symbolised by the relationship between a husband and wife. As Christians we have a new statument was a new relationship with God, and a new status

as sons and daughters of God. We also have the promise of a new home in Heaven at the end of this life.
Commenting on the number of Christians within GEC Avionics, Pastor Aplin said, "Wherever I go these days I seem to find Christians who happen to work at GAV, or I find colleagues at work who happen to be Christians. All of us want to show our love to God by the way we behave at work, and by being godd neighbours to our colleagues, as well as by the way that we support our own Churches. In the light of recent, well-publicised comments by the local clergy, I am sure many at GAV will be reassured to know of the number of Christians at their workplace, who are happy to fulfil the role of peacemakers through their contribution to the spiritual and material well-being of the nation".

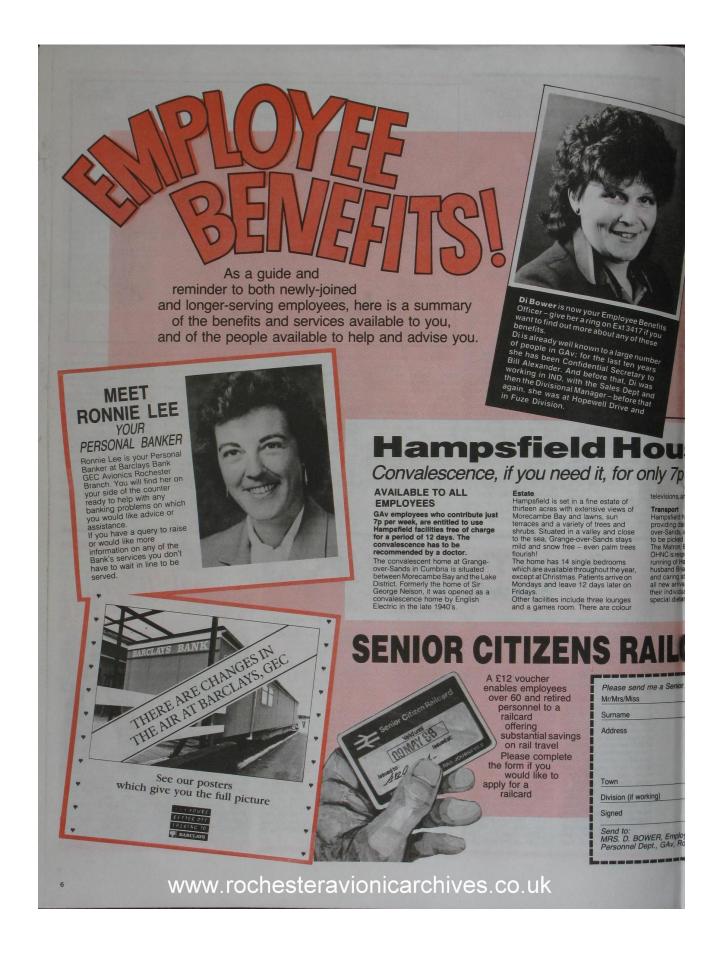




Nurse Ann Garner is seen here with Surgery colleagues, as she was leaving in August to prepare for her baby due in October. Ann has been with the company for nearly years; her husband works elsewhere but Grandfather (of the baby) is Barry Shallcross of MASD.

And as we go to press, news comes of the birth of a son, six weeks early.

(A)

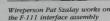




How we make L000 SCAD a year

the SCADC was developed over a four year period, during which four variants of SCADC were subjected to over 40,000 hours ground and flight testing, on more than 30 variants of aircraft operated by the USAF and USN. In June 1985, GEC Avionics was awarded a production contract for 1165 SCADC, to be delivered by November 1987. This order was followed by two subsequent orders increasing the quantity to 3785 and extending deliveries through to September 1989. Following the on-time presentation of the first units to the USAF/USN in June 1986, the ISD Production team have built up the delivery rate to over 30 units/week and a total now over 1100. Under the leadership of Fred Wickham (centre) the team which has been the key to this achievement is (from left to right) Bob Gee, Production Project Manager, Lawrence Mathias, Assistant Production Manager, Elaine Pullen, Secretary, Peter Robbins, Assistant Production Manager and Paul Robson, Chief Production Engineer.





