

★ ★ **MOTTO FOR THE MONTH** ★ ★
 "Many receive advice, only the wise profit by it."

£1 Million pilot-less aircraft contract for Marconi Avionics and Flight Refuelling

UK's established RPV team selected for Army's Phoenix programme study

The two United Kingdom companies with over twenty years of successful joint achievement in pilot-less aircraft, have now won a £1 million engineering study contract for the British Army's new Phoenix battlefield surveillance project. After keen competition, the design submitted by Marconi Avionics Limited, Rochester, with Flight Refuelling Limited, Wimborne, as major sub-contractor, is one of the two which have been selected by the Ministry of Defence (Procurement Executive), for further study.

The Phoenix system, for remote targeting and surveillance by day and by night, comprises three main elements; an air vehicle, equipped with advanced avionics and thermal imaging sensors; a mobile ground control station, and a rugged, remotely-deployed ground data terminal. The air vehicle, (of a type which is often referred to as a "remotely-piloted vehicle", or RPV), can operate either autonomously, using its own on-board flight guidance system, or under remote control from the ground, via a two-way radio data link.

The system, which fully meets British Army requirements, as well as those outlined for NATO defence forces, is designed for all-weather operation and can be deployed rapidly in different kinds of terrain.

The two companies' achievements in RPV and their systems, involve the design, production and equipment of many kinds of drone aircraft, specialised RPVs for remote surveillance, highly-stabilised television and thermal imaging surveillance equipment, with fixed and mobile ground stations and real-time data links, and the design and production of mobile radar equipment to British and NATO Army standards.

The Phoenix project is led by Marconi Avionics Flight Controls Division at Rochester, which is responsible for overall design and systems integration, as well as for the air vehicle's automatic flight control and navigation systems. Flight Refuelling Limited of Wimborne, for twenty years a close partner in RPV projects, has responsibility for the complete air

vehicle design and its launch and recovery systems. The day/night remote viewing payload is based on the proven systems of Marconi Avionics Electro-Optical Systems Division, Basildon. It comprises a stabilised infra-red camera and associated microwave data link electronics. The mobile ground station allows the operating crew to perform mission planning, image interpretation and air vehicle navigation tasks in a self-contained protected environment.

The infra-red sensor is an application of the UK Thermal Imaging Common Modules (TICM) equipment, now in full scale production to meet the day/night viewing requirement of all three armed services. This Class 3 thermal imaging sensor (TICM 2) is fully proven as a 24 hour battlefield surveillance equipment, capable of penetrating smoke, haze and camouflage.

The Marconi Avionics proven monopulse tracking radar is being integrated with the air vehicle and ground tracking station by the company's Research Laboratory, Borehamwood, which has long experience in microwave systems design for ground and airborne use.

The air vehicle and associated sub systems are designed for simplicity of deployment and ease of operation and maintenance in the field. The design also permits other defensive payloads to be carried and can keep the system ahead of developments in electronic counter measures as they come about.

Some examples of other RPV programmes carried out by Marconi Avionics Limited and Flight Refuelling Limited are:

- ASAT advanced subsonic aerial target (FRL/MAV)
- MACHAN remotely-piloted vehicle (MAV)
- Sea Vixen drone (FRL/MAV)
- Jindivik drone systems (MAV)
- SUPERVISOR stabilised sensor/data link (MAV)
- HELI TELE surveillance/data link system (MAV)



£25 million order for Britain's Airborne Anti-Submarine System

Marconi Avionics AQS-901 to equip Australian patrol aircraft

A new production order, worth £25 million, has been placed with Marconi Avionics Limited for AQS-901 airborne anti-submarine systems, which are produced by the company's Maritime Aircraft Systems Division, Rochester, England.

The systems, which have already demonstrated their effectiveness in detecting and locating all kinds of submarine, are for equipping a fleet of newly-purchased Lockheed P-3C Orion patrol aircraft of the Royal Australian Air Force. Also included in the order are more systems for Royal Air Force Nimrod maritime patrol aircraft.

The AQS-901 acoustic processing and display system acts on data transmitted to the aircraft by sonobuoys deployed in the water. These detect the noises which occur in the sea, from which the characteristic sounds of submarines can, after very sophisticated signal and data processing, be detected.

AQS-901 is already operating successfully with the RAF and RAAF. The most powerful system of its kind, it is the only one, in squadron service, able to operate with any kind of sonobuoy, including Australia's very advanced BARRA, passive, directional sonobuoy.

The Marconi Avionics Maritime Aircraft Systems Division is the prime contractor for the AQS-901 to the Ministry of Defence (Procurement Executive), which is purchasing the system for the RAF and RAAF. McMichael Limited, Rank Pullen Controls, Computing Devices of Canada and the Marconi Avionics Airborne Display Division, are sub-contractors.

See around the Divisions - MASD

Please Note!

This new big order is for the system which has just won the Queen's Award for Technology for Marconi Avionics Limited.

Marconi Avionics to sponsor the UK National Gliding Championships

Promoting Excellence in Aeronautics, at Lasham Airfield, 23-31 July 1983

Marconi Avionics has agreed to sponsor the National Open Gliding Championships at Lasham Gliding Centre, Lasham Airfield, near Basingstoke, Hants, between Saturday 23 July and Sunday 31 July 1983.

The Board of the Company has taken the sponsorship decision as one new way for the aerospace industry to sponsor excellence in aeronautics, which is to be the theme of the Championships. The British Gliding Association, the governing body of British gliding, wholeheartedly welcomes the company's aims.

Called the Marconi Avionics National Gliding Championships, this event will be the largest gathering of gliders at one site for some 15 years. Eighty top pilots will contest the Open Class Nationals, and the Lasham Regionals, in gliders of all sizes, including the latest and largest competition machines, some reaching 23 metres (75ft) in span. All modern gliders are moulded in glass fibre, some with large inclusions of carbon fibre. The help which Marconi Avionics is giving the Championship naturally encourages the use of new technology, enabling the highest performances to be achieved in this, the country's top gliding competition.

Marconi Avionics will award two trophies, to be competed for in perpetuity, in British Gliding Association competitions for high performance gliders, and will co-operate with the Lasham Gliding Society in the administration of the 1983 Championships. In addition,

the Company will seek to involve other leading figures in the aerospace field in the activities at Lasham.

The Championships will comprise closed-circuit cross country courses, mostly triangular, which, in good conditions, can be over 200 miles long. Races, which start and end at Lasham, frequently result in exciting diving finishes - for pilots and spectators alike - with gliders crossing the Airfield finishing line at speeds up to 150 miles per hour and heights "right down to the daisies".

Based on each day's weather, pilots will be racing round courses set each morning, for points awarded daily. The overall winners will be ranked by their aggregate points over the ten day period.

The daily courses will be made as large as the weather, and the UK land mass, will allow. Such is the development of this sport, that pilots often use computerised instruments to optimise their performances. The largest task so far set at a National Gliding Championship was in 1978, when all but one of a field of 45 pilots completed a 267 mile triangular course, starting and finishing at Dunstable, north of London, and turning Frome and Ludlow.

The first "Nationals" was held in 1947, and 1983 will be the 30th year in which such contests have been held.

The Marconi Avionics National Gliding Championship will be opened at 9.30 am on Saturday 23 July by Her Majesty's Lord Lieutenant for Hampshire, Sir James Scott, Bt.

Notes for non-specialists:

1. Glider performance is measured by the ratio of lift to drag, which is now reaching 50:1 for the largest span machines. This implies that, in still air, a glider at 5,000ft could travel for some 50 miles before touching the ground. When flying at such very shallow angles, pilots cannot see their angle of descent, relying on instruments to tell them how they are progressing.
2. The achievement of optimum lift/drag ratios for all kinds of aircraft has been an important goal in aeronautics, ever since the first heavier-than-air aircraft.
3. Throughout the competition, an army of support crews, power pilots, (all launching is carried out behind powered aircraft), scorers - with the inevitable computer, photographic assessors, meteorologists, caterers and administrators, will work late into each night, to ensure that the show stays in the air.
4. Britain is one of the top gliding nations of the world. The Open Class World Champion is George Lee, a serving RAF officer, who has held the title three times successively, a unique achievement. He will be defending his title again this year, at Hobbs, New Mexico, in June. Lee was National Open Class Champion in 1979 and 1982.

Marconi Avionics News
Editorial Office
Portakabin 4
Airport Works
Rochester, Kent
Tel: 444000 ext. 408
(int. 2731)
Editor: *Ann Griffiths BEM*

Liason Officers:

Lynn Roberts, Atlanta, USA
Gerry Rich, Naasea
Beryl Downie, Accounts
Vic Haywood, AS & RD
Sue Gidding, CAC/CD
Mrs. L. Bull, CMS
Fergus Maloney, FARL (New Road), John Garstin, IN
Rod Cole, MASO, Dave Lucas, ADD, Mrs. J. Linderwood, PSD
Barry Wallington, Asprentice School
Joan Goding, ISD, Ken Castle, Ann Smith, D.H. Pells, ATE
Erik Loft (Calabrioni) and John Brambleby, GYRO
Other are required for CQD, RAS

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



Gillingham Arts Festival

Several Marconi employees took part in this annual event, which is growing in popularity and quality.

Among the prizewinners, in the Art Exhibition was Miss Linda Jones, one time staff photographer, and a member of the Reprographic Department.

Her contribution was a delightful study of Thomas Hardy's Dorset Cottage, and done in oils, thus earning a second prize.

Linda has only been painting for a relatively short while, and studies, part time, at the Green Street Adult Education Centre, Gillingham. Our photo shows both picture and painter.



LOST PROPERTY

The following lost property has been found at the Airport Works, Rochester during the recent past. Enquiries should be made to the Security Department internal ext. 2209.

1. Steel pen knife
2. Gold bracelet
3. Lady's white cardigan
4. Parker ball point pen
5. Gents gold signet ring
6. Lady's engagement ring
7. Black and silver ball point pen
8. Set of darts in case
9. Fighter squadron association brooch
10. Gents digital watch

You have been warned!

To be read at leisure

Supply of electricity act 1975

Inbalance of negative "ions" test

Notice is hereby given, under Common Market regulations (section 327, sub-section 132.) controlling the Supply of Electricity, of tests being undertaken in this area. These tests are to establish the exact inbalance of negative "ions" in your home.

Please note: Negative "ions" are HARMLESS. Negative "ions" are created when European Electricity, which is supplied via the new sub channel cable during peak periods, is used in British electrical appliances.

Although harmless, an inbalance of "ions", (negative or positive) may cause some side effects. These may be; headaches, tiredness, loss of appetite, constipation, reduced sexual drive, boils or wind. If you have experienced any of these in the past three months, there is a possibility of "ions" inbalance in your home.

To reduce this inbalance follow the "ion" decontamination procedure.

1. Avoid nylon. This and other man-made fibres attract "ions".
2. Remove nylon under-clothing (including socks and tights).
3. Spread newspaper over carpets. (Most modern carpets are made from nylon). The "ion" build-up will disperse in about half an hour if this advice is followed.

You are required personally to make this "ion" test. Under the Supply of Electricity Act 1975, YOU ARE REQUIRED BY LAW TO MAKE THIS TEST (see clause 7, Electricity Supply Agreement).

Instructions for test:

1. Wave "ion" lopus test paper several times in the centre of the room. (This is the coloured piece of paper enclosed).
2. Place test paper on front door step (weigh down with brick or other heavy object) or secure to front door.

The "ion" lopus test paper will be picked up by our collector tomorrow morning.

Thank you for your co-operation.

Yours faithfully,

Miss A.O. PILLFOR,

Secretary for the Chairman, Electricity Research Department.

Congratulations

Births

To **Nigel and Karen Wright**; the gift of a daughter — Katherine Michelle — on 31st March 1983, at 7lbs 8oz. Nigel is a computer programmer in FCD.

Marriages

Miss Janet Fone of AS & RD was married to **Raymond Marshall** on 2 April 1983 at St. Peters Church, Boughton Monchelsea near Maidstone.

Janet has been with the Division as a Technical Librarian for 5½ years, and her colleagues and friends contributed for various gifts, which were handed over to her.

Linda Hoskins of CMS Cost and Budget office was married to **Paul Croucher** of ISD on 16th April 1983, at St. Justus Church, Rochester.

