

DECEMBER 1978

**Marconi
Radar**

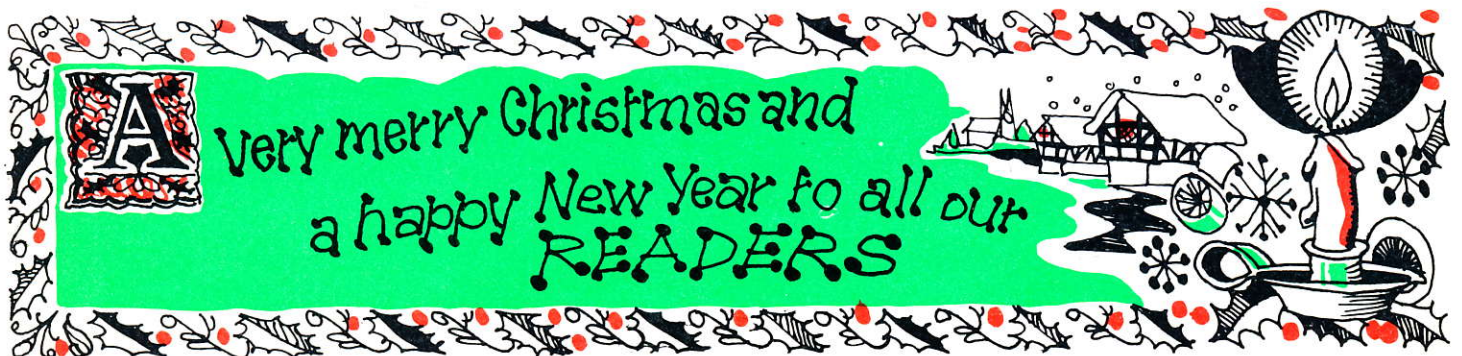
ECHO

The internal newspaper of Marconi Radar Systems and its people



PRINCE CHARLES AT CHELMSFORD

— see centre pages



AN EVENTFUL YEAR

IT hardly seems possible that another year is coming to an end; it has certainly been an eventful one for Marconi Radar.

We have substantial new orders for the Royal Navy which will keep us busy for several years, and firm plans have been discussed with the Ministry of Defence for further RN orders covering the next ten years. They have put great faith in us, and we must make sure that this trust is not misplaced.

The Farnborough Air Show in

by
JOHN SUTHERLAND
Managing Director

September saw the launch of MARTELLO, which will be the mainstay of our export business in the 1980's. Our 'new baby' attracted a great deal of interest, both from potential buyers and from the World Press, who gave it excellent coverage.

I must thank all the people who

worked so hard to get it to Farnborough on time, and everyone concerned should be genuinely proud of MARTELLO as an achievement in the true tradition of Marconi radar.

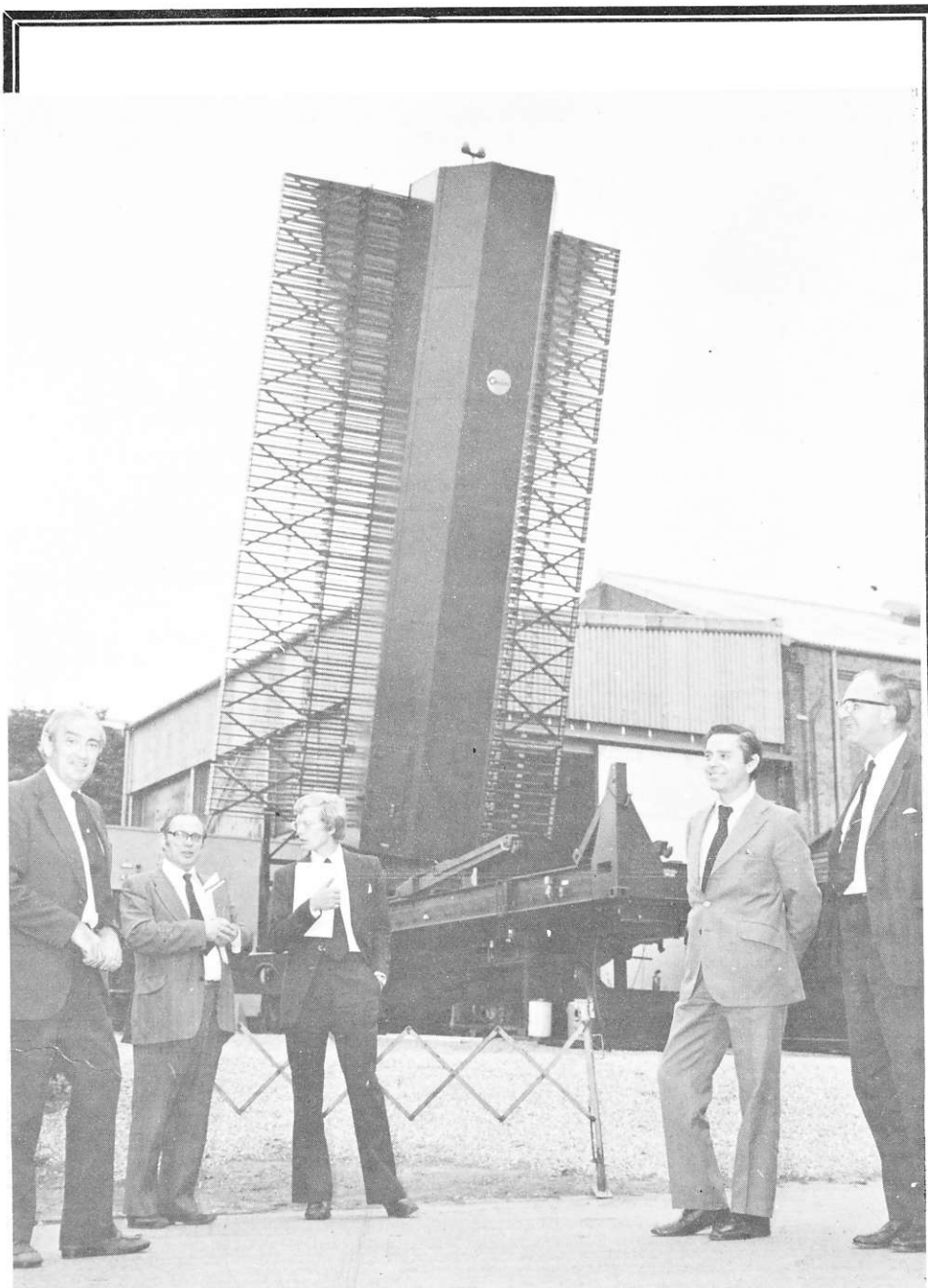
Prince Charles' visit in October was also a very proud occasion — this was a private visit to enable him to meet people in the Electronics Industry and to find out what makes the very complicated business tick. Everyone who met the Prince was impressed with his genuine interest and his friendliness. He sent me a message afterwards thanking everyone who had contributed to the day.

