

Echo

The internal newspaper of Marconi Radar Systems and its people

DOING A GOOD JOB IN ASSEMBLY

Who would have thought that a glass blower and an RAC queries clerk, a canteen lady, and a dressmaker would be producing useful assembly work for us less than three months after joining the Company? But they are. And this is the rate of progress being made by most newcomers to assembly who are learning their jobs in the works training department.

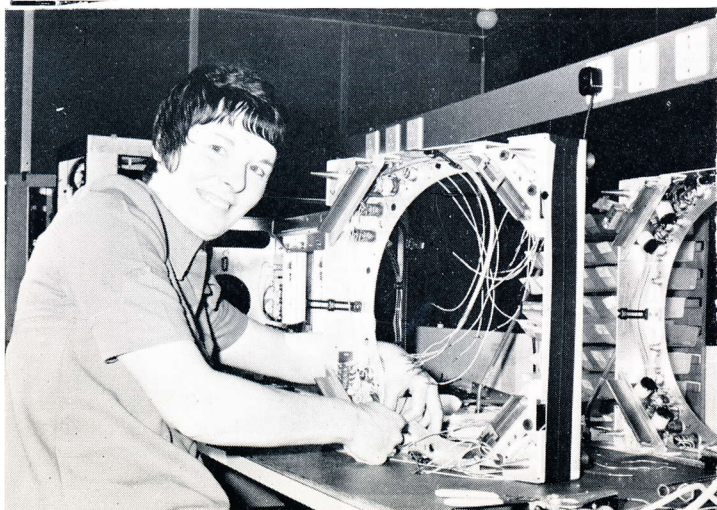
The four ladies in the front line when these pictures were taken, were given four weeks' basic training at New Street when they joined us, and when our new training department was started they continued here with simple wiring and assembly tasks in the care of Instructor Jerry Pettitt. Now the four of them are working under him on radar displays which will be used by air traffic controllers for the safe handling of passenger or service aircraft in busy areas. They have the wiring and component assembly of twenty-five of these instruments to do, and when they have finished these their first job will be complete.

(Continued on page 2)

Left: The wiring of the main frame of an air traffic control radar display being fitted with fuses by Mrs. Audrey Cove.

Below left: Mrs. Irene Whitehorn working on the panel for the screen which will show the picture of the aircraft on their routes.

Below right: Mrs. 'Pip' Maughan fitting the plugs in another main assembly.



New orders, new plant



This has been an unprecedented year in many ways and above all a challenge to every one of us. We faced up to all the rigours of the fuel crisis and together we overcame the difficulties; throughout the crisis technical and commercial work and full production was maintained without a break. We had an influx of new orders, including such triumphs as selling two radars to the French Ministry of Defence; that really is coals to Newcastle. We put new products in the shop window at Farnborough and created enormous interest.

New designs

The Company is battling with absolutely crippling inflation, and yet our business position has remained pretty sound so far. We have continued our high level of capital spending on new plant, on expansion of production facilities and on new designs. For the future, it depends on us. If we can achieve more output, can keep an intensive watch on costs and waste, and all of us put just that little extra effort into our daily job, then I believe we will continue to pay our way and generate the surpluses we need for expansion, for investment in modern plant, and for new products.

I believe there is a good and growing team spirit, not only on each site, but in the company as a whole. This needs to be encouraged—there is too much gloomy talk in Britain today, and we must play our part in killing despondency. We have a great deal to be proud of in Marconi Radar, and we should never hesitate to say so. We enter the new year conscious of many pitfalls and difficulties ahead, but I, personally, feel very proud that I am backed by 5,000 people determined to succeed, and succeed we will.

It is my pleasure to wish you all, with your families, a very happy Christmas and a cheerful and satisfying New Year.

John Sutherland, Managing Director



Cable layout

A cableform being made by Mrs. Peggy English. She feeds the wires into this pegged out design, on the cableform board, cuts them to length and then binds the core into one unit. The cables work like the veins in the body carrying power to all the individual components. Peggy joined Marconi, Writtle, back in 1965, and came to MRSL, Crompton's, to wire printed boards. With her here is Mrs. Miriam Moore who has just started in the training department.



Guiding hand

The training department's instructor, Jerry Pettitt, centre, with right, Mrs. Sylvia Long, who has laid in a cableform and is wiring the edge connectors; and, left, Mrs. Irene Whitehorn, working on a front panel.