To build up to the production rates required by the USAF and USN to maximize the benefits of SCADC, major emphasis has been on streamlining the production processes. production processes involved. A key element of this has been in the Process Room, where all the SCADC Printed Circuit Boards are assembled and tested, at a sembled and tested, at a rate now well in excess of 1200 boards per month. Even the SCADC program does not fully stretch this facility. The Process Room can now manufacture and test over 2500 cards per month; spare capacity for other projects and more SCADC.





In order to functionally test this quantity of electronic modules, the Division turned to Automatic Test Equipment Division to provide four 'ORION' Automatic Testers. This equipment, configured to ISD's specific requirements, is now fully operational both within ISD and also at GEC Avionics Inc., Atlanta, where any SCADC which fails in the field is returned for field is returned for repair during a three year guarantee period



A lthough major emphasis was placed on advanced production methods within SCADC, interfaces between SCADC and the remainder of the aircraft had to be identical to those weed its designs which is some aircraft nation to the treatment of these used in designs which in some cases dated back to the 1950s. The skills of wiring, which in many cases are declining due to the advent of flexi-circuits in our equipment, are therefore a key elegence in the manufacture of the element in the manufacture of the SCADC used in the F-111 aircraft, the interface assembly of which is shown below



Testing of the complete SCADC units is accomplished using eight manually-operated Test Stations, one of which is shown (below) testing CPU-142/A SCADC for the F-111. Test times for each of the SCADC types vary, but on average each unit receives 12 hours of test on these stations during the manufacturing cycle.



Kris Patel, Tester

once electrical testing is completed, every computer is then subjected to a 120 hour environmental screening test to remove any minor defect that escapes detection in the normal laboratory conditions. A final visual inspection is carried out on every assembly prior to delivery and these tests and inspections give us the best possible start to an anticipated service life of 15 years, and in the case of CPU-141/A over 2000 operating hours in the LISAFE transport fleet before any in the USAF's transport fleet before any maintenance actions are required.



Les Wilson, Inspector

The handover to the USAF/USN of the 1000th SCADC on 9th October marks a significant achievement for the program which has affected ISD in all departments over the last six years. During the past two years, ISD's Production Department has expanded from around 100 people to 240, the extra 140 people being recruited over a 12 month period. Expanding facilities, space, equipment and support staff at that rate has been a major challenge to ISD managers. ISD managers.

WELCOME BACK!

The trainees listed below have now finished training and gained their qualifications, joining divisions on their full-time appointments. Congratulations to

TRAINEE COMPUTER **PROGRAMMERS**

Successfully completed HND Computer Studies at Mid-Kent College and engaged as Software Engineers.

Simon Allen	ADD	Philip Carr	MASD
Andrew Atkinson	ADD	David Gwynne	MASD
Philip Blakeburn	ADD	Mark Patmore	MASD
Karin Clarkson	ADD	Paul Smith	MASD
Alun Goodger	ADD	Meryl Thompson	MASD
Roy Hills	ADD	John Truscott	MASD
Martin Hunt	ADD	Derek Watson	MASD
Peter Sandeman	ADD	Roger Wells	MASD
Christopher Bovis	GSD	Steven Coates	CACD
Alison Cheshire	GSD	Adrian Covel	CACD
Samuel Pierson	GSD	Lynda Rogers	CACD
Gary Twocock	GSD	Richard Curzon	FCD
Andrew Brogan	FARL	Clive Nash	FCD
Gary Chapman	FARL	Trevor Rudge	FCD
John Hall	FARL	Mark Seager	FCD
Peter Jones	FARL	Gary Duckworth	PSD
Stephen Buggs	ISD	Trevor Hunt	PSD
David Humphries	ISD	Steven Tyrrell	PSD
David Poulton	ISD	lan Pestell	ATED
Anthony Royle	ISD	idii i esteli	AILU
Altitionly hoyle	100		

STUDENT TECHNOLOGISTS

completed their Thick or Thin Sandwich Courses with awards of Degrees, and engaged as shown.