Prospects

The business is in good shape generally, and the prospects are excellent, but one cannot ignore the fact that we have some problem areas resulting from continued shortages of qualified, skilled and experienced people, shortages which are common to the whole Electronics Industry. Timely delivery is of great importance and we must all strive to achieve it.

Hopefully the New Year will see many of these problems behind us.

It only remains for me to wish all of you and your friends a joyful Christmas and a contented, peaceful and satisfying New Year.



SCIENTIFIC ADVISER'S VISIT

● Professor R. Mason, FRS, Chief Scientific Adviser, Ministry of Defence, recently visited Writtle Road with his private secretary. The visitors are seen here in the shadow of Martello with Managing Director John Sutherland, Technical Director Roy Simons and Development Manager Nigel Ellis-Robinson.

COMPANY HELPS HMS BRISTOL RAISE £1,330 FOR SCHEME



MARCONI Radar has helped the ship's company of the guided missile destroyer HMS Bristol to raise £1,330 for a cardiac machine for the Bristol Royal Infirmary.

The effort was made during the ship's recent visit to the City of Bristol, when one of the highlights of the scheme was a 98-mile march by 26 ratings from the Guildhall, Portsmouth, to the ship at Avonmouth. During the march, which was sponsored by the Company, more than £360

was collected from passers-by along the route.

The cardiac machine is now paid for and was presented to the Bristol Royal Infirmary at a ceremony on the jetty at Avonmouth when the marchers arrived. Needless to say, many of them were by then in considerable discomfort caused by muscle strain and foot blisters!

An estimated surplus of £500 will exist when the last of the sponsorship forms have been collected. This will possibly be used to help purchase and train a guide dog for the blind, with some being given to the Lady Mayoress of Bristol's appeal for a "bionic hand for a little boy."

LEFT: The 26 ratings from HMS Bristol on parade at the Guildhall, Portsmouth, before setting off on their 98-mile march.

BELOW: HMS Bristol, one of the Royal Navy's Type 82 missile destroyers, is equipped with a wide range of the Company's radars and control systems.



Goodwill

In a letter to the Company, Captain A. F. R. Weir, RN, Commanding Officer of HMS Bristol, writes:

"The success of this venture, and the goodwill which it has fostered, is in no small measure thanks to your extremely generous contribution of £300. The arrival of your cheque in the ship convinced everybody that what seemed a daunting task was within our capabilities. Thus, courtesy of Marconi Radar Systems, momentum was gathered and we never looked back."

Managing Director John Sutherland has replied to Captain Weir, saying that he is only too pleased that the Company was able to participate in a small way.

New Faces

WE welcome these new clerical trainees who joined us at Writtle Road in September to start a two-year training scheme.

(Front row, left to right) Heather Whale, Susan Rainbird, Michelle Ring, Julie Freeman, Hazel Saxon and Deborah Ellis. (Back row) Alison Staines, Wendy Barnard, Denise Dadd, Kim Smith, Julie Morris and Nicola Bird.



Decca join in simulation project

THE Company is collaborating with Decca Radar Limited to provide an all-weather, day, night or twilight ship simulator.

Decca's now well-proven ship simulator bridge and drive equipment combined with Marconi Radar's equally well-developed Television Picture Generator (Tepigen) is said to provide a ship simulator of unique capability.

The UK Department of Industry, having sponsored the development of both the Decca ship simulator and the Marconi visual display system, are now sponsoring the combination of the two.

Success

The Tepigen system developed at Leicester has already proved its success at home and overseas with contracts for gun and guided weapon aimer trainers and is a vital part of a new range of flight simulators.

When used as the 'all-weather' visual part of the Decca-Marconi ship simulator, the system projects colour television pictures to simulate the actual visual conditions obtaining from a ship's bridge throughout the course of an exercise. The scenery can be



This picture was taken during the development of the Decca/Marconi ship simulator at New Parks.

MARTELLO

VIEWED in retrospect, this year's Farnborough International can be said to have been a highly successful shop window for the Company.

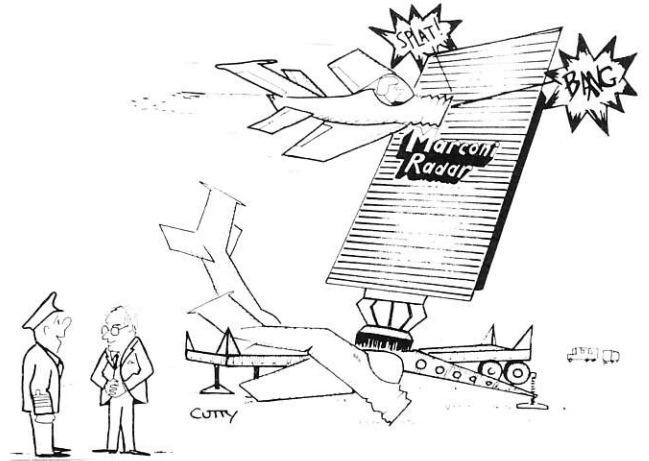
Main talking point, of course, among the thousands of visitors to the exhibition complex was Martello, our new long-range

three-dimensional radar.