Wiring and assembly

These three ladies have been trained to do light assembly as well as wiring. Here, they are assembling printed boards for the S600 radar. Right to left, Mrs. Bessie Banes, Mrs. Elsie Hall, and Mrs. Pat Woollard.

Ready for next orders

Only twelve weeks ago these ladies started on this kind of work—Irene Whitehorn, Sylvia Long, Audrey Cove, and 'Pip' Maughan. Before that Mrs. Whitehorn was an RAC queries clerk in Croydon, Mrs. Maughan was working in a canteen, and Mrs. Long was a dress machinist turning out 80/100 dresses a week from her own home. Now they all have experience which will stand them in good stead when the next works orders for radar displays come into Assembly.

Basic training at Cromptons

Since Jerry Pettitt joined the department all new ladies have received their basic training from him, and are continuing with the simple tasks. They are doing good work on many smaller jobs as well as on tag-boards and spidery cableforms, which look anything but simple; and of course learning to assemble printed boards.

Jerry Pettitt, himself, is still putting finishing touches to his training—he has recently been to Letchworth on an instructors' course. He started at New Street Works as an apprentice and went on to Baddow Workshops. Now he has joined MRSL's Crompton training department after seventeen years with Marconi.

This new venture comes under Claude Stoneham, the Senior Foreman of Production Department responsible for instrument making, wiring and assembly. People in the section work in spotless, almost gaily decorated, 'clean' conditions, and even have a door mat. Anyone joining this happy unit will enjoy learning to work on equipment which will, itself, be going out to do an interesting job.

Leicester's Annual Dance

The Annual Dance of Leicester's Sports and Social Club, which draws its membership from Marconi Radar Systems and GEC-Elliott Process Automation, will be held from 8 p.m. to 1 a.m. at the Palais-de-Danse, Leicester, on Thursday, January 2, 1975.

A feature of the evening will be the Beauty Contest to choose 'Miss GEC Leicester'. Tickets for the dance are priced at 60p.

Not now darling

In our last issue we reported the formation of a new joint drama group, 'Reflectors', at Leicester, and announced that their first production would be Ray Cooney and John Chapman's famous comedy, 'Not Now, Darling', to be performed in the New Parks canteen shared by Marconi Radar Systems and GEC-Elliott Process Automation, in early December.

Unfortunately, with Christmas so close at hand, we have had to go to press before the performances start, and so our report and

picture will have to be held over until the next issue. However, all the signs are that the production is going well.

One thing we can certainly report is the hard work and enthusiasm of the group's members. Ron Brown of the buying department at Blackbird Road, who has produced the play, says: 'Within the space of eight weeks we have not only learned and rehearsed the play but have also produced special lighting, switchboards, scenery, props, posters, programmes, tickets and the rest of the theatrical paraphernalia—all from scratch and all in our spare time.'

Michael Clark, Maurice Funnell and Shirley Morrill, of Leicester's drama group Reflectors, hard at work on their first production.





New J.P.

Derek Croucher, foreman of printed circuit board assembly at Leicester's Blackbird Road factory, will soon be working on a different kind of bench from the one he has been used to for the last 15 years. For at Leicester Town Hall recently, Derek took the oath to become a Justice of the Peace.

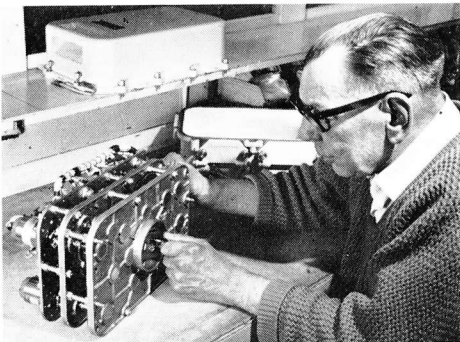
'When I was approached a few months ago to see if I was willing to become a JP, it came as a complete surprise,' says Derek. 'My duties will eventually involve sitting on the Leicester City Magistrates' Bench, where at the moment I am sitting in as an observer. I am sure I shall find it very interesting and worthwhile and I am looking forward to it.'

Derek is a member of the Leicester District Committee of the AUEW and is also on the Engineering Advisory Committee of Charles Keene College. One of his spare-time interests is Yoga, in which he supervises evening classes. He has a wife, Pamela, and three children.