The members of both divisions showered them with best wishes for a long and happy life together.

Peter Jones a Senior Programmer on NATS II project ATE married **Sue Dwyer** a programmer on Compact Alpha also in ATE, at the Church of Our Lady Immaculate, Tolworth, Surbiton, Surrey on 19th March 1983.

The division personnel extend their best wishes to the couple for a long and happy partnership.

LIFE CAN BE CRUEL

A friend of mine tucked up her three year old daughter in bed, explaining that daddy was entertaining some business colleagues that night in the dining room, and that whatever happened, he must not be disturbed or mummy would be very cross, for it was an important dinner.

At about 10 o'clock, when everyone was sitting comfortably with their coffee, brandies and cigars, the dining room door opened slowly, creating a silence from the buzz of voices and occasional laughter, and there stood the little girl, absolutely wet through, clutching a bedraggled teddy in her hand, dripping water on the Persian Carpet, and with tears in her eyes and trembling bottom lip she looked at each gentleman in turn and speaking softly said—
"Which of you men lifted the seat?"

Contributed MR

An appreciation of the "Landscaping"

*In grass verges round the airfield
Are the welcome signs of spring
There are crocuses and daffodils
And little birdies sing.*

*Oh they look so bright and cheerful
Bidding summer to make haste
Midst their usual surroundings
Plastic bags and paper waste.*

Musings of a Guard Outside Buck House

The day was very warm and sunny and as Harold looked towards the sky, he noticed there was not a cloud to be seen. Judging from the position of the sun, he roughly worked out the amount of time left that he would have to stand as still as possible, for Harold was on guard duty outside the palace.

It was not a pleasant duty and he never did like the idea of just looking straight ahead, not flinching, not moving a muscle.

There were times when it became very difficult for him, especially with the amount of people around him, people from all over the world. They would attempt to get as close to him as possible and then the cameras would begin, click, click, whir, whir, although most times were accidental, he would be nudged and even kicked, but he had to stay very still no matter what happened, or his commander would certainly have something to say to him.

Harold chuckled very deeply to himself as he remembered one occasion, a young man came up to his side trying to get as close to him as possible, how many snaps he took of him was uncountable and Harold felt his anger increasing as the seconds ticked by. So he moved his right foot just a fraction and brought it down on the young man's toes. How he hopped about in pain, for a moment, the multitude of people ceased their chatter and photography and stared in amazement and some even laughed at the young man's antics and cries of woe, but for the rest of his time on guard duty, no more tourists came near him, he thought that the message must certainly have got around which pleased him immensely.

"What a lovely day that was!" he mused to himself. "After all, how would they like it having to stand as still as a statue, with mums and dads standing either side of them, kids pulling and poking at them, grannies cooing in their ears."

He glanced down without moving his head to see a little boy wipe his sticky hands down his left leg. "Here we go again!" he thought. "I wish it was raining, at least that keeps the people away."

Harold did not mind the rain except for the fact that it made him feel very uncomfortable. It started down his neck, then slowly trickled down his back and chest, but the worst part was when it reached his legs then down to his feet, he shuddered at the thought of having to keep perfectly still, not being able to move to give himself a little comfort.

Harold was brought back to reality by the sudden sound of activity behind him, he knew that his term of guard duty was over, but even so he stood still as a rock, not even moving his eyes. In front of him, he saw the tourists move out of the way, for some reason, they all liked this part the best, the changing of the guards.

He waited patiently for the words of command that would finally come and release him from his stillness. When they did, he moved as smartly as he could, but felt a little stiffness as he did so. The words of command were really a ritual, for he knew the movements off by heart.

"Thank goodness" thought Harold, "at last, now I can get back to my stall, have my saddle removed, a nice cold drink and nose bag of oats."

M. Judge

A lament to a horse-loving mum-to-be, **Sue Holliday**, who is shortly to abandon lifelong friends and incredible colleagues on the 4th floor for the dubious pleasures of hearth and home (and stables?)

*Oh Sue, dear Sue, do you have to go?
Can't you stay just a little bit longer?
Just for an easy-leensy while
Until Phil Davis is stronger?*

*Well! This is quite unfair of you,
Please stop your mucking about,
(I'm sorry, I'll rephrase that word,
It should have been "mucking out",
(That's an 'In' joke, folks!)*

*Just because you're in the club,
And your family miss you so,
(And Mike, we can't forget about him),
Doesn't mean you have to go.*

*Who'll brighten our days with mynrd tales
Of life and wedded bliss?
How could you drag yourself away!
Can you bear to leave all this?*

*You know the VDU will cry,
The typewriter print a curse,
The telephone will refuse to ring,
And the files take a turn for the worse!*

*Well, if you feel you have to go,
Remember to come back and visit.
And if you want a farewell gift,
We're broke, so Sue, THIS IS IT!*

With very best wishes from all on the 4th floor.

Sue Holliday, was Secretary to Phil Davis, John Lewis and Dave Reeves of MAV management team.



CASTAWAY



We went across the waters to the 'colonies' for this issue's Castaway. She is Jean Coryell, a Senior Buyer for Marconi Avionics Inc. in Atlanta, Georgia. Jean has been with MAV Inc. for 4½ years. Her hobbies include collecting old books, writing poetry, and caring for her animals — currently three dogs, a cat and a bird.

MUSIC
Jean's taste in music is quite varied:
Country/Western — Hank Williams, Jr. — Family Tradition
Jazz — Herbie Mann — Mellow
Popular — John Lennon — Imagine, and anything by Toto and Neil Diamond
Classical — Handel's Messiah

BOOKS
101 Famous Poems — Compiled by Roy J. Cook — A volume that enriches, ennobles, and encourages.
Living, loving & learning — by Leo Bucagalia, Ph.D. — A delightful collection of informative and amusing lectures.
Lago — by John Lee — A classic World War II thriller.
Rebecca — by Daphne du Maurier — A favourite, superb novel.

Congratulations

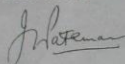
A QUEEN'S AWARD DOUBLE HONOUR FOR MARCONI AVIONICS LIMITED

Expert and Technology 'Double' for the second time in our history

It has been announced that Marconi Avionics has won the Queen's Award for Export, by virtue of an 80% increase in our share of the world market for aviation electronics over the past five years, and that the Queen's Award for Technology has also been won for the company by the Maritime Aircraft Systems Division.

These bring to nine the total of Queen's Awards we have won, six of which have been for Export. These achievements are only made possible by the skill, imagination and dedication of our whole team in all its locations. Whatever our personal role may be and whatever the product or service of our Division or Department, we can all take pride in this outstanding achievement.

Well done!



J E Pateman
Managing Director
21 April 1983



For a second time, Marconi Avionics Limited has won two Queen's Awards to Industry at the same time: for Export and Technology. The Company, has establishments at Rochester, Borehamwood and Basildon, with additional factories at Nailsea, Milton Keynes, Welwyn Garden City, Radlett, Peterborough and Byfleet.

Of the nine awards now won, (six for export), a 'double' was last achieved in 1970. This year's Technology Award is for a family of airborne systems, for processing underwater acoustics data, developed by the Company's Maritime Aircraft Systems Division at Rochester.

A boost to morale, for all who work for the Company.

NCS1 — The Not So Humble Compass

Modern weapon systems on ships require very accurate stabilisation to compensate for the ships pitch and roll if they are to be used effectively. This is very expensive to provide and up to the 1970's ship's weapons were individually stabilised by dedicated vertical reference systems, thus ships had as many expensive stabilisation systems as weapon systems, not necessarily all of the same type. The consequent problems associated with the logistics of training, maintenance and spares gave rise to the requirement for some form of centralised reference system. From this requirement Inertial Navigation Division developed the Naval Compass Stabiliser, or

NCS1, to Royal Navy specifications. The NCS1 is now the standard fit on Royal Navy ships and submarines and is also afloat with the fast patrol boats of the Royal Brunei Malay Regiment and the Egyptian Navy.

The photograph shows a few of those associated with the development and production of the NCS1 which performed so well in the Falklands Conflict. There are many others who could not be included because of space considerations or were not available. Congratulations to them all for a job well done.



www.rochesteravionicarchives.co.uk

Marconi Avionics and Honeywell sign agreement on laser navigation

Honeywell's very advanced Laser Inertial Navigation System (LINS), which it is supplying for the latest Boeing airliners, is now to be incorporated in military systems offered by Marconi Avionics. Honeywell Inc, Minneapolis, and Marconi Avionics Limited, Rochester, England, have signed a sales and distribution agreement, which includes an option for a later manufacturing license for the LINS equipment. This agreement gives the British Company exclusive rights to supply military LINS for applications in the United Kingdom, and for applications as a component of military aircraft avionics systems for export to other countries, outside the UK and USA.

The Honeywell Ring Laser Gyro, on which LINS is based, is the most advanced sensor of its kind in the world, and in its first operational applications has demonstrated, since mid 1982, outstanding accuracy and reliability on Boeing 757 and 767 jetliners, on which it is the sensor for the inertial reference system.

The Honeywell H421 and H423 military systems, which are covered by the agreement, are being offered for the new Anglo-American derivatives of the Harrier VTOL aircraft, the AV-8B and RAF GR-5, and as a standard inertial navigation system for the United States Air Force.

Inertial navigation systems compute aircraft position from measurements of aircraft rotation which are conventionally made by sets of complex spinning wheel gyroscopes and gimbals. Such mechanisms are rendered obsolete by the Laser Gyro, in which angular motion is measured electronically from changes in frequency of laser light. It is the successful exploitation of this principle, in the LINS which has already led to significant advances in reliability in service.

The LINS technology, and the successful service record of the Honeywell design, are regarded by Marconi Avionics as essential qualities for the integrated avionics systems which are to be offered for all new military aircraft and for up-dating those types which are already in service.

This standard of advanced technology matches that of the new wide-angle head up display systems, now being produced by Marconi Avionics, and the latest holographic displays under development for the United States Air Force.

Flying Training Scheme

Another successful period of the company flying training scheme has been concluded, and a social evening was arranged and held on April 8th at the Featherby Road Clubhouse.

After the screening of the film — 'Operation Longbow' the presentation of:-

(1) The Houston Cup (given to the PPL who has undertaken the most noteworthy flight, or series of flights during the preceding year, after taking experience into account.)

Eric Gilroy was adjudged the winner for 1982/3. An engineer in MASD who although only clocking up a total of 60 hours, he had completed flights to the Channel Islands and Ostend.

(2) The Headcorn Flying Cup (awarded to the Student who achieves the best rate of progress in his first year in the scheme.)

This award went to **Martin Poltowicz**, also of MASD.

Also recorded were 'runners-up' for each trophy:-

(1) Houston

Mike Tooze. He has built and test flown his own aircraft and was the original winner of the trophy.

Geoff Wilson. He made a flight to Mid-France.

(2) Headcorn

Nick Milas of FARL

Nigel Pickett of CACD

After further films, 'Titans — 1930-34' and 'Transition to Helicopters', the evening closed in a convivial manner.

Appointment

We take pleasure in announcing the appointment of Mr. B.G.S. Tucker as Technical Manager of the Flight Controls Division with effect from the 4th April 1983.

OUR WORK IS APPRECIATED!

The letter below was recently received by IN Division, and shows that good design and good workmanship pay off.

Dear Mr Garstin,

Thank you for your letter of 12 January 1983, in which you requested information on the performance of the Marconi Naval Compass Stabiliser (NCS1) during the Falklands operation.

I understand that of the ships in the Task Force deployed during Operation CORPORATE, 6 carried NCS1 equipment giving a total of 10 equipments allowing for some dual fits. I am informed that only 2 minor operational defects were reported concerning this equipment, both of which involved the known problem of an over-sensitive alarm, and which were dealt with by the provision of a modification to the Ships Compass Transmission System Alarm Relay Panel. Investigations following the Falklands operation have revealed that there were no problems with this compass equipment and that the equipments performed satisfactorily throughout the operation. I hope this reply will be of some assistance.

Rochester firm's Anglo-American aid to road safety

Marconi Avionics Limited supplies, and Northrop Corporation presents a Sheriff's car for children's road training

At a ceremony at Airport Works, Rochester, England, Marconi Avionics Limited entertained the leading local figures in road safety, and local schoolchildren, in an event aimed at encouraging young people in road safety training.