Managing Director John Sutherland was interviewed on the subject by Independent Television for the evening news, while the following extract from a newspaper article is typical of what appeared in the more popular press.

... and
if all
else
fails ...

• A flight of
imagination
by Hugh Cutmore
of Establishments,
Writtle Road.



"It has certainly plugged a gap in our Air Defence System, J.S."

manipulated freely and quickly to give a view which changes as the ship alters its heading and position. Transition from daylight through dusk to darkness is realistic, and visibility can be varied from unlimited to thick fog.

The Decca-Marconi Ship Simulator will be marketed by both Decca and Marconi.

THE FIFTH MARCONI INTERNATIONAL FELLOWSHIP

LEARNED societies, academies, universities and individuals in industry, throughout the world, have been invited to nominate candidates for the Fifth Marconi International Fellowship.

The Fellowship — a \$25,000 grant — commemorates Guglielmo Marconi's creative contributions to scientific discovery, engineering and technology. Established in 1974 on the centenary of the inventor's birth, the Fellowship commissions significant works that will add to the knowledge and understanding of how communications, science and technology can be applied to the improvement of human life.

The special subject chosen for the 1979 Fellowship is:

'Outstanding advances in satellite and space technologies — relevant to improving world communications.'

The Grant will be made to an individual in recognition of outstanding contribution in this field, and it will be used to commission work by the recipient or by some person or persons nominated by the recipient. It is customary to invite the Fellowship recipient or his nominee to deliver a public lecture based on the commission during the twelve months following the presentation of the Fellowship.

DOMINATED FARNBOROUGH

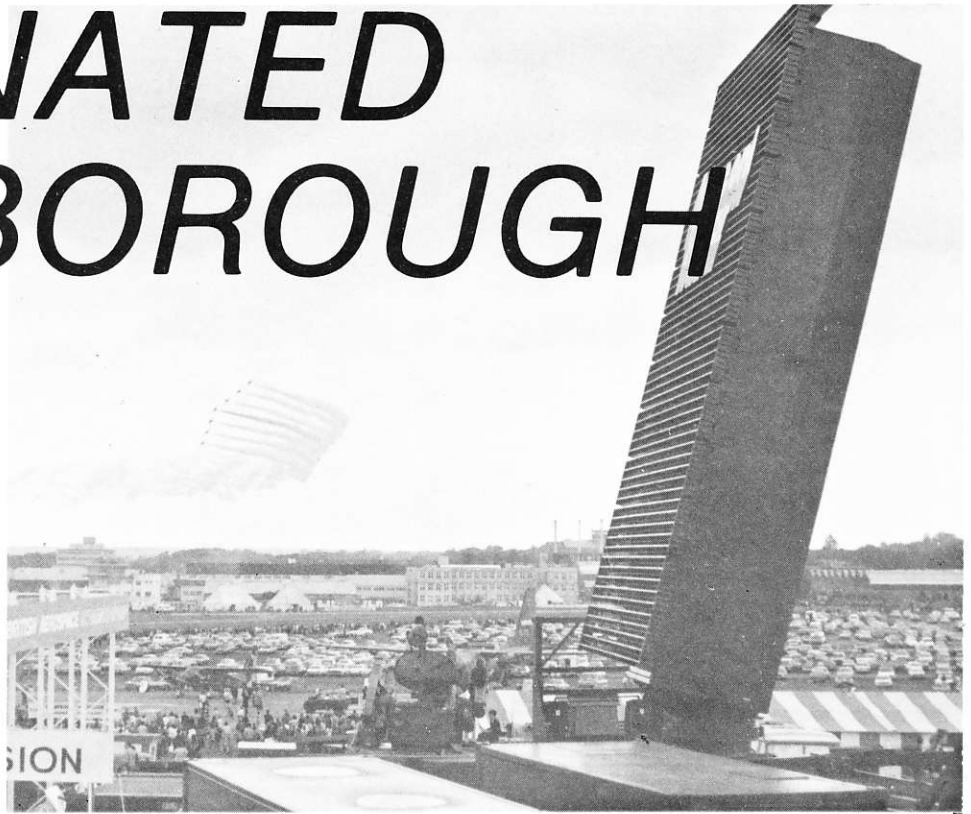
"An impressive radar display by the firm of Marconi Radar Systems dominates the skyline at this year's Farnborough fair at the Hampshire Airfield.

"Unveiled at Farnborough for the first time is the massive Martello radar scanner. It looks something like the flatbed part of a container lorry heaved up on its end to an almost vertical position.

"It can swing swiftly round on a central pivot, searching out enemy warplanes more than 300 miles away with a high degree of accuracy."

Record

The Martello antenna was built at Gateshead in record time. Gateshead Works Manager Bill Henderson said: "I am really proud of the team here. Everyone from the shop floor to the production and engineering and design teams pulled out all the stops to achieve a wonderful result ahead of schedule."



Martello keeps a watchful eye on the Red Arrows as they perform their aerobatics over the airfield. The Red Arrows team were entertained to lunch in the GEC-Marconi chalet on the Friday of Farnborough Week.



Young generation raise £170

THE Young Generation — Entertainments Section of the Marconi Athletic and Social Club at Chelmsford — have raised £170 for the North East Thames Burns Unit, Billericay, by holding a very successful Disco Evening in August this year.

The section, headed by Chairman Ken Wilkinson (Baddow PCB Department), met the representatives of the Burns Unit at a handing-over ceremony recently.