* * *

A personality

Below: Joe Bull, a well-known personality at Leicester's Blackbird Road factory, who recently completed 35 years' service with the Company, is pictured here assembling a gearbox for the radar Type 909 in the Mechanical Assembly Area. The naval tracking radar Type 909, designed for use with the Royal Navy's most modern weapon, the Sea Dart missile, is installed in the new Type 42 and Type 82 destroyers as the main British naval air defence system.



Anyone for bridge

The Leicester bridge club has continued to go from strength to strength since its inception some ten years ago. The club already has five teams of eight playing in the Leicestershire League, and plans are afoot to form a sixth team as soon as more enthusiasts can be found.

The club's headquarters are at the visitors' dining-room at New Parks, though matches are, of course, played all over Leicestershire. The 'A' Team were First Division Champions in 1972 and finished in the top half of the division last year. Various members have played in the Leicestershire First Team, and John Milne (Marconi Radar) and Akbar



The Royal Navy's £24m missile destroyer, HMS 'Bristol', is equipped with a wide range of Marconi radars and control systems.

Why Navy?

Leicester, with its special responsibility for naval systems, has a background of collaboration with the Royal Navy extending from surveillance and tracking radars to complete weapon and control systems.

It was no surprise, therefore, to find the New Parks canteen full to overflowing recently for a lecture entitled 'Why Navy?', presented by Captain D. M. Eckersley-Maslin R.N., who, after many years' experience at sea, is now on the Naval Staff with particular responsibility for the operational requirements of future ships of the Fleet. He was appointed to lead the RN Presentation Team in May.

Importance of Merchant Navy

The Captain's talk, well illustrated by film and slide, was an absorbing one. Emphasising the importance of the Merchant Navy, he pointed out that in gross registered tonnage the UK Fleet was the third largest in the world, exceeded only by Liberia and Japan. In 1973 our imports of principal raw materials were food (43% of the UK requirement), animal foodstuffs (46%), iron ore (62.6%), timber (85.7%), and petroleum (99.8%). As far as UK exports were concerned, 50% went to Western Europe, 16% to North America, 3% to Latin America, 3% to USSR and

Eastern Europe, and 28% to the rest of the world. More than 120 ocean going ships arrive in Western Europe and discharge one million tons of cargo each day, and the average density of ships trading for UK on the Cape route is one every twenty-five miles.

Turning to the Royal Navy, Captain Eckersley-Maslin put forward the case for maintaining a strong naval fleet, in spite of ever-increasing costs. By way of comparison, a pre-war (1939) Arethusa class cruiser cost £1¼m (£8½m at '74 prices) and a pre-war Hunt class destroyer £½m (£2¼m at '74 prices), whereas the present-day destroyer 'HMS Bristol' cost £24m, and modern fleet submarines £29m each.

Of particular concern was the rapid expansion of the Soviet naval fleet—a matter much in the news just lately. The fleet strengths of the world this year show that the navies of all NATO members (including USA) possess 45 missile submarines, whereas USSR and its satellites have 136. USSR has 267 other submarines against NATO's 209, and 34 cruisers against NATO's 29. USSR is also catching up with its destroyers and escorts, which number 440 against NATO's 505.

Soviet deployment

The pattern of deployment of Soviet naval vessels has also drastically changed within recent years. In 1962, for instance, the maximum Soviet deployment was 10 vessels in the Atlantic, 10 in the Mediterranean and none in the Pacific and Indian Oceans. In 1973, the figures had risen to 25 in the Atlantic, 96 in the Med. and 45 in the Pacific and Indian Oceans.

Pathan (GEC-Elliott) are considered to be one of the strongest pairs in the county.

Anyone interested in joining should waste no time in contacting Bernard Meggs, club chairman and captain of the 'A' Team, or secretary Clive Wells—both at New Parks—or any other member of the club.

Putting us all in the financial



Machines have come to our aid in stepping up the rate of flow of all the bits we make. Machines are used for stock control and for keeping tabs on the raw materials.