Highlight of the event was the handing over of a genuinely-appointed US Sheriff's car to Special Deputy Sheriff Jimmy Hodge and his partner John Devlin. They will use the car to visit schools and other public places, to teach young people about road safety. About 1,000 children per month will benefit from the scheme.

Marconi Avionics, as Britain's leading supplier of aviation electronics, has many dealings with major United States aerospace companies, one of which is joining in the event. The Northrop Corporation, Norwood, Massachusetts, which has worked in conjunction with the British Company for many years, in the field of precision gyroscopes, has engineers temporarily residing in Rochester, England, to help establish a new facility here for the licensed manufacture of the Northrop GI-G6 gyroscope. This is a highly successful instrument for which Marconi Avionics has already won multi-million pound orders.

Marconi Avionics is providing the car, a 1977 4.3 litre Oldsmobile, having carefully prepared it for its new role. Medway Electronics has installed the advanced radio equipment which is supplied by another local company, Radio Call.

Mr. Dick Wheate of Northrop made the formal hand-over by presenting the keys to Jimmy Hodge. Jimmy is News Editor of the Chatham Rochester & Gillingham News. His partner, John Devlin, is a carpenter and joiner.

The hand-over ceremony was attended by the Kent County Council Road Safety Officer, Wing Commander Alan Owen, and Chairman of the County Road Safety Member Group, Mrs. Kathleen Turgoose, together with representatives of the Kent County Police and Rochester Police, who are actively involved with road safety.

Mr. Fred Ovey, Deputy Headmaster of Horsted Junior School and six of his pupils also attended to witness Jimmy's road safety routine.

Before we entrust Dick to the tender mercies of the Sheriff, let me mention the remaining participants: Mr. Stanley, Managing Director Medway Electronics, who has fitted the radio and other electrical equipment to the car, and David Whitehead, Managing Director of Radio Call and Mrs. Whitehead. Their company has provided the very sophisticated radio system, which I am sure Jimmy will tell you more about. As for our part, Marconi Avionics is supplying the car, which you see before you. It has been obtained, and prepared for this event, by Ron Cooke, our Transport Manager, and his team, who will also garage it and ensure that it has the proper maintenance. As Jimmy himself put it, "it's not quite the sort of car you can easily park in your drive—at least most of us can't."

It was during a get-together here with the News Editors of the local media that Jimmy mentioned his road safety activities and the need for a car to replace the worn out one he had been using. We decided to step in and help. In making this hand-over publicly, we are acceding to Jimmy's wish to boost public awareness of road safety and to protect our children from the dangers of road traffic.

When I remind you that, in this Establishment, Marconi Avionics consists of over five and a half thousand people, the majority of whom are parents, you will appreciate that we needed little persuading. In this regard, I am very pleased to welcome our friends representing our local media, for giving up their time to join with us in publicising this good cause.

It is my earnest hope that, after the fun we shall enjoy today, the hand-over ceremony, road safety demonstration, American-style luncheon and the good fellowship, we will all think a little more seriously about our obligations to the next generation — to protect them and to equip them better to protect themselves.

Welcoming Statement

W.H. Alexander OBE
Assistant Managing Director Marconi Avionics Limited

On behalf of Marconi Avionics Limited, I welcome you all to today's hand-over ceremony, which I hope will make a contribution, in its own special way, to the excellent work of road safety promotion which is taking place in our County every day. Before discussing today's events, therefore, I would like to say how grateful we are to the Kent County Road Safety Officer, Wing Commander Alan Owen, his colleague, Mr. Graham Shaw, and to the Chairman of the County Road Safety Member Group, Mrs. Kathleen Turgoose, for attending. I am also grateful to the Kent County Police, from which Sergeant Rouse the County Road Safety Officer and Sergeant Elvey, his counterpart at Rochester, are present today.

We are certainly engaged in an unusual event by any standards: the hand-over of an American Sheriff's car to the Rochester personality, Jimmy Hodge, and his partner, John Devlin. Jimmy, as all of you will know, is News Editor of the Chatham Rochester & Gillingham News and shares, with his partner, a keen interest in living the part of Special Deputy Sheriff of Fulton County Indiana in whose city of Rochester he was appointed. It is in this role that Jimmy and John visit schools and public events to encourage young people in road safety training. They do it light-heartedly, as appeals to children, but the end result is a greater knowledge and awareness of the dangers of the road and the steps needed to avoid them, and that is surely a most laudable end indeed.

I am, therefore, very pleased to welcome one of our company's close neighbours, the Horsted County Primary Junior School, Mr. Ovey and six of his pupils. I hope you will find your time with us both enjoyable and rewarding.

As most of you will know, our own company is very proud of its dealings with the United States and it is usual for us, when inviting people here, to involve them in things to do with our internationally-recognised business. Today is something entirely different but I am no less delighted to welcome some of our friends from the Northrop Corporation who are joining in the spirit of the occasion, Dick and Betty Wheate, Ken Millo and Tom Spaulding. With the generous nature, characteristic of their country, they have volunteered to take part and, indeed, Dick Wheate has agreed to make the hand-over ceremony for us.

The Northrop team is over here working with us in establishing new production here for the future which is why they are able to take part. It may interest you to know that a large number of our American customers, large and small, had expressed the wish to take part had the event coincided with their being in England. This is why Northrop is acting as the All-American team today.

On a more serious note, you may wish to know that the American Embassy has given us a special dispensation to show the national flag, in conjunction with the Union flag today and send their good wishes to those present. Anyone who knows the care with which the United States flag is used, will appreciate how great an honour this is.



Mr. W.H. Alexander, OBE, Assistant Managing Director of Marconi Avionics, Rochester, outlining the purpose and the gift.



This is the work we do and the certificate the children earn.



Mr. W.H. Alexander, OBE, presenting a framed copy of the Rights, Wrongs Citation to Mr. and Mrs. Wheate.

Your Rights

You have the right to remain silent
— it's nicer talking to Betty anyway

But anything you say may be taken down
and used in Court
— and it's no use appealing to the House of Lords

You have the right to stop at any point and
ask for a lawyer
— do that, and you'll end your days in Boston, England

Your Wrongs

You have committed a violation by failing to
drive on the Left side of the road. As you should
know, in the US, cars drive on the Right side,
which is to say the Wrong side. In the US, you
have no Right to drive on the Left and over
here driving on the Right is Wrong. Of all
people, gyroscope makers should know Left
from Right and Right from Wrong.

This Citation

This citation is for visiting the sins of your own,
Upon another, (entirely innocent), Nation.
But all can yet be well that ends
Within the company of friends
For who'll amend your violation?
— Marconi Avionics and the Northrop Corporation!

with thanks to William Shakespeare and Oliver Twist!



What have I done to deserve this?

MARCONI AVIONICS

ANGLO-AMERICAN AID TO CHILDREN'S ROAD SAFETY

Marconi Avionics Limited supplies and Northrop Corporation presents a Sheriff's car for use in road safety training

25 March 1983
Airport Works
Rochester Kent
England

FACT SHEET

The Car:
 Make: Oldsmobile Model: Coupe
 Year: 1977 Colour: White
 Engine: 4,300cc Top speed: 180 mph
 Automatic Transmission, power steering, electric sunshine roof

Car Equipment:
 CB Radio (to British specifications)
 Range: 4 miles.
 VHF transceiver 144-146 MHz. Call sign: G4 RRZ. Range: 50-60 miles.
 Radio Telephone: installed by Radio Call. Range: country-wide. Links direct with Post Office telephone system.
 First aid box: fully equipped.
 Roof lamps: Twin red lens (police pattern).
 Siren: Variable warning sounds, with amplifier for speech.
 Co-pilot mirror: for safety in overtaking.
 Insignia: Sheriff's Department Stars with numbers as listed in Fulton County.

Personal Equipment:
 Weapons: .357 Magnum six-shot revolver (correctly licensed).
 Literature: full range of KCC road safety training literature is always carried.

The Men:
 Jimmy Hodge: 50, married, one son. News Editor. Served with Royal Marines for eight years in the Far, Middle and Near East on ships and with 42 Commando in the Suez operation of 1956. Family origin — Canada.
 John Devlin: 45, married, one son. Carpenter and joiner. Served with Royal Marines as a Commando in several fields of operation including the Cyprus troubles.

Both hold signed warrants from Fulton County Sheriff's Department issued by former Sheriff Bob Newgent (in office for eight years until December last) and re-iterated by current Sheriff Richard McLocklin. Uniforms and badges issued through Supplies Department, State of Indiana. Both are members of the Indiana Sheriff's Association.



The Sheriff car in full readiness and all its glory.



On behalf of Marconi Avionics, Mr. R. Wheate of Northrop Corporation, USA, congratulates Jimmy Hodge on the gift, while John Devlin looks on approvingly.



So now, it's all yours! Handing over the keys of the car.



The children from Horsted Primary School (all road safety certificate winners) with their teacher, enjoying the fun.



If only you would release me!

7 crescent way
 Davis Estate
 Chatham
 Kent
 ME5 9SY

Dear Mrs Parnell
 I am very grateful that you invited me along to the dinner on Friday. I would like to thank you because I enjoyed my self very much.
 The gentle man I sat next to explained to me what the size of the engine was in the car, he said it had a CB radio in it and the car would go 180 miles per hour down the hill with the wind behind it.
 The junior Deputy Sheriff explained what power his gun had and what bullets it fired he also said he could draw in just under 25 hundredths of a second.
 Yours sincerely Martin

Dear Mrs Parnell,
 Thank-you very much for inviting me to the party, and to see the sheriff. Their car was really nice with the flashing lights and was delicious. Thank-you again,
 Love
 From
 Julia.

Dear Mrs Parnell
 Thankyou for a great time with my friends and i in marconi Avionics. Especially meeting jimmy hodge and John Devlin And for the food it was delieous
 Thankyou
 yours Sincerely
 Sean buck

7 Binland Grove
 DAVIS EST
 Chatham Kent
 M.E.5.9.U.U.

Dear Sir,
 Thank you very much for inviting me to your function when you prested Jimmy Hodge with the car. I found it very interesting and funny when he read out his rights. Mr Ovey was sad he missed his grub but enjoyed his doggy bag.
 Thank you very much
 from Shenda Arnold

Dear Mrs Parnell
 Thank you for inviting me to Elliotts I enjoyed myself very much
 thanking you
 Rebecca Ridgewell

Horsted County Primary Junior School
 Barbary Avenue
 Davis Estate
 Chatham, Kent
 ME5 9TF

Dear Mr. Moulton,
 Many thanks for the letter and photographs received today. I'm sure the children will appreciate your kind gesture as they appreciated their invitation last Friday.
 I must say that I've never seen children leave a vehicle so quickly and excited as our six did! (With Mrs. Peck in the lead, I might add!!)
 It was very kind of you to have our children and I am pleased they were good ambassadors. Please find enclosed their letters. My thanks also to hottingers Shirley, the typist.
 Yours sincerely,
 Fred Ovey
 Deputy Headmaster

Dear Bill,
 Friday's event was a magnificent affair well but there was little time for me to really express my thanks to you personally for the superb gesture, morale, which tends to sag at times when news of more accidents to children arrives on my desk. To know that a company such as yours cares enough to make such a generous gift spurs me to greater efforts in the spare time that I have to devote to getting the road safety message across.
 I'm not usually lost for words but today I am! I'll save them for the children.
 Again, many, many thanks. Please let them know that if they at any time hold functions or parties for their children and would like John and I to come along then they have only to ask.
 My thanks, too, to Mr. Ron Cooke and his staff for their enthusiasm and help — and the promise that it will continue.
 Sincerely,
 Jimmy

23 Valley Drive,
 Sevenoaks, Kent
 TN13 2EP

Dear Mr Alexander,
 A note to express my appreciation to Marconi Avionics Ltd for their co-operation in promoting the matter of road safety. The presentation and preparation of the Sheriff's car to Mr Hodge and Mr Devlin will be a large contribution to capturing the interest of the Primary School pupils and also at Secondary level. Any work on a Road Safety theme must ultimately help in making young people more aware of the problems involved in becoming better road users, be they pedestrians, cyclists, motor cyclists or eventually drivers. Therefore in my capacity as Chairman of Road Safety for Kent I thank you most sincerely for the initiative you have taken.
 No letter would be complete without a mention of your most lavish hospitality after the ceremony, it was simply delightful, for one enjoyed it immensely — thank you again
 Yours sincerely
 Kathy Turgoose
 (County Councillor for the Sevenoaks No. 2 Electoral Division)

Dear Mr. Alexander,
 I am writing to thank you for the myself excellent hospitality extended to myself and Mr. Shaw by your Company and staff and Mr. J. Devlin, last Friday.
 I can appreciate how much planning and hard work went in to making the occasion such a success and I have no doubt that your Company's fine gesture will make a very valuable contribution to Road Safety Training for young children in the future.
 Thank you once again,
 Yours sincerely,
 Wing Commander A.J. Owen
 County Road Safety Officer

Dear Mr. Moulton,
 A sincere thank you for sending the (fast asleep?) to the children and myself. We had a lovely afternoon, which we shan't forget in a hurry, and send our grateful thanks to both yourself and Mrs. Gammell for making us feel so "important" and so very welcome.
 Our very best wishes to you all.
 Yours sincerely
 M.M. Peck (Mrs.)