The money will go towards setting up a Burns Unit in Essex. At present the nearest

Unit is in London. The amount raised to date is £300,000, but a further £100,000 must be found soon as it is hoped to start building at St. Andrew's Hospital, Billericay, within the next year.

In our picture, Ken Wilkinson (centre, right) is shown presenting the cheque to Mr. A. F. Wallace, FRCS. Also in the picture, together with representatives of the hospital, are Steve Harding (Section Treasurer) and Kim Lambert (Section Secretary).

Letter of thanks . . .

AT 6.30 on a bright sunny Sunday morning in September, 75 members of MRS L Chelmsford set course on a journey to Farnborough International 78.

After an uneventful journey they arrived at about the same time as 150,000 would-be enthusiasts. This did not deter them and eventually they arrived at the GEC Marconi enclosure where they were royally entertained and were able to watch an enthralling air display which lasted from 2 pm to just before 6 pm.

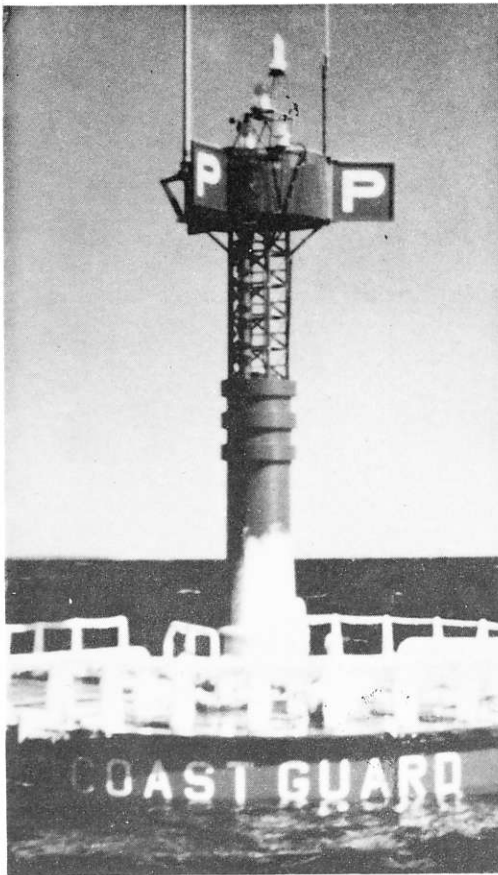
Pleasurable

Once again their departure coincided with that of the 150,000 and so a slow journey home commenced, with the coaches arriving back in Chelmsford at 2200 hours.

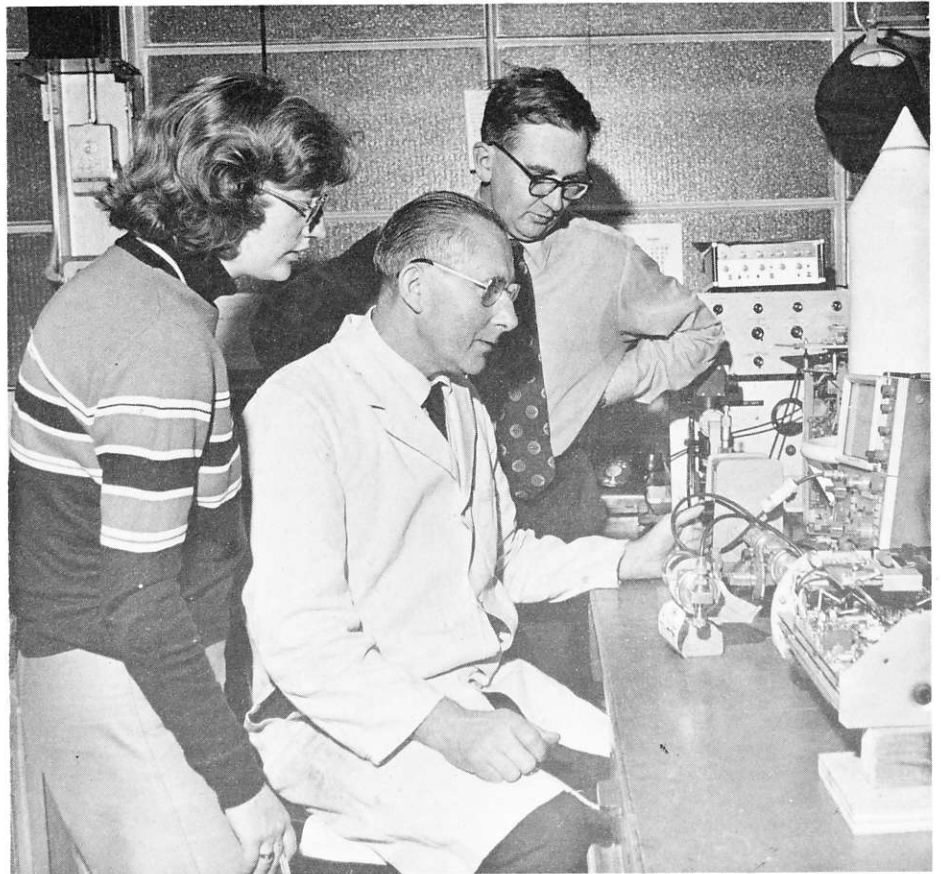
What a day! But a pleasurable one, and my 74 fellow travellers would like to say thank-you to Mr. John Sutherland for giving us the opportunity of spending such a day.

JOHN BURRAGE.