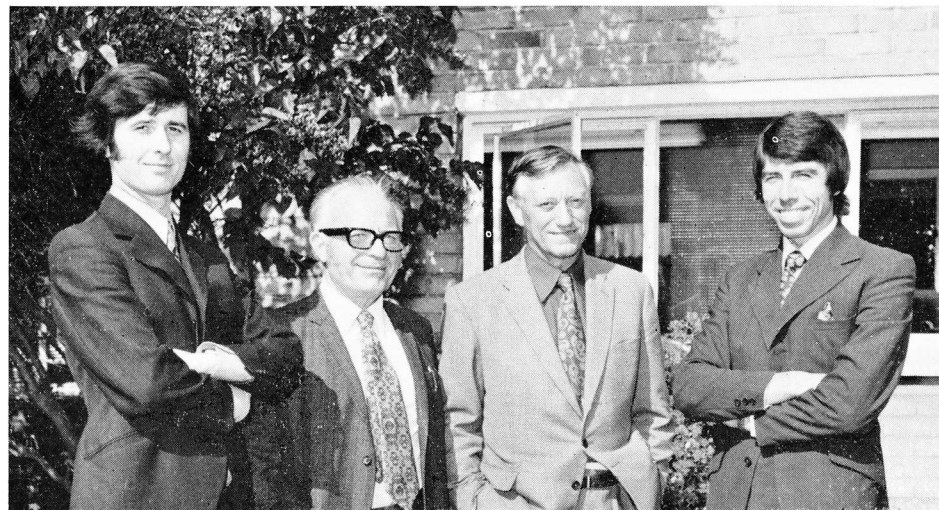
Machines have come to our aid in accounting too. For all the thousands upon thousands of components used in any major piece of equipment must all be accounted for. Time also is a vital component of product price, time spent on research, design, manufacture, test and trial.

The accountants, therefore, are faced with reams of incoming records, and it is their job, like that of any production department, to get intelligible answers from them and produce a complete system of figures which will show the Company's state at a glance and assist the Directors with their financial responsibilities.

How do they do it?

The biggest part of works accounting deals with the inventory—work in progress on the customer order—and because of the vast number of small transactions the only way to deal with work in progress is the computer. Divisional accounting is similar, but concerns the project, the contract as a whole.

Every conceivable operation we carry out, not only in manufacture at Leicester, Chelmsford and Gateshead, but in other spheres of work like installations at home and overseas, is priced and recorded, and the myriad details are ducted by systems of control and absorbed by accounts departments



Top: Marconi Radar Systems' Financial Director, Peter Causey, centre: with Geoff Richardson, Chief Accountant and his Secretary, Mrs. Betty Richardson.

Below left: New Parks, Accounts, Leicester. L. to r.: Julian Bird, Phil McAngus, Ron Wills, Richard Brocklesby, Chief Accountant, Leicester, John Scotney.

Above: The Chelmsford team: Alan Adams, Chief Accountant, Chelmsford, third from left, with l. to r.: Dick Foy, Management Accountant, Systems Division; Bert Raynor, Works Accountant, Chelmsford; and Peter Tabor, Support Division's accountant.

Below right: New Parks, Machine Room. L. to r.: Sandra Arnold, Mary Read, Brenda Kenny, Beth Hutchinson, Christine Johnson, Doreen Cross (striped jacket), Ann Watts, Mavis Graves.



picture

throughout all sections of the Company encircling the hub at Chelmsford.

Details, the raw ingredients of the accountant's facts, are processed in all his departments to give his figures; and the first of these are basically factor costs, materials and wages. Thereafter come tussles for the right selling price.

Structure

Each department has separate sections for special purposes; for instance: Invoice Clearance and Creditors Sections deal with the payment of suppliers; Wages and Cashiers Sections deal with our work force, and the Debtors Sections handle information and accounts coming the other way—receipt from customers. Data Preparation Sections handle the flow of information to the computer.

The whole financial structure relies on the people of the different departments and their ability to handle their jobs. Each in his particular sphere of work helps the debit and the credit columns to add up with, we hope, a balance for the work done. This indicates other facets of individual skill: an accountant at a works can be of great value to his Manager, who, now more than ever, has to pit his wits against circumstances work- and money-wise.

Managers at all levels depend on a feed of information. And it is by means of the system of accounts departments that this is available and that the ready flow runs to base where the financial picture is built up to enable the Directors to make the vital business decisions which will bring home the lolly.



Above: Chelmsford's Data Preparation Group: l. to r., back row: Deborah Gresty; Mary Bradley; Mrs. Pauline Mariner; Mrs. Jane Bishop, Supervisor; Mrs. Iris Edwards, and Elaine McAuliffe.