Around the Divisions

FARL, New Road Avenue

Flight Automation Research Laboratory celebrates 21 years of successful operation

FARL has recently had cause to celebrate its 21st year of operation. Since its foundation in July 1961, the Laboratory has played a continuing role in providing Rochester's Product Divisions with the new systems and technology which they can exploit to give them that all important competitive edge.

FARL is justly proud of its track record and especially of those developments which are embodied in equipment now in large scale production. For example:

The Lab was the first in the UK to work on and successfully develop 'strapdown' gyro technology for an Attitude and Heading Reference System for a torpedo. Work on this system started in 1965 and was eventually transferred for the Royal Navy's new Stingray torpedo which was deployed in the recent South Atlantic Campaign.

Since its formation, the Lab has maintained a continuing programme of development in digital computing systems and techniques. Exploitation of this work by the Product Divisions has resulted in a number of major innovations such as the A7 HUD which was the world's first digital head-up display.

Some of FARL's more recent activities are described in the following paragraphs.

MACHAN

MACHAN is an experimental unmanned aircraft which is intended to assist in the development of new airborne payloads and control techniques suited to the role of battlefield surveillance.

Although small, the Laboratory's model shop is also very adaptable and the third aircraft has just been completed there, including assembly, testing and commissioning; the previous two aircraft were built and tested by the Cranfield Institute of Technology.

MACHAN is a propeller driven aircraft powered by an 18 hp two stroke engine of chain-saw ancestry; it is launched by a pneumatic catapult and recovered by parachute.

At take-off, MACHAN weighs about 200 lb and with its all digital flight control system, PCM telecommand, strapdown attitude and heading reference system, surveillance camera and data link, the avionics equipment compares favourably with some of the RAF's front line aircraft!

MACHAN — (L - R) The team who created it, Brian Wortley, Mike Smith, Bob Wollett, Doug Francis, 'Shaffi' and Alan Smith.

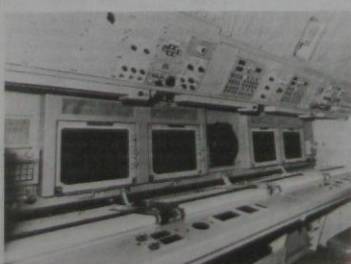


MASD

Maritime Aircraft Systems Division is ten years old this year. It grew out of the then Airborne Computing Division when the Ministry of Defence requested that the AQS-901 contract — at that time the largest single avionics system contract ever awarded in UK — be handled by a dedicated division.

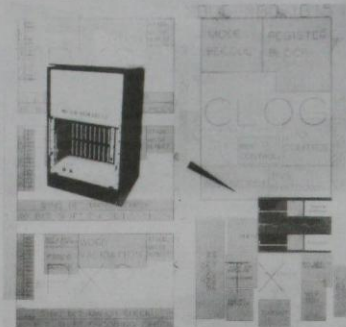
AQS-901 — the letters stand for airborne sonics target detection and localisation system and the numbers show it to be the first British such system — is still the world's most powerful anti-submarine acoustic processor in squadron service and has been standard equipment on the RAF Nimrod MR Mk2 and the RAAF Orion P-3C since 1979.

The function of an anti-submarine acoustic processor is to receive the sounds transmitted to it from underwater, to filter out as much background noise as possible, and then to analyse the sound and present it in visual form to an operator in such a way that sounds known to be emitted by specific vessels can be identified and followed or localised. Despite intense R & D efforts to find a viable alternative to acoustics systems for ASW (Anti-Submarine Warfare), none has



Very Large Scale Integrated Circuit Design (VLSI)

Very Large Scale Integrated Circuits are assuming a growing importance in the Company's products due to their compact size and high reliability. As a result, the Lab is actively involved in the design of VLSI circuits and in the expansion of the Company's VLSI design facilities.



Mil Std 1553B SOS SLS.

As an example, FARL is currently collaborating with the GEC Hirst Research Centre, Wembley, on the production of a two chip VLSI implementation of a data transmission terminal which meets the American TriServices standard, MIL STD 1553B specification for a Time Division Multiplexed serial digital data bus. Initially, a discrete component emulator of the design was produced by the Lab and evaluated by the American design authority, Wright Patterson Air Force Base. Subsequently the VLSI design has been jointly conducted by FARL and HRC using the Hirst radiation-hard silicon-on-sapphire CMOS/SOS process.

Computer simulation has been used extensively in the verification of the chip designs. In future, this type of simulation will replace the discrete component emulator stage altogether and to this end FARL has recently acquired a powerful VAX 11/780 computer.

Fibre Optic Data Transmission

Fibre optic data transmission is a rapidly expanding technology which is very far removed from the attractive fibre optic table lamps familiar to most people. FARL are currently developing a system

which uses a single, very pure silica glass fibre of about 10 thousandths of an inch diameter to transmit up to six video signals at the same time.

This current programme of work is the culmination of a decade of developments in fibre optic technology within the Lab. In 1973, FARL started on the development of a complete set of fibre optic components for military applications which ultimately proved the suitability of fibre optics for avionics and demonstrated the considerable benefits that could be derived, for example Fly-by-Light.

Since this preliminary work, FARL has turned towards implementing fibre optic systems with currently available components. One aspect of this work is to provide a data transmission system for the multitude of video signals that will be present in future, advanced cockpit designs.

It is envisaged that a simple fibre optic distribution system will replace the thirty or more coaxial cables presently required to carry video signals. Furthermore, the fibre optic alternative is very lightweight and immune to electrical interference.

FMS Robots

The increasing worldwide use of automated production techniques has prompted an investigation into Flexible Manufacturing Systems (FMS). In the near future, this work will contribute to the Company's expertise in and application of automated, small batch production techniques.



Robotic Flexible Manufacturing System.

yet been found. There is a constant technological battle between submarine designers and operators — who aim to reduce the noise of submarines to the minimum — and ASW system designers and operators — who aim to extract the maximum information from those sounds which are still emitted.

The sonobuoys from which the underwater sounds are relayed are of two basic types — active, which transmit a signal to bounce off a target and enable the distance of the target from the buoy to be measured, and passive — which work entirely from the sound of the submarine itself. The passive buoys, which are the preferred sensor, since they avoid prewarning the target, create a demand for an enormous amount of signal processing. This applies especially to the Australian BARRA sonobuoy which cannot be processed by any in-service processor except AQS-901.

The most powerful AQS-901 now in service — the RAAF version — has 256,000 18-bit words of core memory and 600,000 bits of display memory. A programme is in hand to add 128,000 words of semi-conductor memory and there is talk of increasing the display memory to 2.4 million bits.

The design and production of AQS-901 involved, besides constant liaison with MOD and RAE, the co-ordination of inputs from four sub-contractors — Rank-Pullin, Computing Devices of Canada, McMichael and our own Airborne Display Division.

The massive capability of the AQS-901 rendered the system unsuitable for the smaller ASW systems which MASD identified as its next sales target, ASW helicopters, with smaller crews and much less room could not carry the system. However, the need for a helicopter passive sonobuoy system to enhance the ASW sensor suite was recognised by MASD and the LAPADS (Lightweight Acoustic Processing and Display System) was developed as a Private Venture. This system — now also known as AQS-902 — won an MCD competition for an acoustics system for the Royal Navy's SeaKing V helicopter and, now in full squadron service, was used in the Falklands conflict.

LAPADS was a radically new design, using distributed rather than centralised processing, and has led to the AQS-902 modular series,



which is being considered for several helicopter and fixed-wing ASW programmes worldwide. The system can be produced with various display media and can process data from different types and numbers of underwater sensors. The Royal Navy's original system has been extended with additional buoy capability and the latest programme is to integrate the SeaKing's dipping sonar and sonobuoy capability with common (MASD) processing and displays.

This new programme has given rise to a joint programme with Plessey Marine for a new lightweight dipping sonar system with sonobuoy options, for which Plessey makes the 'wet' and MASD makes the processor and displays. The system, known as HISOS 1, is attracting much favourable attention.

The theme of common, multi-purpose controls and displays is carried further in the Division's MOSAIC concept in which the

Systems and Computing

The systems and computing side of FARL's work has figure 2 in a number of key projects covering the whole spectrum of software, hardware, expert systems and artificial intelligence.

A few of the major projects include the MIL STD 1750A computer, the application of Expert Systems to an intelligent maintenance system and research into high integrity systems. Additionally, a considerable number of projects have been undertaken for the Product Divisions. These include the A310 Slat and Flap control system study of dissimilar software which was initiated on behalf of FCD to confirm the absence of common failure hazards.

Displays

FARL are currently manufacturing a series of Programmable Raster Display Generators which allow dynamic colour symbology to be overlaid on a television-like display.

A Matrix Display Symbol Generator is also under development which is capable of driving a range of large matrix panels having up to 400 x 300 elements and of producing graphics and alphanumeric formats. Both of these developments represent the culmination of extensive research and show high potential for exploitation by the Product Divisions.



Digital map display.

Work is also being carried out to develop digitally generated colour map displays; the photograph shows the type of map display that can be produced although a black and white picture does not do the map justice. The advantage of such map displays is that they allow map data and scales to be changed very easily.

Optical Design

Over recent years, FARL has built up an extensive optical design facility consisting of a comprehensive software suite backed up by the necessary optical test facilities.

The Optical Design Suite makes use of advanced computer simulation techniques, the heart of which is a ray tracing program for tracing the paths taken by rays of light as they pass through a mathematical representation of an optical system. This allows the performance of optical systems to be analysed in considerable depth.



Wide Angle Simulator HUD.

Current programmes of work include designs for the LANTIRN 'holographic' Head-up Display, Helmet-mounted displays and Night

Vision Goggles. A 'holographic' HUD for an F-16 simulator has recently been designed and built in the Lab and has now been delivered to General Dynamics at Fort Worth.

Direct Voice Input

To help reduce the pilot's workload and increase his effectiveness, FARL has been investigating the use of speech processing technology as a means of commanding and inputting information to the aircraft. As a result of this work, the Lab has produced a design for a powerful and robust direct voice input (DVI) system. Experimental flightworthy prototype units are currently being produced so that a proper flight trials programme can be carried out. The units are speaker (pilot) trained systems which are capable of recognising phrases made up from a vocabulary of two hundred user-defined words.

The essentially 'head-up' operation of a DVI system which naturally complements the HUD in providing a two way communication between the pilot and his avionic systems is shown in the illustration.



Flightworthy Direct Voice Input System.

The aircraft is, however, given the opportunity to answer back; FARL are also exploring an advanced speech synthesis system developed by the Hirst Research Centre which has a great deal of potential for speech feedback from the aircraft control system to the pilot. A unit has been built for evaluation and is currently being used in an intelligibility test exercise at the Aerospace Medical Research Laboratory at the Wright Patterson Air Force Base, Ohio, USA.

Sensors

The high cost of aviation fuel has emphasized the need for better and more accurate methods of measuring aircraft consumption. As a result, FARL have been collaborating with PSD in the research of new fuel gauging sensors that could increase the operating efficiency of both civil and military aircraft.

AS & R

Integration of crew activities in a multiple crew aircraft is achieved by the use of databus transfer of data from station to station. The concept offers highly significant logistic, training, weight, cost and design advantages, besides simplifying the operator/requirement interface.