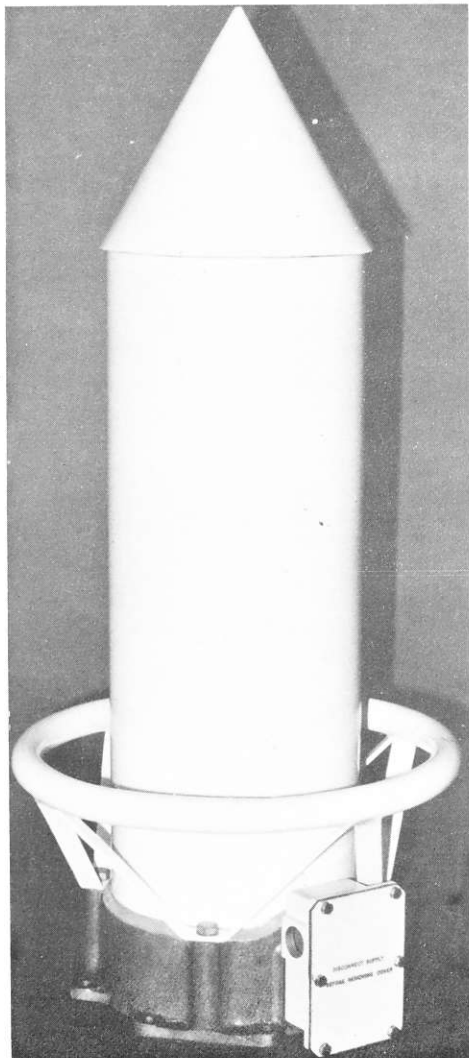
(Similar letters of appreciation have been received from Leicester and Gateshead. — Ed.).



The Marconi racon can be seen (centre, top) fitted to this lighted horn buoy at Portland, Maine, U.S.A. Picture by courtesy of United States Coast Guard.



A racon on the test bench at Blackbird Road, with (left to right) Carole Howgill, Production Control Clerk; Arthur Hames, Test Engineer; and John Briggs, Project Manager. Production of the racon is shortly to move to Gateshead Works.



A special purpose Gastight Racon with handrail fitted.

ON WATCH OVER THE OCEAN

THE latest order for our Sea-Watch 300 radar beacons — popularly known as 'racons' — brings to over 350 the total number of beacons sold since their introduction some seven years ago. The new order is a direct result of a highly successful evaluation in Norway and was negotiated through Norsk Marconi, Oslo, for the Norwegian Lighthouse Authority.

The Sea-Watch 300 beacon is an all-weather navigation aid which complements or even replaces the usual lights and sound signals. It can mark maritime stations, warn of hazards in a wide range of inshore and offshore applications, and act as a transponder for radar echo enhancement and identification of ships and other vehicles.

Response

The operating principle is that the beacon is automatically triggered by the pulses transmitted by ordinary X-band radars, whether from ship or helicopter, up to a range of about 40 kilometres (22 miles). A morse-coded response is immediately displayed on the ship's radar screen, giving the beacon's range and bearing. In this way, recognition of

the navigational station or hazard is instant and sure.

Lightweight, compact and robust, Marconi racons are now in use in 35 different countries in conditions varying from arctic to equatorial. More than 20 Lighthouse Administrations have specified this equipment and it is finding an increasing use in the offshore oil industry.

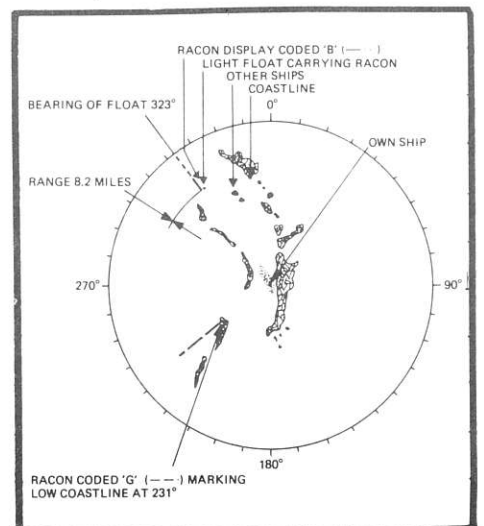


Diagram showing a typical radar display with racons.

Gateshead News



Mrs. F. Bell being presented with a picture of a woodland scene and a gold bracelet on behalf of friends and colleagues on the occasion of her retirement after 16 years' service with the Company at Gateshead Works. The presentation was made by Mr. R. E. Amos, Production Services Manager.



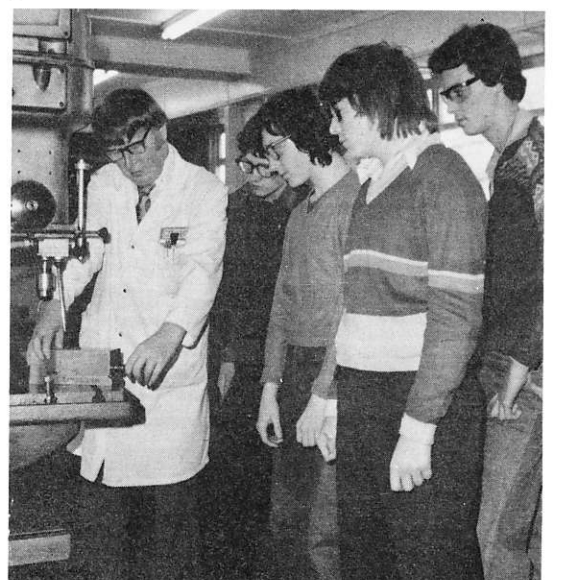
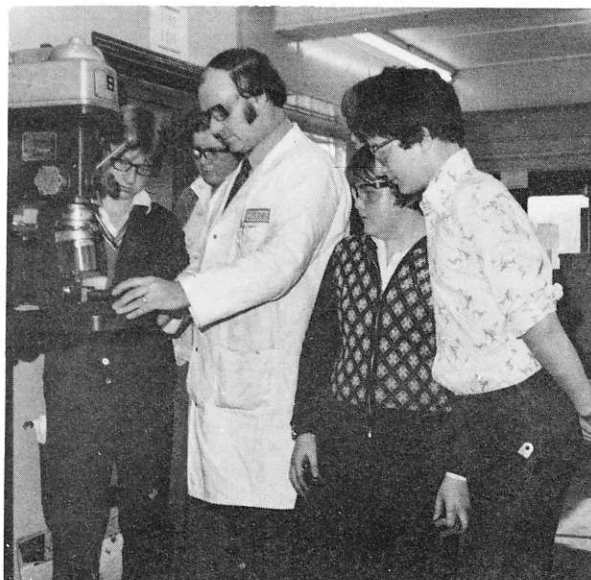
Mr. J. Candlish (left) on leaving the Company to take up a position with British Aerospace, Slough, is presented with a chess set by Mr. John Nevin, Chief Estimator. Mr. Candlish, after serving his apprenticeship at Gateshead, spent four years in the Estimating Department.