COMPANY SPONSORED

Andrew Ashby	Dev Engr	ADD	BSc(Hons)	Electronic Eng University of Kent			
Martin Crewe	Dev Engr	ADD	BSc(Hons)	Elec & Elec Eng Bath University			
Andrew Doorne	Dev Engr	FARL	BSc(Hons)	Elec & Elec Eng Brunel University			
Paul Evans	Dev Engr	CACD	BSc(Hons)	Avionics QMC London			
Andrew Fleet	Dev Engr	ISD	BSc(Hons)				
Geoff Henderson	Dev Engr	ADD	BSc(Hons)				
Trevor Jones	Dev Engr	ADD	BSc(Hons)	Electronic Eng			
John Malthouse	Sys Engr	FARL	BEng(Hons)	ampton University Elec & Elec Eng			
Wayne Moore	Prod Engr	MASD	BSc(Hons)	Bank Polytechnic Prod Eng &			
			Lought	Prod Management corough University			
Robert Pollard	Dev Engr	ADD		Elec & Elec Eng ampton University			
Neil Rattray	Dev Engr	GSD	BSc(Hons)	Elec & Elec Eng QMC London			
Peter Redding	Dev Engr	ADD	BEng South	Elec & Elec Eng Bank Polytechnic			
Graham Sanger	Dev Engr	ADD	BSc(Hons)				
lan Shortland	Prod Engr	ADD	BSc(Hons)	Elec&ManufEng porough University			
Robert South	Dev Engr	ADD	BSc(Hons)				
DIVISIONALLY SPONSORED							
Nick Anderson	Dev Engr	ISD		Elec & Elec Eng			
Tony Boarer	S/ware	ADD	BSc(Hons)	Maths &			

Nick Anderson	Dev Engr	ISD		Elec & Elec Eng	
Tony Boarer	S/ware Engr	ADD	BSc(Hons)	Maths & Computer Studies	
			Southampton University		
Peter Hargreaves	Dev Engr	FARL	BSc(Hons)	Elec & Elec Eng Sussex University	
Ann Lawson	Dev Engr	CACD	BSc(Hons)	Mech Eng Leeds University	
Carl Lewis	S/ware Engr	CACD	BSc(Hons)	Comp Science University of Ken	
Richard Nicholas	S/ware Engr	CACD	BSc(Hons)	Comp Science Imperial College	
Clare Rudman	Sys Engr	GSD	BSc(Hons) South	Maths ampton University	
Kevin Saxton	Dev Engr	AS&RD		Elec & Elec Eng	
James Warriner	S/ware Engr	FARL		Comp Science wcastle University	
Paul Wrightson	S/ware Engr	FARL		Comp Science & Electronics incaster Universit	

We also welcome a number of YTS Trainees to their appointments to GEC Avionics - as a result of their progress with the company while on the

Technical YTS upgraded to **Apprenticeship**

John Barrell Jason Bysouth Andrew Davis Darren Hadlum Christian Jessup Gary Miles Mark Perrin Keith Sandwell Richard Stone David Varrall

Paul Bryant
Trevor Campbell
Lee Ervin
Nigel Haies
Gavin McDonald
Darren Morley
John Ponsford
Jason Stewart
Jason Stringfellow

Matthew Buels
'Steve' Dalgit Cheema
Craig Gladwell
Colin Jervis
Martin Holsten
Richard Payne
Andrew Robertson
Nicola Stickells
Alan Taylor
John Price

Clerical YTS offered employment on completion of YTS

*Helen may be better known as Helen Fleet – she was married on 1 August.