Top: Blackbird Road, Accounts, Leicester. L. to r.: Peter Longmore, Bill Bonner, Rodger Hinds, Tom Page, Les Western, John Vezey, Rae Spillane.

Below: Blackbird Road, Accounts. L. to r.: Jenny Campos, Iris Locke, Kath Richards, (front row) Tina Cramp, Lilly Herbert.

Tom Lavin,
Works Accountant,
Gateshead.



Frank Furey,
Divisional Accountant,
Air Space Control
Division



OPEN DAY

Open day was an invitation for people to come to Crompton Works to see our production area, and in particular to see the new manufacturing sections in A building. These new sections add 33,000 sq. ft. to

our floor space, and together with the new machines which are being installed represent a tremendous investment for the future of our Company.

The higher output from these sections will help to streamline the flow of equipment against the cost of producing it, and is all part of the scheme to revitalise our methods and keep costs down.



Above: Mrs. Paula Smith, right, showing Mary Bond how printed boards are made. Mary's boy-friend works at Crompton's and her father at New Street. Behind is Eric Groves, Leading hand of Printed Boards.



Above: Chris Boucher, left, who has been appointed Production Manager, Crompton's Works, with Brian Henderson, Chargehand Sheet Metal Section.



Above: Janice Smith, right, and Elaine McPhie were two of the Company guides who helped to show people round and make their visit interesting.



Above centre, Kevin Mansfield, left, shows the operation of the power notcher, a machine which will bite out corner sections from a metal plate.



Above right: Selected pieces of metalwork done by apprentices in their tests. On the right Ernie Oliver, who has 28 years service, 24 as Sheet Metal Apprentice Instructor.



Below: Ron Bernhardt, right, who has recently been appointed Manufacturing Facilities Manager, showing his family round the new departments in A Building. Next to him are his wife Lillian and daughter Linda, and on the left his son Peter with his girl friend Carol.

Below: Joan Kendall, Works Personnel Officer, with her interviewing team and their assistants, and an interested visitor at the table. L. to r. Vera Cloughton, Carol Letch, Jackie Byatt, Joan Kendall, Mary Macklin, and Dorothy Roberts.



More IVR orders

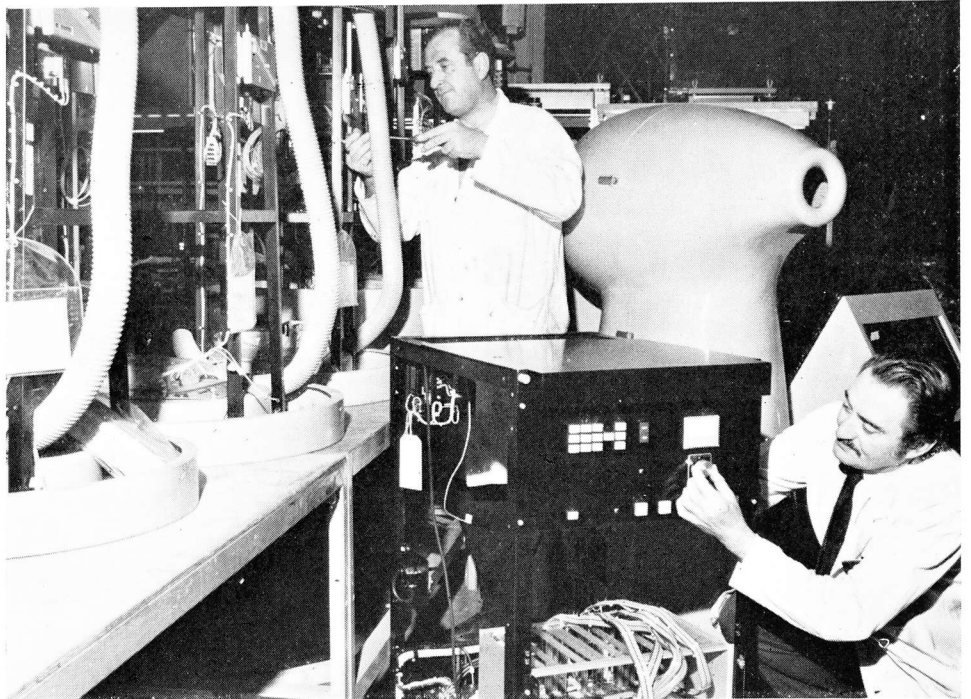
Recent orders for Leicester's successful IVR runway visual range system include one for the airport at Dhahran in Saudi Arabia and another for Edinburgh's Turnhouse Airport in Scotland.