● Work Experience at Gateshead Works (above and right) — Continuing the annual practice, arrangements were made for 20 boys from local Heworth Grange Comprehensive School to spend five days each with the Apprentice Training Instructors. (Far right) Mr. D. Robinson, Senior Training Instructor, with another group of boys who spent five days in the Apprentice Training Centre on Work Experience.



A recent bride from Gateshead. Lynn Hendry is presented with wedding gifts by Mr. E. Rowe, Materials Controller. Lynn's outfit, decorated with suitable captions, was the handiwork of her colleagues in the Stores Department.



LONG SERVICE AWARDS AT CHELMSFORD



Front row (left to right): D. Davidson (27 years), I. Donaldson (27), C. C. Eves (27), R. D. Walter (28), B. C. Rawlinson (50), F. A. Robertson (29). Second row: P. J. Evans (27), G. H. Bamford (28), F. Kime (28), P. F. Brice (27), J. W. Sutherland (Managing Director), J. Eaton (27), R. P. Paskell (27), W. H. T. Ellam (27), K. Chambers (27), A. Wilson (28), R. W. Simons (Technical Director). Back row: T. Mayhew (27), R. A. Larnar (27), W. R. Fuller (27), H. J. E. W. Lawrence (27), B. Neale (Manager), H. A. Joslin (27), R. Sherwin (Resources Manager), A. Shelley (Works Manager), A. Thorogood (Supervisor), R. Knight (27), J. E. Wright (28).

Front row: (left to right) F. Cole (27 years), T. McGuinn (27), I. Newman (27), J. Wild (Manager), J. Turley (27), C. Slade (Manager), A. Paton (Manager). Second row: I. Olds (27), H. Jackson (50), W. Watkins (27), M. Pemberton (27), W. Raistrick (27), W. D. Worthy (28), M. Letch (27), J. W. Sutherland (Managing Director), E. Ball (27), D. Safe (Manager), W. Dix (27). Back row: A. Strong (27), G. Watson (27), K. Michael (Manager), J. Hawkesley (27), J. Sellers (Manager), B. Irons (28), A. Cameron (Project Controller), J. Whitlock, R. Brocklesby, A. V. G. Martin, B. Neale (Managers).



Hermes Horizons

FROM "runners-up" to the losers last year, to third place this year in the MASC Decathlon events came the Hermes Club. Not only that, we qualified to enter the Sports Day 'It's a Knock Out' competition which we won.

Judging by other activities pursued by members during the past few months, anyone could be forgiven for thinking that we are a keep fit organisation. Not only have we organised badminton, softball, fell walking, canoeing, rock climbing, pot holing, abseiling, pitch and putt, pony trekking, driving on a skid pan, skiing and punting (to mention a few!) but also theatre, proms, brewery, airshow and museum visits and film shows.

The Club is designed to cater for graduates or other young professional Marconi people at Chelmsford. Why not extend your horizons and contact Robin Smith (New Street Ext. 12) to find out what we are doing this month? We know that eventually parting with 50p for membership will be money well spent!

J. CARVER Secretary, Hermes Club



THE Hermes winning team with Decathlon and Knock-Out trophies on Sports Day. Back row, left to right: Barry Needham, Robin Smith, Ray Gallantree. Front row, left to right: Roger Barton, Alan Robinson, Adrian Farr.



BILL STANBURY RETIRES

BILL Stanbury, Chief of Planning for Marconi Radar at Great Baddow for the past 12 years, has retired after more than 30 years with Marconi. He is seen in the picture (right) being presented with a gold pen on behalf of his colleagues by Alan Thorogood, Manager of the Baddow Workshops.

Bill, who was born in Barrow-in-Furness, came to Chelmsford in 1936 and apart from two short breaks worked for Marconi since 1943. He has now left the area to live near Brixham in Devon, where much of his family lives.

Green fingers at Leicester

THE 22nd annual show of flowers, fruit, vegetables and wine presented by the Leicester Ex-Service Association and Social Club at Blackbird Road attracted a record number of entries — a total of 504!

The show is open to all GEC, Marconi and Elliott employees at Leicester, and to their families and associate members of the Social Club.

This year's winner of the Open Challenge Cup for the exhibitor gaining most points in the show was G. F. Smith. Second highest

was S. King, and third A. E. Dobbs. The Gilling Challenge Cup, an inter-departmental trophy for the department gaining most points, was won by Management.

Other winners were: Section 1 (Vegetable and Fruit) G. F. Smith; Section 2 (Flowers) S. King; Section 3 (Cookery and Home Crafts) Mrs. P. J. Bennett. In Section 4 (Wines), the W. O. P. Jones trophy was won by J. Illingworth, the A. E. Dobbs trophy by A. E. Dobbs, and the W. Burns trophy by J. Cooper.



Pictured here after the show are (left to right) Stan Heath, Martin Bennett, Mrs. J. Cooper, Mrs. P. J. Bennett, Alan Dobbs, Owen Jones (Works Manager), George Smith, Sid King and Jack Illingworth.