Clerical YTS offered employment (with one year to complete on YTS)

Michael Jury MASD Prod Tracey King GAV Acc Francine Porter Jeanette Cobb AS&RD Eng Lisa Cunningham ADD Eng Andrea Crouch Georgina McNama Catherine Andrea GAV Admin Davina Clark



Prior to joining the Company in 1962, lan Stitt obtained a BSc in Electrical Engineering a Glasgow University. He started at Eliott Brothers, Borehamwood as an Engineer working for the Airborne Computing Division, and later took over the whole of the engineering team on the HS801 Project, later assuming responsi-

Project, ater assuming responsibility for a Bristol Siddeley Project. Ian was promoted to Project Leader, ACD in 1967, then to Project Manager in 1969 and transferred with ACD to Rochester in the same year. His Divisional Manager was Paul Rayner.

He became Chief Engineer of PSD in 1972, with Divisional Manager John Bussell under whom Ian had first worked in ACD. Ian was appointed Technical Manager of PSD in 1978. Ian was appointed Technical Manager of PSD in 1978.

worked in ACD.

Ian was appointed Technical Manager of PSD in 1978
and promoted to Divisional Manager of PSD in 1979.
He is a Member of the Institute of Electrical Engineers.
His presentation was by Ray Reese, Assistant Managing Director, CIS Group.
(A)

John Jones has been Chief Engineer in AS&RD for over ten years, and before that was in the former MACD/FCD divisions. His work on various big projects has taken him on world-wide travel, and journeys within UK and Europe have been made following his great interest in the England Speedway team. Presentation was by Divisional Manager Mike Barton.



Dereck Crouthers, Production Project Controller, ADD, born in Rochester, joined the Aerospace industry in 1940 working with Kent Alloys and was called to the colours in 1944. He spent most of his three service years in what is now Bangladesh, helping out with the complex role the army played in winding down the war effort and events leading to the Indian continent partitioning. He was tempted into the Company in August 1962 and spent the first 9 years solving knotty problems on air data tranducers and other flight instruments. Joining ADD in September 1971, he has now been with the Division for 16 years and has been associated with virtually all production programmes in that time.



Alick Day worked for Lloyds Bank for many years as a bank clerk, then spent 4 years with the RAF and was trained as a Radar Mechanic. He returned to Lloyds in 1948 and later worked for Hardy and Co. as a furnishing

salesman.

He joined Elliott Bros. in 1962 working as a Tester in MAC Division, then transferred to FID in 1963 and later to TAC in 1964. In 1970 Alick joined FCD and was swiftly promoted to T.A. He was further promoted to Development Engineer in 1972 and remained with FCD until 1980 when he switched to CACD. Alick was again promoted to Senior Production Engineer in March 1984 (his current restition).

to Senior Production Engineer in March 1984 (his current position).

Alick has always been involved with the Test Equipment side and has worked on VC-10, Boeing 747, Concorde, WG13, BAC 1-11, Gazelle and Tornado. More recently he has worked on Compact Alpha and was instrumental in the successful introduction of the Marconi System 80.

Alick lives in Gillingham with his wife and has two married sons.

His only known hobbies are sailing and enjoying the English countryside.

Divisional Manager Keith Snelling handed over the canteen of cutlery.



FCD Project Leader Jack Ruler was originally in AEID, but in FCD (Mark I and II) since the late 60s. As well as being much involved in electronics, he has done a lot of Hydraulic and Systems work, and his wide experience has involved flying vehicles of various types, also hoveraft—and parachutes! And Jack's expertise as a sculptor has not gone unnoticed. A great number of friends and colleagues watched Divisional Manager Brian Tucker make the presentation. (B)







Arthur Dennish, just prior to his retirement as Credit Controller in AS&RD, celebrated his 25 years, of which the first seven were spent in TACD where he rose from Estimator to Contracts Manager. Arthur transferred as Contracts Manager to AS&R, on the Civil side, in 1969 and became Credit Controller in 1972.

Mike Barton handed over Arthur's barometer. (A)



Derek Baldwin originally joined FARL and was initially involved in research into thin film circuits and "cordwood" module techniques. Subsequently, early pioneering work on the analysis of maintenance on Civil aircraft equipment introduced him to a long career as an analyst on reliability. This subsequently meant heavy involvement in the ILAAS and A-7 Head-up Display programmes when those contracts came along. This experience was then at a premium and Derek subsequently worked on programmes as diverse as the Jaguar NAVWASS and Nimrod Crew Trainer, and finally in work for the MoD (PE) on GW and Naval Surface Weapons reliability techniques. Since 1980 the rapidly emerging technology of electromagnetic compatibility (EMC) testing presented a new and irresistible challenge with its diverse applications and wide range of problems involving both hardware and software and requiring systems analysis and solutions.