Further integration activity is directed at the Division's Tactical Processing System (TPS) design and development. The TPS combines sensor and navigation data in a graphic form to permit the most effective use of the aircraft and its capabilities. This system is, in effect, a lightweight version of the Nimrod Central Tactical System which was made in its Mark 1 version by Airborne Computing Division and which has been updated for the Nimrod Mk2 by IND.

The current CTS uses the 920 ATC computer, also made by MASD, which is used for multiple applications, including the Nimrod Mk2 ESM, AQS-901, Nimrod Mk3 navigation system and the MAV Foxhunter radar in the Tornado F2.

MASD's ASW system expertise has been recognised by the Division's selection as the design authority for the acoustics system for the Royal Navy's SeaKing replacement — the new EH101. This system — AQS-903 — is much smaller and lighter than the AQS-901 although its processing power is many times higher. The system is also modular and will undoubtedly form the basis of future MASD ASW systems even for next generation major fixed-wing systems.

MASD has had outstanding success in a field in which there was little British expertise even up to ten years ago. As the UK's — and arguably the world's — best manufacturer of ASW acoustic systems, MASD looks forward confidently to continuing in ASW business as long as there is a submarine threat to our ships, and its ASW systems have good potential for wider export. Equally promising are the Division's plans to exploit its experience in the integration of complex multi-sensor avionics systems in both fixed-wing aircraft and helicopter programmes.

A most welcome acknowledgement of the Division's work is the Queen's Award for Technological Achievement for 1983 which has been awarded to the Company in recognition of the excellence of MASD's acoustic processing systems.

'The other side of the airfield' or 'over the flying school' are two phrases which invariably refer to AS & R Division. Apart from a short spell in the main factory following its formation, the Division has been located on the site since 1963 although some departments such as technical publications and logistic engineering has for some years been resident at New Road Avenue. Following the vacation of Hangar 1 by ATE Division it has been possible for us to expand and locate the whole Division on the one site. This has not been achieved easily as a major re-layout of the division was necessary taking many months to complete. During this time 'business as usual' had to continue and as the Division's business is the day to day support of the Company's products in service with the world's airlines and airforces no degradation of this support service could be allowed.

The Division is very conscious of the fact that equipment not looked after correctly in operational service tends to give the manufacturer of that equipment a reputation for bad product support. This situation, if it existed, would not help the Company's chances of selection in new equipment programmes which invariably these days carry exacting product support requirements.

Unlike other divisions whose products are mainly equipment hardware, AS & R's product is actually the services it employs in the support role. These may be briefly defined as equipment repair and overhaul, supply of spares, logistic support data and planning, on-site service engineering, technical training, post design engineering services and technical publications activities.

In terms of the total business, the equipment repair and the supply of spares together constitute by far the largest element and involve over half of the people in the Division. However, the gradual increase in equipment reliability combined with the current economic pressures on the aircraft operator has led to a slight decrease in the volume of repair and spares sale. But, these same economic pressures viewed against the increased complexity of new equipment have led to a greater demand for logistics studies, training and technical information. Thus the Division has of late devoted further effort to develop its logistics engineering, training and technical publications departments.

There is a continuous requirement for cost of ownership, life cycle costing and spares analysis in the initial stages of new equipment and systems programmes which keeps the logistics department busy. A recent achievement of this department has been in gaining for the division a Nato Codification Agency. The training programme is full and booked ahead for longer than ever before.

Technical Publications tasks continue unabated and the department's reputation for high speed, good quality, last minute proposal work is renowned. This service is considerably helped by the recent installation of the computerised image creation terminal.

As well as providing support for the Company's latest products, the Division is still required to have available facilities to handle the earliest produced equipment. The size of the task can be appreciated by considering some statistics.

The Division handles approximately 4,500 separate contracts and orders in a year from customers in 55 different countries. There is a repair capability for some 2,600 units used on over 70 different types of aircraft throughout the world. A typical monthly repair throughput of 900 equipments is achieved involving over 250 repair orders. Automatic Test Equipment and some 450 special-to-type test sets are utilised. The spares inventory consists of more than 70,000 separate line items which satisfy 2,000 weekly transactions.

To manage its support activities the Division makes wide use of Computer systems as management tools in handling and controlling the large amount of commercial, administrative, statistical and technical data generated. Four main systems cover the spares and repair aspects and these are Initial Provisioning, Inventory Management, Component Tracking and Maintenance and Reliability Systems.

Last but not least the Field Service Department has 41 Service Engineers and Technical Representatives employed throughout the world supporting the Company's products with the customer.

As one of AS & R's ex Divisional Managers once said 'Product Support leads from the back', and that means that if the Division does not look after the Company's products in operational service there is a good chance there will not be any more products to look after.

RETIREMENTS

One of PSD's longest standing members of the Marconi Family retired on Friday March 25th.

Eric Hooker was originally employed by Swift and Swallow in 1940 in Engineering/DO dealing with weighing and vending machines. Swift and Swallow merged with Elliotts and moved to Rochester. In 1956 Eric joined Elliotts as a Design Draughtsman and transferred to Fisher Controls as a Sales Engineer in 1959.

He then returned to Elliotts in 1961 joining ATE as Chief Draughtsman when the division was first formed. In 1964 he transferred to IND as a Design Engineer where he stayed until 1978 before joining PSD as a Design Engineer leading to promotion to Senior Design Engineer in 1979.

On his 'official release' Eric was preparing to move to a cottage at Cottesmore where his time will be taken up with renovation.

On behalf of his friends and colleagues, Mr. I.S.D. Stitt, Divisional Manager, PSD presented Eric with a framed cartoon depicting an old man reclining in a deck chair with the word 'emeritus' — meaning retired from office written on it. He was also given a pair of binoculars, hoping that he will have enough time off from his decorating to be able to watch the birds and planes going overhead from RAF Cottesmore which has figured largely in his work at Marconi Avionics. He has already been warned that he will probably be getting a few uninvited guests when PSD members are working on-site at Cottesmore.



Mr Eric Hooker, PSD (A).

The Company is fortunate in having had among its staff, many colourful and variously experienced people, who in their own way added to the success of growth and expansion, which has been evident during the past two decades. And then we have to say farewell for the tally of years decree that they 'hang up their tools'. When Works Engineering Dept said their adieu to Eric Skentlebury, such a one will be missed, not only for his abilities, experience and adaption, but for the 'bon homie' of a real gentleman.

His story began in West Country, in Devonshire being born the son of a Naval Master at Arms. His education began at Lady Modford School, in the small village of Walkhampton, with his career beginning as an indentured apprentice to a General Builder and Undertaker in the same village. On completion he joined the then small company named Sunleys (which has since grown to a major international construction company) in charge of small contracts.

At the outbreak of World War 2, he volunteered for the Royal Engineers, and served in the Corps for 22 yrs. His experience in those years covered the spectrum of work by the REs: building bridges and blowing them up, laying minefields and clearing them. As a Sapper NCO being involved in the Air Landing Brigade, dealing with gliders and the preparation for their use on D Day. Transfer to India, attached to Royal Indian Engineers, he saw the events on the India/Pakistan partition. Returned home to join the Territorial Army as a Staff Instructor. Then BAOR service, Airfield Construction Squadron, and as RQMS associated with the Suez affair, controlling comings and goings. He tells the story that it was easier to account for a missing Churchill tank than for a dozen buttons — black general service! One just said the tank blew up! Promotion to WO1 RSM and a further term with the Territorial Army, before being demobbed. Joining Elliot Bros in October 1961, on an army pre-release course, he became full time employed in MACD, transferring to FID when the division was formed; and then to Works Engineering in June 1964. He watched the growth and establishment as the major avionics company in Europe. He was overseer of the construction of Tower 3, when it was about half completed. Since then his involvement spanned about 162 relevant projects: covering Corsair Building, Hut 17 toilet and plant room blocks, Portakabin complexes (east and west), Phase 3 building and fitting out, MASD office at Yeovil, initial factory layout for Nalaise and the major company relocations at Rochester of 1969 and 1980.

At the time his retirement came, he became indisposed and his departure officially took place some weeks later, when he received a chiming carriage clock from his WES colleagues and friends which Mr W H Alexander presented to him.



Eric with Mr. Alexander (A)



Eric (2nd L) flanked by Mr. Williams Works Engineer on his right, Mr. G. Thomas General Manager (3rd L) and Mr. Freeman Dep. Wks Engineer (R). (A).

PASTURES NEW

Neil Johnson a Detail Draughtsman in AS & PD, has left the Company to take up a similar position with MOD at Earls Court, London. He joined the Company on 1.9.75 as an Electrical Technician Apprentice, and has been in AS & RD for the past 4 1/2 years.

Colleagues and friends contributed to a number of gifts, which Mr Brian Blakiston presented on their behalf, to wish him every success in the future.

25 YEARS' SERVICE

A recent recipient of recognition for 25 years continuous service is Roy Haigh, of the Central Codification Dept, MAV.

He has had a wide experience of life, which began in West Ham, London, where he was born and educated. In 1941, at the age of 15 he joined the TS Arethusa, then moored at Upnor. After 1 year he entered the Royal Navy as a boy-seaman, and did Russian Convoy Duties 1942-44. From 1944/5 he was with the British Fleet in the Pacific until Japan surrendered. He served on most types of warship in the following period of 'peace'. Of the many jobs undertaken or performed, he enjoyed surveying the coasts of Malaya and Borneo the best.

1956 saw him leaving the Royal Navy, with the rank of Petty Officer (Electrical) and joined Elliott Bros (London) Ltd. His first duties were in Fuel Flow Development, for the then Aviation Division. Then followed several changes; Electrical Testing, in MACD, a Planner in TAC at its formation in 1960. To AS&RD on Planning and Production Control in 1965, and finally in 1969 joined Central Coding, which is part of the Company Standards Section.

Married, he unfortunately lost his spouse in 1961, and has a grown-up family of one daughter and 3 sons. One of his sons, also ex RN, is a Wireman in CACD Model Shop.

A past member of the Rifle Club. His present preoccupation is taking part in running the Kent and East Sussex Railway, as fireman and driver of the locos, and doing the restoration and repairing work.

He chose a carriage clock as the memento, which Mr. G. Arger presented to him.



Roy Haigh with colleagues from the Standards Dept., and Mr. G. Arger (2nd R). (A).

Mr. R. Griffin, (known to his friends and colleagues as Griff), Mechanical Inspector CACD Model Shop, was the son of a fisherman/boatman on the River Sever and went to work in Birmingham at the outbreak of the war.

He joined the Royal Navy in March 1942 took part in the invasion of North Africa. Joined HMS Warspite in 1943, took part in the landings at Pantelleria, Reggio, Catania, Messina, Salerno, D-Day, Brest, Le Harve and Walcheren.

Returned to 'Civvy Street' in 1946 and came to Kent in 1947 where he worked in the Boatyard at Otterham Quay, Rainham.

Towards the end of 1947 the Boatyard closed and Griff moved to the Oil & Cake Mills followed by a stint at the Rainham Sewerage Works.

He then joined Blaw Knox and was trained as a machinist. This was followed by periods of employment at CAV, Elliott, Sharps, Winget and Lee-Grande.

When Lee-Grande left the area, he returned to Elliotts, working on Fishers. He then moved to AEID, onto CMS and then FCD and so on to CACD Model Shop, where he has worked for the last 3 1/2 years. During the last ten years his health has deteriorated resulting in 5 major operations which have caused him much discomfort and pain.

In the latter half of 1982 Griff reached 25 years service with the company but due to his most recent illness he was unable to have his presentation.

By March of this year his health had improved sufficiently for him to be presented with his gift by Mr. R. Reece, Divisional Manager of CAC.



L-R Alan Bye, Mr. C. Reece (Divisional Manager CACD), Mr. R. Griffin and Mr. A. McSweeney. (D).



Mr. R. Griffin receiving his clock in honour of 25 years. (D).

A change of direction

Most of us spend over half our lives at work — it becomes a habit we accept, we don't have to think about how 8 hours a day, Monday to Friday, each week of the year will be filled. And of course there is the money side — we know, barring catastrophes, how much we will be paid each week/each month and what we can and can't afford.

When we think of retirement, and are not approaching it, we tend to see it as a release; at last we'll be able to do just what we want, we won't be tied down by 5 weeks holiday a year and weekends to do all those things we enjoy.