Gift for deaf children . . .

THE latest presentation made by the Marconi (Leicester) Employees Charities Committee to the local community was a gift of equipment for the Stoneleigh School for the Deaf. Stoneleigh is the only deaf school in Leicestershire and caters for children from the ages of 3 to 11, after which they go to schools in other parts of the country.

The equipment, which had a value of £94, consisted of a comprehensive Language Development programme developed for use with children in nursery and first year primary classes.

The Charities scheme is financed solely by weekly contributions from Marconi Radar people at Leicester. The Committee, made up of representatives from Blackbird Road and New Parks, meets each quarter to decide how the funds should be allocated among the local charities.

Pictured at the school with the headmaster and some of the staff and children are company representatives Harold Wright, George Skipp, Cliff Shuttlewood and Chris Fitzgerald.

Retirements at Writtle Road

● George Murgatroyd, of Support, S & R Sales/Contracts, retired at the end of September after 40 years' service with the Company. George is seen here (centre) with Mrs. Murgatroyd on his retirement. Also in our picture (left to right) are Mr. S. C. Church, Manager, Mr. H. O. Allen, Director of Personnel, and Miss J. Kendall, Senior Personnel Officer.



● John Turley, Quality Manager's Department, retired on October 6 after nearly 28 years' service. John (centre, right) is pictured here receiving a silver-plated tea set from Mr. F. A. Robertson, Manager.

THE PRINCE AT

Hundreds welcome royal visitor

Excitement was in the air at Writtle Road on the afternoon of Thursday October 19 when His Royal Highness Prince Charles visited the works as part of his involvement with the National Economic and Development Council. He is a member of the council's working party dealing with radio, radar and electronics.

During his two-hour tour the debonair young Prince, who sported a red rose in his lapel, was shown some of the Company's latest developments and spoke to many people about their work, while hundreds of employees had an opportunity to see him before he waved farewell.



WRITTLE ROAD





AIR CHIEF'S VISIT

● Pictured in the Martello transmitter cabin with Development Manager Nigel Ellis-Robinson (left) during their visit to Writtle Road are Air Chief Marshal Sir Douglas Lowe, Ministry of Defence, and Mr. H. W. Pout, Deputy Controller Aircraft.

CONVEX '78 HELD AT CAMBRIDGE

CONVEX 78 — this year's Conference on air traffic control — was held by the Guild of Air Traffic Controllers on October 26 and 27 at Cambridge.

As for many years now, it was attended by representatives of the Company. Marconi Radar has long been a Corporate Member of the Guild. The Company team at the conference was: Sir Ivor Broom (MRSL Consultant), Les King and Robin Webb (Sales) and Harry Cole (CSD) who also presented one of the 20 conference papers.

Lively

The conference theme was "Civil and Military ATC Co-operation." Lively discussions at the end of formal presentations left no doubt about a general conclusion regarding civil/military co-operation — there is a lot of it about — but not enough!

At such conferences we hear the user's problems at first hand — both from the platform and informally. This helps us to improve our market position and keeps the Company in the user's eye.

Harry Cole.

George Ellis leaves us

George Ellis, a well-known figure in Personnel Department at Writtle Road, has left the Company to take up another appointment. Before leaving, George was presented with a digital clock radio by Chris Horsnell, Personnel Manager, Chelmsford.

Young engineers win Cup



THE Marconi Radar team came out tops in this year's Chelmsford Engineering Society's Jubilee Cup Competition. Apprentices Robert Knapp, Michael Creasey and Christopher Searle were awarded the cup for their work on an electric damping system for wave guide switches, an idea that the Ministry of Defence have applied to patent. The Engineering Society began the competition last year and now plans to hold it annually.

Our picture shows the Mayor of Chelmsford, Councillor Mrs. Enid King, presenting the apprentices with their awards at the Civic Centre. With Mrs. King are (left to right) Tom Mayer, Managing Director of MCSL and the Society's new president, Chris Searle (18), Robert Knapp (19) and Michael Creasey (18).

Since winning the Society's award, the three young engineers have come runners-up in a regional engineering competition, TECCOM Eastern 78, with their project.

ON SHOW AT WIESBADEN

THE Company featured several items at the Military Electronics Defence Expo 78, held in October at Wiesbaden, Germany.

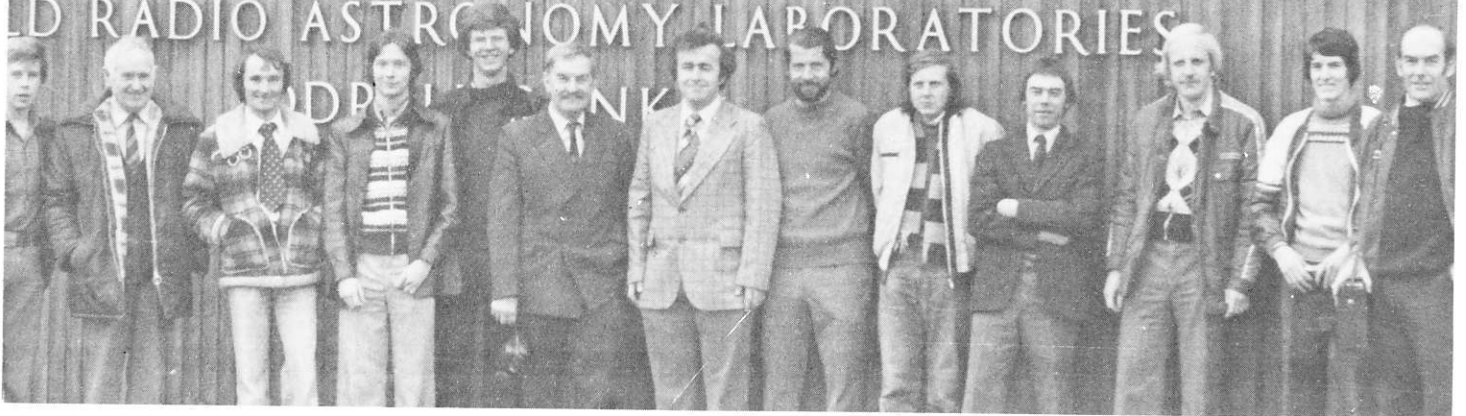
On display was a complete SFCS600 tank fire control system, designed for fitting into existing battle tanks, which significantly increases the probability of a first-round hit. Also on show was the GCE576 and GCE581 gun control equipment, already fitted as standard on the Vickers main battle tank. Other items featured included a model of the new Martello 3-D radar and a display on the Tepigen computer generated imagery system.