COD Manager Ken Boardman recalled Derek's career milestones while making the presentation of a clock.





Doreen McKenzle
has retired from
ADD Progress Dept.
She has been with
the company for
nine years, having
started with TACD
then moved to ADD
Buving.



In June a team from Rochester descended on Llantwit Major, a village in South Wales, to formally retire John White – ISD Logisitics Manager, Present were John Colston, John Clover and Maureen Scott from GAv and Fred Mackley, Fred Wickham and Roger Fudge from the Division. John shared his surname with many others over

the last twenty plus years but his blend of talents and personality was quite unique. Invited by John Spinks to form a Logistics Group in ISD in the seventies he spread the logistics message far and wide to all parts of the Company, subcontractors and even less-knowledgeable customers. Whilst he spent a short period in Quality Assurance, he will be remembered for creating a professional Logistics team mainly from GEC apprentices.

John had boundless enthusiasm and energy and would often be seen re-writing proposals after the 'youngsters' had gone to bed, and again before they woke up next morning. He led his group and others by example, was a true expert at his trade but always added the extra dimensions of excitement and fun to everything he tack-led. John was also well known for his stories of the desert war, recitals of Kipling and lunchtime bridge.

He was an integral part of three major US programs. CADC for the Lockheed C5A in the 60's. ADS for the Belt/US Army AH-IS Helicopter in the 70's and most recently responsible for all logistics activities on the USAF/USN SCADC program.

At his retirement presentation, goodwill messages were received from Rochester and Nailsea and also from many friends in Lockheed, US Army, US Air Force, US Navy, GAv Atlanta and Dayton.

Our picture shows John organising his own celebration dinner whilst sitting on garden furniture supplied by his colleagues in ISD. We ail miss his presence in the Company and wish John and his wife Sylvia a very well earned and happy retirement.



Peggy Dix's temporary security badge shows the reason for her retirement in July. She had been in WES for allower the respect to the second se almost eleven years, as Cleaner in Tower 2. But she is still seen around, having joined the Temporary Pool for a while. Here, Works a while. Here, Works Engineer Don Freeman hands over a TV and bouquet; there was also a cake and



Ted Campbell, Leading Hand Fitter in ATED, started working life as an apprentice with an engineering company in Strood, which went bankrupt shortly after – the first in Medway to do so. (So say ATED, who aren't telling us if there was any connection. Nor do they comment on the scandalous stories concerning bottles and Ted's time in Scotland where the whisky comes from). After his apprenticeship, Ted joined the RAF and worked as Aircraft Fitter on Sunderlands, and following his first spell with Elliotts MER Division here, he went to Elliotts, Cowdenbeath, whence he returned to Rochester in 1988, to ATED. (They say) Ted then started his semi-retirement, but he will now give more time to his hobbies of carpentry and photography. (B)



Very much a contemporary of Ted Campbell is **Les Terry**, who joined MER Division some 35 years ago, just after Ted. They used to be close neighbours and shared many spare-time interests.

By 1960 Les was charge hand of Fitters in ATED, then situated where GSD machine shop now is – but the heating wasn't so good and they had very little equipment. Thus much "borrowing" was done to keep the SCORE project going. Obviously from the right people, as Les soon became Foreman and by 1967 was Superintendent, the post he held for 20 years till his retirement due to poor health.

Les enjoys his golf, but it is believed he no foncer.

health.

Les enjoys his golf, but it is believed he no longer modifies his clubs and putters to improve his handicap—his wife still used to beat him! And his days as an active political campaigner when he used to tear down the opposition's posters and replace them with his own are also over—probably after the car broke down in the middle of the opposition stronghold.

We wish Les well in his new villa in Spain.