However, as the time approaches, we think more and more about it, perhaps even to dread it — just how can 7 days a week be filled and how are we going to survive on pensions alone? What about all the friends and mates we have at work — who will there be to chat to now?

Fear of retirement is a very real fear. Retirement comes suddenly one Friday night, the following Monday we need not get up when the alarm goes off. If we haven't thought about and planned our time, resources, etc. it can be a great shock to our system and that of our finances.

It's for this reason that MAV runs 'Pre-retirement' courses. Everyone approaching retirement will receive an invitation to attend a series of one day talks, at some point in their final year. Courses usually accommodate about 20 people. Wives and husbands are invited since retirement is a joint venture for those who are married.

The courses are very informal but are designed to give these people time to consider some of the major concerns which face them. Speakers are invited to give ideas, opinions and facts on their specialised subjects. Currently these include:-

- Finance, including tax and pensions
- Health and diet
- Security and safety in the home
- Work and leisure

Time is given after each talk for questions and discussion of these topics.

A good lunch, which usually proves too much for many, gives an opportunity for course members to talk about and exchange their own plans and ideas for retirement.

When you're several months away from the day, you may not want to think about it, but there is a lot to consider, plans to be made which cannot all be left to the last minute.

The next series of courses will be held in the late summer and invitations will be sent out about a month in advance. It's worth considering because even though half our lives may have been spent at work, on average there's still many years left in us when we retire. What matters is that we make good use of those years. Retirement should be, and can be, an exciting challenge for us, as long as we have thought about it in advance — courses such as this one provide that opportunity.

If you would like to know more about these courses, contact Ernie Free in the Training Department on internal 2738 or external 458.

Note! The '65 Club, is for the use of pensioners and their spouses, and meets monthly, for social get together and entertainments and outings to seaside and places of interest. All persons about to retire should contact Personnel Dept. for application forms.

PRIZE QUIZ

Test your knowledge of the current 'cult' of 'Gogging at the Box', and enter this quiz which has been compiled and prepared by one of our fellow workers.

A prize of a £5 TV licence voucher will be awarded to the winner. Answers giving number of question, name and division/dept, or home address should be sent to:

The Editor
M&V News
Portakabin 4
Rochester

Clearly marked QUIZ ENTRY to arrive not later than 27th May 1983.

Entries will be judged by the compiler of the quiz whose decision will be final.

In the event of more than one correct entry, the successful ones will be subject to a 'draw'.

Television Trivia Quiz

by Mark Butler

Part 1: Multiple Choice. Select the correct answer:

- The colour of the first record to appear in the sky on the intro to BBC's 'Top of the Pops' is:
a) Pink b) Green c) Blue
- The world's first high-definition TV broadcast was made in:
a) 1935 b) 1936 c) 1939
- The TV programme which attracted the largest audience in the UK was:
a) The Royal Wedding, 1961 b) Apollo XI mission, 1969
c) The episode of 'Dallas' which revealed JR's would-be assassin.
- The subject of the first TV commercial broadcast in the UK was:
a) Milk b) Baked beans c) Toothpaste
- The executive producer of Texas oil saga 'Dallas' is:
a) John Lorimar b) Philip Capice c) Larry Hagman

Part 2: Name the BBC sitcoms which feature the following leading characters:

- Audrey Forbes-Hamilton
- Norman Stanley Fletcher
- Timothy Lumsden
- Frank Spencer
- Ria Parkinson

Part 3: The following songs each finished second for the UK in the Eurovision Song Contest. Name the performers.

- Congratulations
- Laila Me Be the One
- Rock Bottom
- Are you sure?
- Knock knock, who's there?

NAILSEA NIPPITS

Bangers and

One of the first faces most visitors to Nailsea see is that of Christine Pierce who has been our receptionist from almost the beginning.

Very few of them could know that when Christine joined the Company it was after a long career as a professional drummer. She started playing drums at the age of 16 and was soon good enough to play a summer season with Issy Bonn in Newquay. Later she joined the All Girls Band of Ivy Benson and stayed with Ivy for two years playing winter seasons in Germany and summer seasons backing such stars as Mike Reid, Bernie Clifton and Roy Hudd and meeting such famous 'names' as Buddy Rich and Louis Armstrong.

She has many radio and TV shows to her credit ranging from an American 'Coast to Coast' broadcast when she was 17 to appearing with Alan Whicker of BBC fame. After a career such as this it is surprising that she should give it up to work at a more routine job, but as she says 'I could visualise myself as a little old lady still playing the drums, full of backache'.

After a period of training she joined Marconi Avionics as receptionist and has never regretted it.

She says that she enjoys her work and like the people she works with and feels that she now has the stability that was lacking previously.

She still plays the drums but only as a hobby and if any visitor to Nailsea imagines that the young lady behind the reception desk is playing a familiar tune on the typewriter or telex he could be right.



Mash

From the opening of the new restaurant facility at Nailsea, Catering Manageress, Louise Brutto has built up a reputation for good food service.

With a regular clientele of around a hundred, she combines a mixture of good common fare with the more exotic, such as 'Vicky's

Part 4: With which sport would you associate the following TV commentators:

- Kent Walton
- Adrian Metcalfe
- Dan Maskell
- Nigel Starmer-Smith
- Murray Walker

Part 5: Identify the long-running TV serials which feature the following characters:

- Coco Hernandez
- Dr. Nicholas Toscani
- Marion Willis
- Sir Geoffrey Dillon
- Alton Cooper

Part 6: These TV series were all 'spin-offs' from earlier programmes. Name the originals:

- Thomas & Sarah
- Robin's Nest
- Benson
- Going Straight
- The Fern Street Gang

Part 7: The following five broadcasters are all TV experts. Name their subjects:

- Claire Rayner
- Carl Sagan
- Geoffrey Smith
- David Bellamy
- Delia Smith

Part 8: Name the performers who followed:

- Jackie Ray as presenter of ITV's 'The Golden Shot'.
- William Hartnell as BBC's 'Dr. Who'
- Valerie Singleton as female presenter of BBC's 'Blue Peter'
- Bruce Forsyth as presenter of BBC's 'The Generation Game'
- Diana Rigg as Steed's partner in ITV's 'The Avengers'

Part 9: Name the TV series which feature the following 'Cops':

- Sieve McGarrett
- John Ho
- Pepper Anderson
- Dan Tana
- Maggie Forbes

Part 10: True or False. Answer Yes or No:

- Paul McCartney composed the 'Crossroads' theme.
- The number assigned to 'The Prisoner' in the cult 1960's series was 15.
- The longest running TV programme on British Television is BBC's 'Panorama'.
- Selina Scott was ITN's first female newscaster.
- There are more colour TV licences in the UK than Black & White.

'Toad in the Hole', made to a recipe dating back to the days of King Alfred!

Recent events have included a Dairy Festival and a Bonfire Night Special, but without doubt the most popular event held was the

'French Day' when the canteen was transformed into Montmartre for the day with such delicacies as Escargots de Bourgogne; Salade Jaune; Sauté de Poulet aux Champignons; Saucisson; Pommes Gratinées à la Normande; Gâteaux St. Honoré and Café avec Crème.



Louise is seen attending to the comforts of one of her guests Mark Taylor of the Offshore Projects Group.



Project Leader Dick Chrossman, former Chairman of the Sports and Social Club, arrives in true Gallic style.

ODD ODE

Oh I said goodbye to Charlie
And to Mac and Pete and Joe.
To Jane and Nell I said farewell
It's time for me to go.
Oh Marconi don't you sigh for me
Cos I sha'n't be round on Monday
For I've done my forty three.

Chief Engineer bought me a beer
I had a pint or two
Three pickled eggs, I'd lost my legs
Before I said "Adieu"
Oh Marconi — no more canteen tea
For I've got my leather pension book
Cos I'm now an OAP.

The DM said "as you retire
We hope you won't be bored
For you won't be coming back again"
Then he murmured "Thank the Lord"
Oh Marconi, bye bye PSD
No I sha'n't be round on payday
No more clocking in for me.

The management said "All those years"
Did you say forty three?
They shook their head then frowned and said
"Pray who the hell is he?"
Oh Marconi — work is done for me
Yes I filled in my last time sheet
And from here on I am free.

Now if I should have missed you
Walking round to say good-bye
It's cheerio — I gotta go
And don't you ever cry.
Oh Marconi, here my story ends
I didn't make a lot of dough
But made a lot of friends.

Can anyone help the editor please?

Do you recognise who this might be, and his division?

Details please to the Editor, Portakabin 4

IN LIGHTER VEIN

What's on — the rest of this month, beguiling

17th PSD 'Treasure Hunt', in which pairs of contestants from each department try and locate the other departments and beat the record set last year of eleven days.

By the way, if anyone knows the whereabouts of the two engineers still missing from last year please contact Chief Engineer John Calford.

21st 'Gyro Flitch' where competitors must prove that they haven't had an argument for a year and a day to win a side of ham. Last year was a tie between all 260 divisional members and each received a slice of bacon.

22nd ISD, an evening of poetry and prose, with readings from some of the latest Scads specifications by Maurice Melville and Bill McCutcheon.

24th IND, Pro-celebrity testing for the Eric Skinner Trophy—teams of testers locked in combat over a DVM with the much sought after second prize of a week-end overtime pass.

25th FARL Warlock of the month. It is a well known fact that FARL is composed almost entirely of warlocks (and the odd witch) all members of MENSA, and the winner of the coveted 'Cockpit Prize' goes to the individual or team who win the most outrageous IDO this month.

27th CAC. 'It will be Alright on the Night', hitherto unpublished excerpts from the Applicon cutting room floor presented by Albert Mulford. "I laughed till I dropped" Topic.

28th 'AS & RD Gallery One' — rare chance to see some of Chas Clift's finest illustrations — entry free, souvenir catalogue extra.

30th Flying Scheme — formation flying by the Robin's of number three squadron with choreography by Colin Marshall. (If wet, in the hangars).

31st Works Engineering — 'Pot Green' there are prizes to be won for the nearest guess. How much light green paint can they put on office walls in 24 hours. The event will be supervised by the RAC — the adjudicator's decision is final and no correspondence will be entered into.

31st Social Club — by popular demand — a repeat performance by Miss Joan Hunter Dunn.

You are reminded that the box office is now open for advance booking of the Surgery Glee Club's next presentation — "There's a lot of it about". Intrigue, mystery and suspense for 6 days only. "It is beyond belief" Topic.

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PAUL NIHILL: BRITAIN'S MR WALKING

by Mark Butler, April 1983

Paul Nihill is a Contract Officer in ATE Division. This contribution is by Mark Butler, exclusively for MAV News, who himself is an athlete of note, and a member of Marconi Athletic Club. He is a Programmer within CACD Division.
Photographs by kind permission of Athlete.

It is unlikely that any MAV employee could claim to match the outstanding sporting achievements of Paul Nihill, MBE. Indeed no other British male track athlete has ever competed in four Olympic Games. Paul, an ATE Contract Officer of five years can point to several other major honours. The 1969 European 20km walk; the 1971 European 20km walk bronze medal; 27 UK national race walk titles at distances from 5km to 50km; a British 50km walk record which lasted for 12 years; a British 20km walk record, set in 1972, which was only broken last February.

He won his first international vest in 1963, and a year later netted a surprise Olympic silver in the 50km walk, having entered the Tokyo stadium before the winner had even crossed the finishing line. After three years lost through injury and illness, heat exhaustion forced his retirement from the Olympic 50km walk at Mexico City, having led for over half the distance.

Despite this, and the fact that he was sidelined by jaundice in 1970, Nihill established himself as one of Britain's most prolific, versatile, indomitable and successful competitors in a controversial, yet demanding sport. He took European gold (1969) and bronze (1971) medals over 20km and was placed sixth over the distance in the Munich Olympics. That was followed by another three low-key years but the Montreal games beckoned and Paul made a successful comeback to end his career with a fourth Olympic vest — something only one other British athlete (High Jumper Dorothy Taylor) has ever attained.

Not that Paul at 43, is any less active nowadays. In his spare time he runs a Record Shop in Gillingham and organises Medway's quarterly Record fair. Still "virtually" the same weight he was when he

raced at Tokyo, he has run ten miles in under an hour, and having trained with him for last years Rochester '5' I can testify to his current fitness. Being involved with Britain's first "Quadrathlon" — a gruelling overnight contest of swimming, walking, cycling and running, has refreshed his interest in competitive walking again. I spoke to him about his past and present just five days before he was due to walk competitively for the first time since 1976 — in the 1983 London Marathon.