The fact that Dhahran's visibility problems are concerned with sand and dust, whereas Edinburgh's are associated with fog, mist and snow, serves to emphasise the versatility of the Marconi system.

The computerised IVR (Instrumented Visual Range) system is designed to measure and record automatically the range of visibility on an airport runway. The continual and accurate presentation of this information is not only a vital aid to safety but helps to maintain schedules and avoid diversions.

The IVR Mk. 2 system now being produced replaces the former IVR-1. The Mk. 2 system provides facilities for both ICAO Category 2 and (with alternative modules) Category 3 airfields and is capable of handling up to six field sites on various runway configurations.

The system employs a variable number of unattended field sites which are installed alongside the runway. Information from the field sites is transmitted to a central



Joe Hudson (left) and Ray Tout assembling equipment for Leicester's new IVR orders at Blackbird Road. Joe is working on a transmissometer assembly and Ray on a central processor. Also in the picture is a transmissometer housing—popularly known as a 'dalek'.

processing unit, where a computer scales the optical data against calibrated references, assesses the visual range and displays it in digital form.

Orders for the Marconi IVR system, to date, have included installations for Riyadh and Jedda (also in Saudi Arabia), Prague

and Cairo. It is in service at most of Britain's major airports, including Heathrow, Gatwick, Manchester, Liverpool and Glasgow, and the equipment is currently being evaluated by the Federal Aviation Administration at their test centre in Atlantic City, New Jersey, USA.

News from Gateshead

Children's Party Arrangements

Once again the children's parties are in full swing. The party for the younger children will be held in the Canteen on Saturday, 21 December, with the usual ingredients of magic, cartoon films, cakes, pop and singing plus, of course, a present from Santa.

For the older children 10-14 years, there will be a visit to the Theatre Royal, Newcastle, to see *Cinderella* on Fri., 3 Jan.

Active FSA

Ron Archer tells us that in search of a sanctuary he went along to the Purchasing common-room to produce this communication on the FSA.

The Foremen and Supervisors are very active, and extremely interested in their environment as their programme shows. They also gave their colleagues from Leicester a very warm welcome.

One of their trips out was to Newcastle Airport where the Airport Director arranged for them to see around all the terminal buildings, so that they could find out what went on in the briefing room; see the traffic control tower, and watch and listen to aircraft being talked down; visit the emergency centre which handles everything to do with fire and safety; and finally to look round the engineering centre where the aircraft are maintained. This was a tremendous visit, and interesting to see how the airport fraternity tackle their tasks with quiet efficiency.

The FSA also went to the Department of Nautical Science; and there was a lecture at the Works on the new sewerage network to eliminate the use of the River Tyne as a means of sewage disposal.

Arrangements are well in hand now for the Association's dinner on Friday, 31 January, at the County Hotel.

Leicester colleagues' visit

It was a great day for the Gateshead FSA when they entertained a party of their colleagues from Leicester.

After an excellent lunch in the canteen prepared by Mrs. Hall and her staff, the party split into two, one half going for a sniff of the briny—and kippers—up the coast to Sea Houses and Bamburgh, the other going to St. James' Park, to see Leicester City Play Newcastle United; and Leicester won.

A very pleasant evening in the Club followed, and it was not until about midnight that the Leicester party left for home.

Jim Dathan retires

Jim Dathan has retired after twenty-four years' service. He joined Gateshead Works from the RAF, started in the old Radar Dept., and transferred to Development Laboratory where he led many projects on aeriels. He moved to Engineering Dept. and to Established Design.

The presentation to Jim, which included binoculars, was made by his Chief, J. H. Robinson, on behalf of his many friends in MRSL. The staff of EDG and their wives gave Jim and his wife, Jean, a dinner party at the County Hotel to wish them every happiness for the future.

Why did he do it?

The results of man's tremendous technological advances—the exploration of space and other scientific projects—are having a great influence on our lives. Yet it seems that we have not learned to utilize the earth's resources to the benefit of all, and at this Christmas time many millions of people will not have enough to eat.

Measurable?