(A)



John Cook of PSD Production retired on Wednesday 5th John Cook of PSD Production retired on Wednesday 5th August. Due to holidays his presentation was made on Friday 7th August when Mick Meakin – Production Manager – wished him, on behalf of his friends and colleagues, a long and happy retirement after 38 years, and handed over a selection of farewell presents from John's friends all to enable his hobby of fishing to be more enjoyable. John started work in a Melton Mowbray shoe factory in 1936, from there he went to Stanton fron Foundry in 1937, Shorts at Rochester in 1939. He was redeployed during war time to General Aircraft Company at Feltham in 1941 and then selected as a 'Bevin Boy' for coal mine work in

1942. In 1946 he joined Swift and Swallow and then went to West Malling Aerodrome on maintenance in 1947. John returned to Elliotts Sheet Metal Division in 1949. Central Machine Shop in 1965 and then joined Powerplant Systems Division in 1980 where he worked as a Production Engineer.

John is seen here being presented with his gifts by Mick Meakin.



Mary Cook retired from MASD due to ill health on 3 July good wish is exte



Social chile

COMputer Users Section

What is COMUS?

What is COMUS?

COMUS is the computer users section of the Social Club, and is a group of home micro enthusiasts. COMUS is based at the club house at Hoo where we have a clubroom equipped with BBC and Sinclair micros, monitors, and peripherals. COMUS is dedicated to promoting improvement and interest in home microcomputing.

What does COMUS do?

What does comes do?

We hold regular meetings reviewing new software and hardware as well as discussions and lectures. Recent meetings have included

"Wordprocessing", "Using Assemblers", "Games"(!), "Making Music", "Upgrading to disk", and "The ROM pag-ing system", to name a few. We also hold informal weekly meetings.

Is COMUS only for BBC Micro users?

Micro users?

In a word, no. However, since most members have these machines, the emphasis has been on "Beebs". Those with other machines are more than welcome to come along to a meeting and talk about them, or even bring them in! We would like to set up Amstrad and Sinclair groups if there is sufficient interest.

What of the future?

We aim to have discussions and demonstrations on "Facilities of the Apple Macintosh", INTERWORD versus WORDWISE PLUS", Desktop Publishing", "Amateur radio bulletin boards", and a DOUBLE PHANTOM tournament, research other things. among other things.

Interested?

Get in touch with Secretary Liz Doe (New Rd 37), Trea-surer Harry Iles (3913) or Chairman Steve Murgan (3994) for further details.

Bisley Week Success

Six members of the GEC Avionics/BP Rifle and Pistol Club attended the Small-bore Rifle Meeting at Bisley for the week 15th August to 23rd August.

A very hot and enjoyable week was had by all. A men-tion must be made of two members who achieved special honours – Mike Babb and Peter Keeling.

and Peter Keeling.

In late July they joined 38 other top shooters at Wolverhampton for trials to select a team of 20 to shoot a Dewar Match, 20 shots at 50 yards and 20 shots at 100 yards, against the Americans. The team was duly selected but due to bad weather the match could not be shot at Wolverhampton and was postponed until

Tuesday 18th August during Bisley Small-bore week.

Bisley Small-bore week.

At 5.30 on Tuesday morning the team assembled and decided conditions were CK. It was damp but calm and the sun hadn't started to cause too many problems. The 100 yards was shot under these good conditions, but after the start of the 50 yards, the breeze came up and conditions the became very tricky. The came up and conditions then became very tricky. The match ended with the team having scored 7891 out of 8000. Mike scored 393 and Peter scored 392 ex 400. Later in the day it was announced that Great Britain had won the match by 1 count.

British Championships for the Earl Roberts Trophy. This is shot in three stages on an elimination basis – best scores go forward. Only 20 shooters take part in the final, out of an entry of around 1600, and consists of a mod-filed Double Dewar, 40 shots at 50 metres and 40 shots at 100 yards. Peter scored 781 for 6th place and Mike scored 779 ex 800 for 11th place.

place.
Mike has shot in the final Mike has shot in the Inal 6 times in the last 7 years and for the last two years has tied for first place but lost in the tie-shoot. Peter has only reached the final once before when he was placed

Sth.
The club would like to con-At the end of the week our duo reached the final of the done, Mike and Peter.