VINCENT PAUL NIHILL

Born 5th September 1936 at Colchester

Height 1m80 Weight 65kg

Annual Progression at walks:

	20km	50km
1961	1:42:07	—
1962	—	4:51:32
1963	1:32:09	4:26:06
1964	1:31:39	4:11:31
1965	1:33:03	4:26:32
1966	1:33:03	—
1967	—	—
1968	1:31:19	4:18:59
1969	1:28:59	—
1970	1:30:55	—
1971	1:27:34	4:14:05
1972	1:24:50	4:14:09
1973	1:36:51	—
1974	1:30:07	—
1975	1:33:37	—
1976	1:28:59	—

"I was one of those blokes who had to try his hand at everything"

MB Walking wasn't your first choice as a sporting career, was it?

PN No, I was a runner to start with. At a very young age I was a sprinter and then I turned my interest to cross-country running. But my real love was amateur boxing.

MB You couldn't persevere that, could you?

PN I had a knee operation in 1959, which left me with a slight limp, and the doctor suggested I did walking to strengthen the leg. I had earlier in my career played around with race walking, and I thought I'd do some competitions to strengthen my knee. I got better and better at race walking, but whenever I ran I still had this very slight limp. I think in life you do what you're best at so I stayed with the walking.

MB Did you begin race walking at school?

PN No, I was one of those blokes who had to try his hand at everything and in 1956 I saw an advert "Can you walk five miles in an hour?" There was a local race, and if you could walk five miles in an hour, you got a certificate. I thought that would be nice to be able to say I'd done a race walk. I did it in 48 minutes and came second to a man 30 years my senior.

MB When did you realise you could attain international level?

PN I made very rapid strides actually! I started in January 1960 and my times were very bad, but by the end of that year I was, shall we say, an average class club athlete. By the end of '61 I was knocking on the top 10 in Great Britain, and by 1962 I was an international contender.

MB You were runner-up in the Lugans Cup (Race Walking's World Cup) in 1963, and the following year went to the Tokyo Olympics. It must have been a privilege to have been part of the British team in Tokyo.

PN It was great because we had perhaps the best ever British (Athletics) team fielded for the Olympics, and with Tokyo being the other side of the world it was a very glamorous trip. And if you look back now, they were really the last Olympic Games without any trouble. It was very exciting for me.

MB Did you expect to do well?

PN I hoped that if all went well I could be somewhere up there. Obviously I was very delighted with the silver... very delighted. It just doesn't seem 19 years ago.

MB You then had three years of illness and injury — did you think about giving up?

PN I suffer depressions from time to time in my life. I got depressed in '65 and had a breakdown in health that summer. I've had a few breakdowns like that in my athletics career, but I always made a comeback fairly quickly. I think it was Reg Gutteridge who said 'I've made more comebacks than Harry Lauder. Here I am now thinking about another comeback.'

MB Does it take a lot of work to get back?

PN It does. Obviously the older you get, the harder it is to come back, but I wouldn't come back unless I thought I could give a very good showing.



Great Britain v West Germany at Bexley, May 3rd, 1969. Paul Nihill and Peter Fullager (GB), well clear of the field in their fierce fight for the lead in the 20km race. Nihill won in 90 mins 18.4 secs. Fullager second in 90 mins 49 secs.

MB You came back for the Mexico Olympics but failed to finish in the 50km walk. What happened?

PN I had trained very hard for Mexico. I had high hopes of winning. I was going very well out there in training. I'd conquered the altitude, but what beat me on the day was the heat. Although it is hot in Mexico usually, this was one of those abnormally hot days. After contesting the lead for 40km, I just blacked out.

MB Did the experience make you more determined for success in the following year's European Championships?

PN I won't say it did me a favour, but I decided after that to concentrate on shorter distances. And I found I was better than the longer events.

MB You were the winner of the 20km at the European Championships in Athens. It must have been a great feeling to enter the stadium knowing you were the champion.

PN People have always accused me of winning big races and showing no emotion — not looking very pleased or anything. Even when I got the silver in Tokyo people said I looked very miserable at the finish. Basically I contain all my emotion. But when I finished in Athens I gave a victory salute and jumped up and down for joy. In those days, prior to the rise of the Mexican walkers, if you won the European Championships, you were the world's No. 1.

"... you miss being a Champion"

MB It must have been a fillip for the British team in Athens because you won on the first day.

PN Yes, and traditionally, if you win a gold medal early it does boost the team's morale. On that day I was doing the 20km walk and Dick Taylor was doing the 10,000 meter run. He had broken the European record that year and was favourite. I had a private joke with him that I would give a victory salute before he did, even though he was on before me. Of course, he had to drop out in the heat and humidity, and I won — duly performing the victory salute.

MB And Britain won five more golds.

PN Yes, whenever I win anything everyone else seems to as well, like in Tokyo and Athens.

MB Do you miss the adulation?

PN I do, yes, that's why, at the silly age of 43, I would not mind a comeback and do the AAA (3km track walk) championships at Crystal Palace. I miss the travel more than anything because I really love travelling. And you miss being a champion.



The 1971 AAA Championships at Crystal Palace with Paul Nihill (Surrey WC) leading the 3000m walk which he won in 12 min 49 secs.

"It was a big chunk out of your life"

MB How did you manage to stay a world class walker and hold down a job?

PN In those days, walkers were amateur in comparison with a lot of walkers today — not British — who are virtually professional. I worked in a bank in those days and although the work wasn't demanding, it was an eight-hour day, so my training had to be dinner times, early in the morning and evenings. It was a big chunk out of your life. I trained for 2-3 hours a day and had to fit that in with work. On Sundays I'd do a 32 mile walk.

MB Did you feel cheated that in Britain you had to make so many sacrifices?

PN I suppose I did. After Munich, I used to jokingly tell people that I was the last of the amateur World-Class walkers. But when you look back, it's not such a funny statement. World walking is now dominated by Russians, Mexicans, East Germans and other East Europeans who are virtually professional.

"A sport is unglamorous except when a country has a champion"

MB Race walking demands a great deal of skill but the public tend not to take it very seriously, do they?

PN It's a technique event. I suppose it does look funny to some people. There are a lot of events which are unglamorous, you could say the triple jump was, although it's had a recent revival. A sport is unglamorous except when a country has a champion who can hold his own in world terms. Then suddenly the event becomes fashionable.

If I could choose, I'd be a 1500m runner, but I certainly won't grumble. Walking is not an event that's in the public eye and you don't become a household name like a Brendan Foster.

"... any sport, if you are at the top, is tough"

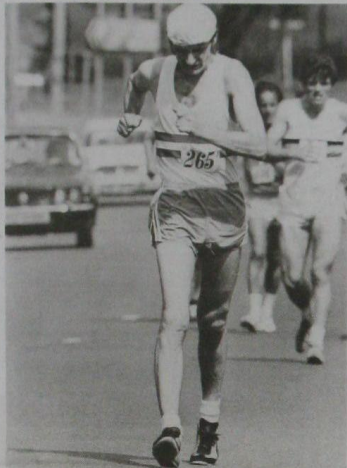
MB Although the Decathlon or Marathon are usually described as the most gruelling events, it's generally forgotten that the 50km walk is the longest.

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PN It is, but I would rate the Decathlon as the toughest event because you have to specialise in ten disciplines. Although walks and marathons are very long, the one great advantage is that you can train at any time anywhere. If you are a Decathlete, you must find yourself a stadium and equipment. With a walker you could go on holiday to Timbuktu but you can still get up early in the morning and go out for a long training walk. Daley Thompson would be lost because he'd have no facilities. But I think any sport, if you are at the top, is tough.

MB Race walking must be one of the few sports where you can talk to your opponents whilst competing. Do you ever try it?

PN I rather when I run. I suppose with walking you're on the road longer and there isn't the oxygen left. A lot of walkers do puff and blow and wouldn't have the breath to speak, but it's never been a problem with me. I got quite well-known for having a natter but you wouldn't do it in a major championship because you'd be concentrating. It's tongue-in-cheek tactics—you can worry your opponents that you're feeling great.



Another study in determination!

"Whether you've a valid excuse or not, it doesn't alter the fact that you didn't win"

MB You were still in the highest world class in the early seventies, placed third in '71 Europeans, but you didn't get amongst the medals in Munich Olympics. Was that a great disappointment?

PN I trained even harder for Munich than I had done for Mexico. Two months prior to the games I'd broken the world record for the

20km walk. I felt I should have won—it was my big chance. I did altitude training before, which I think upset my preparations. It's easy to say afterwards but I believe we came down from altitude too late. I didn't win and that's it. You get one big chance every four years and if you blow it, you blow it! Whether you've a valid excuse or not, it doesn't alter the fact that you didn't win.

MB Munich, with the Israeli team massacre, must have been in stark contrast to Tokyo.

PN Yes, it was very tragic. It not only occurred on the day of rest between my two events, it also occurred on my birthday. I'll always remember it. The Olympics is the greatest show on earth and if someone wants to express their feelings politically, the Olympics is the place to do it—unfortunately. The killing of innocent athletes is dreadful, and it has certainly made a difference to the games since. Now the Olympic villages are virtually prison camps. The security is, understandably, very tight. It's a shame.

MB You retired after Munich but came back four years later to make the Montreal team at the age of 36. How important was that to you?

PN I wanted to be the first male athlete from Britain to do four Olympics. Had somebody else done it already, I don't think I would have gone through with it, because I wasn't very happy with my form. I hadn't really worked hard. I got into the team but it certainly wasn't a vintage me in action. I don't consider my 1976 comeback as a proper comeback, so getting to Montreal was a bonus.

"I would rather be a top-class athlete than a top-class businessman"

MB Since your retirement, have you been able to do all the things which before couldn't be fitted in with training?

PN I've always kept running to stay fit, but I've got other interests. I run a Record shop in Gillingham, and I promote monthly Record fairs. I used to promote Rock n' Roll dances. I'm involved with a handicap club in Croydon of which I'm president. I'm a member of the London Ex-Boxers' Association. I'm very keen on boxing. I keep myself occupied.

MB Is there anything in life you feel you've missed out on because of your walking commitments?

PN If I'm fair about it I suppose I missed qualifying for a better position in my working life, but I don't regret it. I would rather be a top-class athlete than a top-class businessman.

MB How important is it for you to retain your fitness?

PN It might be vain but I think people who keep themselves in physical condition remain young. It's nice to go into a pub and drink with people 10-15 years younger than you knowing you can run 10 or 12 miles and they can't. And I wouldn't like to think that as an Olympic silver medalist and former European Champion, I was going around with a beer belly. It's nice to be fit. I don't say I enjoy going out and running but I suppose there's a little bit of discipline left in me.

MB Tell me about the Quadrathlon. I thought you were taking part in it.

PN A lot of people do. I can't swim, otherwise I'd be tempted. But I'm involved with the organisation and I am responsible for the race walking section. I think it's a great event and I'm very much enjoying being associated with it. It's done me a favour, the fact that I've been training Steve Upton for the race walking. It's got me back to racing and I'm now considering further steps.



Paul Nihill: Britain's Mr. Walking.

MB Another comeback?

PN It would be nice to comeback for one of two major events, but I wouldn't do them if I didn't think I could do well for a man of my age. I'm going to walk the London, Gillingham and Maidstone Marathons and the Rochester Hall Marathon. Depending how they go I'll take a gamble and go for the AAA Championships in the summer.

MB Coincidentally, the very first time I ever visited Crystal Palace was when you last won the AAA 3km walk, in 1975.

PN That's right, that was my last national. I was somewhat fortunate because Roger Mills was disqualified, but in walking, that's all part of the game. If you are deemed to be breaking the rules you get pulled out. It was nice to win it 12 years after my first national. The sprint (track) races appeal to me particularly when I talk about a comeback, because if you race on the track at Crystal Palace in the AAAs you are performing in front of a large audience. Whereas in a road race you compete out 'in the sticks'. Crystal Palace is where the nation watches and I wouldn't want to make a comeback and perform when nobody's watching. I suppose I'm vain enough to want to be where I can be seen.