Jesus Christ was born in very humble circumstances—in a stable of all places. He came here to live a human life; we celebrate this at Christmas. Why did he do it? The bible says, 'He who was rich became poor—in order that we might become rich'. Riches and poverty are measurable by human standards, and it is our duty to help those in need. True riches are immeasurable.

Jesus had no money because he was not concerned with tangible riches; yet he always had enough to live on. Christmas reminds us that only through Christ's teaching, and faith in him, can we find the intangible riches which overcome all difficulties.

John Lancaster, *Chairman, Cromptons Christian Fellowship*

Autocross debut

Julian Bird, driving a Lotus-engined car lent by colleague John Parrott, came a very creditable sixth out of eleven cars at his first-ever autocross attempt, and won the Novices Award.

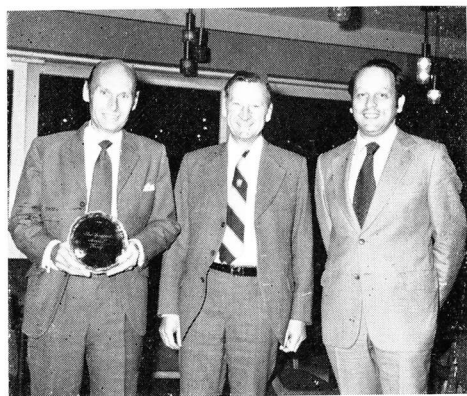
This year's Marconi autocross—the second to be organised by the Leicester Auto Club—again proved popular with competitors and spectators alike. This speed event in which cars are started in pairs took place in a large—and muddy—field over two laps of a 750-yard course. Different classes of entry catered for most types of machinery and the event was

open to all members of the co-promoting clubs who were holders of an RAC licence.

The Leicester Marconi Auto Club has now been established for three years, and meets monthly for a 'natter and noggin' at a local hostelry: club nights include film shows, table top rallies and slot car racing. The Club is RAC recognised, autocross being only one of its competitive activities. Rallies, autotests, treasure hunts and navigational runs are organised; and touring rallies and camping week-ends are features of its activities. Membership is not restricted to MRSL people. Readers can obtain further details and membership forms from the Club Treasurer, Mr. J. P. Bird, 138 Spencefield Lane, Evington, Leicester (Telephone: Thurnby 2801).



Julian Bird, a budget accountant at New Parks, sliding through a bend in the Marconi, Leicester, Auto Club's annual autocross.



Golf champion

Left: Freddie Robertson, of MRSL centre, was runner-up to Peter Turrall, left, winner of the Marconi Golfing Championship and of the trophy given by Mr. and Mrs. Farnsworth in memory of their son Paul. Here they are at the MASC with Tom Mayer, President of the Marconi Golfing Society.

New committee

Below: The Marconi Athletic and Social Club now has twenty-six sports sections which cater for the interest of everyone; and it also provides a regular programme of entertainment



at the MASC clubhouse, Beehive Lane. Here is the Chairman and General Committee elected for 1974/75; left to right—Back row. Bob Lincoln, Mike Downes, Arthur Honeyball, John Routledge, Iris Miller, who was acting as secretary instead of Phillis Day, Ron Jones, Nita Sizer, Mike Rowe. Front row. Gerry Wignall, Club Manager, Bryon Brewer, Chairman, Les King, Robbie Sims, Vice-Chairman. John Bower was unfortunately not able to be present for the photograph.

Darts knockout

Below right: Chelmsford's Production Control team reached the quarter finals in the MASC's knock-out darts tournament in which twenty-five teams from all sections of the club took part. Here in the picture are, left to right, Graham Meek, Derek Harbour, George Taylor, Bob Arnold, Nick Nice, Nigel Hurrell and aiming for double top, Phil Windsor. Below left: the Works Accounts team, left to right: Mike Elliston, captain; Steve Jennings, Mrs. Susan Glover, John Knight, Roy Escott, Malcolm Roots, Barry Naulls, Andrew Lake.

In the final, EEV, Maldon, 'A' team met PCM 'B' team; and EEV won. There were 'Party 7' tins of beer as prizes for the winners plus tickets for Stag Night. Runners-up and chalkers of finals got packs of 12 beers.

After Christmas there will be an inter-departmental tournament—mixed MRSL and MCSL. Will Sections who would like to take part please contact Arthur Spooner, New Street, internal 562, external 370, or Jack Bigden at the MASC.