GAV/BP KENT CLUB Swimming Section

Children's Achievements ASA Swimming Skills Award

1 & 2

Distance Awards

Aaron Smith Steven Pethig Kalli Samuels Lucy Davies

Anna Maxey Helen Maxey Ceri Samuels

S.T.A. **Teddy Bear Award**

R.L.S.S. **Aquagold Award**

R.L.S.S. Lifesaving No. 1 Martyn Holt Sarah Moffett

R.L.S.S. Lifesaving No. 2

OCTOBER

Friday 23rd October

with

"FRENCH KISSES"

Saturday 24th October

PARLOUR DERBY **EVENING**

Friday 30th October MUSIC IN THE BAR

with the MUSIC IN THE BAR "BUILDERS"

8 pm

Saturday 31st October OVER 50's

> COCKTAIL DANCE

"HAPPY DAZE"

7.45 - 11.45 pm Bar Closes 11.30 pm

NOVEMBER

Friday 6th November

FCD DISCO "SOUND CITY **ROADSHOW**"

7 30 - 11 00 pm Tickets £1

Saturday 7th November **BARN DANCE**

with

"JEZREELS" 7.45 - 11.45 pm

Friday 13th November **BOWLS SECTION**

DINNER DANCE "SOUNDS

VERSATILE" Tickets £8

Dinner 7.30 pm Dancing until Midnight

Saturday 14th November **BPOILTERMINAL** WINTER DANCE

"PEBBLE MILL"

7.45 - 11.45 pm

R.L.S.S. Rescue Skills

Adam Gilbey No. 1, 2, 3 & 4

The next edition of GAv News will report our Sponsored Swim for the Special Care Baby Unit – All Saints' Hospital, and R.L.S.S. Aquagold Award Presentation.

Contacts: Cyril Moffett (all teaching classes) Dave Jibb (Improvers & Squad Training)

EMPLOYEES' **CHILDRENS** PARTIES

Saturdays

IF NOT -

DO IT NOW!!

GAV/BP KENT CLUB 6th AGM

THURSDAY 18th FEBRUARY 1988 8pm in Ballroom

Members are hereby advised in accordance with Clause 6 of the Constitution

PROPOSALS FOR THE AGENDA TO BE RECEIVED BY 18th NOVEMBER 1987

Crossword No. 86

For amusement only

Across

- 10. A book in the O.T.
- Passing the buck or ball. (4-2-3) 12. A prophetess of doom.
- 13. Italian town in north. (5)
- One with a keen perception. (6) 16. Case for a sword, carrying. (8)
- 18. A footpath or pavement to you. (8) 20. He had a man Friday. (6)
- 23. Parts for players. (5) 24. Small European song-bird. (9)
- 26. As the performer begins one is filled with pleasure.
- 27. A human main stream. (5) 28. Having a tendency to postpone or delay. (12)

Down

- Pleasant spot in dry and thirsty land. (5)
 From which it springs. (7)
- 4. Egg shapes. (6) The occupier of high position ecclesiastically.
 (8)

- 6. Where one can relax and soak it up. (4-3)
- 7. Ah! If only they all came true. (3-6)
- 8. Resilient to sudden change in auto's. (5-8)
 9. When she spied the handsome man it did. (6-3-4)
- 15. Pure and natural. (9) 17. Is it good luck or nuisance? (5-3)
- 19. A riotous festivity with much drinking. (7) 21. A chorus perhaps or again! (7)
- 22. A mooring cable. (6) 25. Informant? or annoyance. (5)

Solution to Crossword No. 85

Across
1. Famous last words; 8. Spot-less; 9. Bowmen; 11. Imps; 12. Fibre glass; 13. Views; 15. Divor-cee; 19. Interval; 20. Brick; 23. Kite flying; 25. Grip; 27. Earwig; 28. Cucumber; 29. Powder

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 solety as a matter of interest.

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