Postscript: Paul clocked 4hr 2:13 for the London Marathon and then confirmed that he would be entering the AAA Championships—20 years after he first walked in the event.

Sports and social club round up

LONDON MARATHON



L-R: Gavin Caller, Phil Colpitts, Bruce Sargeant, Lloyd Langley and Eric Footsbery. (D)

The grueling test of stamina, in completing the London Marathon, on April 17th, was overcome by several Marconi employees.

From CACD a group of five undertook the training and competing, and are shown in the photograph holding their medals, awarded for completing the course.

In addition 2 Apprentices took part, Andy Silverstone, a 3rd year apprentice, in TDO, and Danny Darny of ATE DO, whose sponsorship was on behalf of "Mencap".

The well known runners, Mo Drury and Jim Beaney, also successfully took part. To these and any others of whom we have not heard, we offer our congratulations, and trust they have had their appetites whetted, and will be prepared to give practical support to many charities by using their prowess in overcoming 26 miles+ and in atrocious weather.

Well done! All of you!

Swimming Section

The gala season has begun. The first this year was on March 31st at home between MAV/BP Social Club, Ashford S/C and Beaver S/C. It was won by Ashford, MAV/BP coming second. The highlight of the match was a new club record for the mens open 100 yards Free Style event made by Gavin Caller of FCD in a time of 52.1 seconds.

The match at Gravesend on April 22nd, between Gravesend & Northfleet S/C, MAV/BP S/C, Rochester City S/C, Whiteoak S/C, Beaver S/C and Birchington S/C, was won by Rochester City S/C and White Oak S/C who came equal first with MAV/BP coming fourth.

Further matches have been arranged as follows:

May 7th	Away 'B' Gala	(Black Lion)
May 12th	Section Gala	(BP) Hoo
May 19th	Home Gala	(Medway Dick Capelling)
June 4th	Away 'B' Gala	(Faversham)
June 16th	Section Gala	Hoo
June 30th	Home Gala	(Bronze & Silver)
July 9th	Away Gala	(Gravesend)

(Section Galas take the form of club championships)

Date	Fixture	Venue
May 18	BRC v AAA v ULAC v RN v TVH v Polytechnic v Kent AAA	Motspur Park
21/22	Kent AAA (S,J,Y,B,C) Championships	Bromley
25	Shaftesbury Harriers Open Meeting	Hendon
26	LBH 5 miles	Battersea
28/29	UK National Championships	Edinburgh
29	GRE Cup, First Round	Hornchurch
	Kent Women's League	Southwark Park
30	Gillingham Marathon	
	Faversham 16 Kilometres	
June 4	Southern League Division 1	Parliament Hill
		Bracknell
	Brooks Canterbury 10 Kilometres	
5	Young Athlete's League	Hoo
11	Kent Schools Championships	Hoo
12	GRE Cup, Second Round	Hendon
17/18	Southern AAA Senior Championships	Hendon
19	Coft's & Boy's League of Kent	Hoo
	Kimberly-Clark Marathon-Maidstone	Maidstone

Sports and social club round up

INDOOR GAMES

MONDAY LEAGUE Final Positions

DARTS					EUCHRE					CRIB										
P	W	L	D	F A Pts	P	W	L	F A Pts	P	W	L	F A Pts								
AS&R	12	10	1	174	46	31	ADD	12	9	3	40	20	40	ADD	12	7	5	35	25	35
BP	12	9	1	278	42	29	CAC	12	7	5	38	22	38	AS&R	12	8	4	34	26	34
FCD	12	6	3	371	49	21	AS&R	12	7	5	35	25	35	CAC/D/O	12	7	5	32	28	32
ADD	12	5	5	288	52	17	FCD	12	6	3	35	25	35	Accounts	12	6	6	32	28	32
CAC	12	2	2	53	47	8	Accounts	12	6	4	32	28	32	BP	12	5	7	24	36	24
Accounts	12	2	9	151	69	7	BP	12	5	7	24	36	24	CAC	12	3	9	24	36	24
CAC/D/O	12	2	9	132	88	7	CAC/D/O	12	0	12	6	54	6							

WEDNESDAY LEAGUE Final Positions

DARTS					EUCHRE					CRIB											
P	W	L	D	F A Pts	P	W	L	F A Pts	P	W	L	F A Pts									
MASD	12	9	1	277	43	29	MAV	14	11	3	45	25	45	MAS	10	9	1	39	11	39	
AS&R	12	7	3	282	38	23	ATE 'A'	14	9	5	41	29	41	MAV	10	6	4	34	16	34	
ATE 'A'	12	7	3	269	51	23	GYRO	14	8	6	40	30	40	ATE Eng.	10	6	4	29	21	29	
GYRO	12	5	7	0	52	68	15	ATE Eng.	14	6	8	34	36	34	AS&R	10	5	5	25	25	25
MAV	12	4	6	2	57	63	14	CGD	14	6	8	33	37	33	CGD	10	2	8	13	37	13
ATE Eng.	12	3	6	3	55	65	12	MASD	14	5	9	31	39	31	GYRO	10	2	8	12	38	12
CGD	12	1	10	1	33	87	4	AS&R	14	6	8	29	41	29							
							Fisher	14	6	8	28	42	28								

COMBINATION

	Points		Legs For	Legs Against	Total Points
	Darts	Euchre			
AS & R	31	34	74	46	100
ADD	17	35	52	52	100
FCD	21	28	71	49	84
BP	29	26	78	42	79
Accounts	7	32	51	69	71
CAC	8	24	53	67	70
CAC/D/O	7	32	6	32	45

COMBINATION

	Points		Legs For	Legs Against	Total Points
	Darts	Euchre			
MAS	29	39	77	43	99
MAV	14	34	45	57	93
AS & R	23	25	29	82	77
ATE Eng.	12	29	34	55	75
MAV	15	12	40	52	68
ATE 'A'	23	0	41	69	64
CGD	4	13	33	33	67
Fisher	0	0	28	0	28

Cricket Section

The officers of the section, would like to express their appreciation for the response to the call for 'COLTS' which appeared in our October/November issue. The Disco on 11th March 1983 raised funds to ensure the 'COLTS' were able to have 'net practise' during the winter months, and a big Thank you is extended to all who supported the event, to give encouragement to the youngsters.

For Season 1983, commencing 23rd April, there will be two teams running under the club banner. 'A' and 'B', corresponding roughly to the former Elliott Club and the BP Club.

Fixture lists for the two sides, for the immediate future are given below.

'A' Team (formerly Elliott Fixtures)

Sat May 21	H v	Blue Bell Hill
Sun May 22	A v	Canterbury Cavaliers
Sat May 28	H v	Woodcombe
Sun May 29	H v	Elgars
Sat June 4	A v	Luton
Sun June 5	H v	Ryansh
Sat June 11	H v	Old Anchorians
Sun June 12	A v	Gillingham B.R.
Sat June 18	A v	Corinthians
Sun June 19	A v	Selling
Sat June 25	H v	Blue House, Marden
Sun June 26	H v	Canterbury Cavaliers

'B' Team (formerly BP)

Sat May 21	A v	Addington
Sun May 22	H v	Frindsbury
Sat May 28	A v	Bearsted
Sun May 29	H v	Orham
Mon May 30	H v	Chatham Suburban
Sat June 4	H v	Old Gravesend
Sun June 5	A v	Yalding
Sat June 11	H v	Gore Court
Sun June 12	H v	Willow Brooke
Sat June 18	H v	Chelsfield Cavaliers
Sun June 19	H v	Rumwood
Sat June 25	H v	Yalding
Sun June 26	H v	Oakwood



The "fitting out" Supper held at Four Wents Clubhouse, Hoo, on 15 April 1983 was a great success. With good food, disco and dancing of a high order, and the ballroom bedecked with brightly coloured sails all helped to get the feeling right. A fine evening, for which the thanks of the members are due to Pauline Beldram, Section Secretary, and Margaret Clarke the Social Secretary, who did not spare themselves to ensure a grand time.

3/4/5th June 1983 is Blackwater week-end. Will Cruiser Skippers please get in touch with Eric Fosbeary (int. phone 2899), and Dinghy sailors to contact Gordon Belcher (int. phone 2732) for details.

A Social Evening is being arranged for June 11th at the section Clubhouse, Colemash Creek (on Medway). Members will be circulated later with full details when finalised.

Five-a-side football

Congratulations to CMS, who, for the second successive year have won the Inter-divisional League. The final match, between AOS and MASD 'B' resulted in a win for AOS with a score 15-1.

This ensured that ISD and MASD 'B' were relegated which means that the subtle skills of Peter Scott, and the occasional appearance of the veteran Peter Baker are lost to the top division.

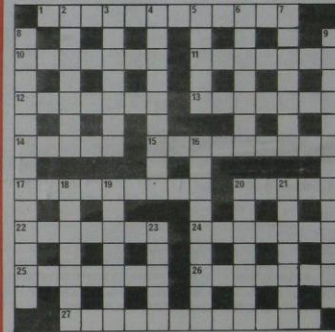
We trust Dave Golding will take heed and not stand in the doorway while games are in progress, as his extended torso blocks out most of the light!

Diary Dates

Four Wents, Hoo St. Werburg

Saturday 14th May, 8-11pm "Copperfield Duo". Tickets from Bar and Door 25p
Saturday 21st May, 7.45-11.45pm Social Evening with "Zoom". Tickets from Bar and at Door 25p
Friday 27th May, 8-11pm Michael Hayes Guitarist. Bar Lounge, Admission Free
Saturday 28th May, 7.45-11.45pm Dance to "City Lights". Tickets 25p from Int. phone 2217 or Bar
Saturday 11th June Parlour Derby Evening. Betting Units 20p each
Friday 17th June, 7-10pm Children's Disco "Tip Top Sounds". Admission 25p. Tickets at Ballroom door
Friday 24th June, 8-11pm "Seven Aces" Jazz Band. Tickets 25p from Int. Phone 2217 or Bar
Saturday 25th June, 8-11pm Michael Hayes Guitarist Bar Lounge. Admission Free
Friday 15th July, 7-10pm Children's Disco "Tip Top Sounds". Admission 25p. Tickets at Ballroom door
Saturday 30th July, 8-11pm "Arthur Brown Trio" Admission 25p. Tickets from Int. Phone 2217 or Bar
Saturday 20th August Parlour Derby Evening. Betting Units 20p each
Saturday 24th September Parlour Derby Evening. Betting Units 20p each

CROSSWORD No. 51



Across

- The bangs which herald the storm (12)
- A cutting tool, hand held (7)
- The player stays with one team, is this man (3-4)
- Up to no good, at night (7)
- Approval for (7)
- The oriental flower, profuse and ours (5)
- Don't let the wind do this to your umbrella (6-3)
- An old fashioned head gear, for rare days (3-6)
- Of stone, in a quarry (5)
- Spicay, without kernel (7)
- The cure all, for malaria? (7)
- A verbal libel (7)
- Woken up from sleep or lethargy (7)
- Taking it easy on a bike, downhill (4-8)

DOWN

- A press release, or circular (4-3)
- Comfortably at rest, snuggling (7)
- Of the 1901-1910 period (9)
- Pungent aromatic dried bud (5)
- Changed or altered (7)
- An Italian town, of beach fame (7)
- Without form or comeliness (13)
- Those not present, with whom to correspond (6-7)
- A tool for the right angle (3-6)
- A full blown amount (3-4)
- A payment in arrears (7)
- Lubricant for crowning glory (4-3)
- Pentecost, not now a holiday (7)
- Scattered in the way (5)

Solution to Crossword No. 50

- ACROSS**
1. Power station; 10. Integer; 11. Empower; 12. Logbook; 13. Diamond; 14. Wendy; 15. Of chance; 17. Australia; 20. Proof; 22. Trooper; 24. Stimuli; 25. Reading; 26. Amok; 27. Heads of state.

DOWN

2. Octagon; 3. Egg cosy; 4. Strike oil; 5. Amend; 6. Inpeach; 7. New moon; 8. Willow pattern; 9. A ridge of hills; 16. Flagstaff; 18. Stomach; 19. Replica; 20. Paid out; 21. Ovum; 23. Regis.

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

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Produced by Phoenix Publicity and Print Limited, Bradford, for Marconi Avionics Limited. Kept and printed by John H. Hirst & Company Limited, Cleckheaton, Yorkshire.