Lorry driver Dave Elkins installs the Company's Portakabin at the Rhein-Main-Halle, Wiesbaden.

UNIVERSITY OF MANCHESTER

RADIO ASTRONOMY LABORATORIES



VISIT TO JODRELL BANK

Thank you for Christmas

PREPARATIONS for Christmas seem to start earlier each year and as momentum gathers, and the time draws nearer, thankfulness is perhaps not our first reaction! But, as we remember the underlying meaning, that God has visited our planet and is concerned about us, this makes us stop and think. Perhaps this little poem expresses some of our thoughts.

Praise God for Christmas,
Praise Him for the Incarnation,
For the Word made flesh,
I will not sing
Of shepherds watching flocks
On frosty nights;
Or angel choristers.
I will not sing
Of stable bare in Bethlehem,
Or lowing oxen;
Wise men
Trailing distant star
With gold and frankincense and myrrh.
Tonight I will sing
Praise to the Father



Who stood on Heaven's threshold
And said farewell to His Son
As He stepped across the stars
To Bethlehem
And Jerusalem.
And I will sing
Praise to the infinite, eternal Son
Who became most finite,
A baby
Who would one day be executed
For my crimes.
Praise Him in the Heavens,
Praise Him in the stable,
Praise Him in my heart.



There will be the usual Industrial Carol Service at Wilford Parish Church, on Tuesday, 19th December at 12.35, to which everyone is welcome.



LUNCHTIME MEETINGS

The Christian Fellowship continues to meet at Writtle Road on Mondays at 12.35 in 'D' Building Reception.

A warm welcome is extended to anyone who wishes to hear more about the Christian faith and to join in discussion.



PROGRAMME

11th December. A pre-Christmas 'get-together'.

The programme for 1979 is being prepared, and will include visiting speakers from local Churches, tape-recorded talks and discussions on subjects of concern, and Bible studies. Further details from the Secretary, Doug Jones, Tel. ext. 2291.

Happy Christmas!

J. A. LANCASTER,
CHAIRMAN, CHRISTIAN FELLOWSHIP.

THE Marconi (Leicester) Wireless Group, based at Blackbird Road, recently paid an interesting visit to the Jodrell Bank radio-telescope and spent a full afternoon looking at some of the work done by Manchester University at the site.

On display were shots of the Mars spacecraft and some of its findings, a working radio-telescope which could be used by visitors, working interferometers, and other displays connected with our solar system. The group also visited the Planetarium, which analyses the night sky and gives details of many planets, stars and galaxies.

The Marconi Wireless Group meet one evening each month at the Ex-Service Association Club Rooms, Anstey Lane, Leicester (near the Blackbird Road factory). Details are posted in

advance on the Company notice board. Activities include amateur radio, electronics, television, demonstrations and films.

Tower

● Pictured outside Jodrell Bank, with the aerial tower in the background, are (left to right): D. W. Swift, C. Murch, J. A. Sketchley, G. Rockett, S. Day, A. Hoscroft, I. Wightman, I. Banks, D. Vernon, M. Martin, M. Hewson, A. Bennett and M. Bennett.



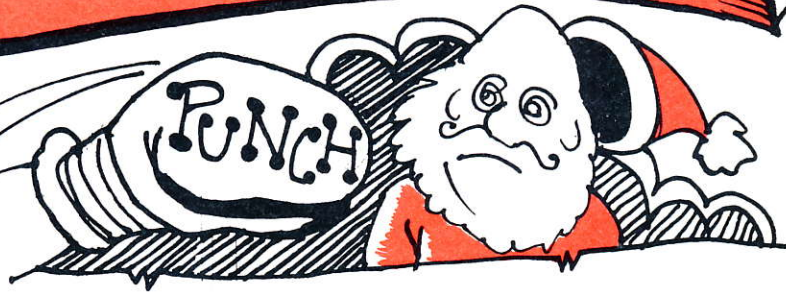
New shop off to a good start

WRITTE Road's new shop in the centre foyer of C Building was officially opened by Sue Thorn (Miss Marconi Radar) recently, and went on to deal with some 300 customers on its first day!

● Our picture shows Sue (left) receiving a small gift from Mrs. 'Mo' Clamp, the shop supervisor, at the opening ceremony. In the background are some of the ladies of Purchasing Department who gave valuable help during the preparations.

Christmas

Quiz



Names

1. The wife of a famous artist died as a result of catching cold, after posing in the bath for her husband. Who was the artist?
2. What have William I of Ireland, William II of Scotland, William III of England and William IV of Normandy got in common?
3. Which horse was the first Derby winner?
4. Who was the original star of the long-running play "The Mousetrap"?
5. Which English Queen never set foot on English soil?
6. What are the names of the stretches of water separating Ireland from the closest parts of (a) England (b) Scotland (c) Wales?
7. When Army pay books were first issued in 1815, what name was filled in to show how the book should be signed?
8. Who was the first man to orbit in space?
9. Who was the first woman to orbit in space?
10. Who were the first men to land on the moon?

Sayings

Who said, or wrote:

1. Christmas won't be Christmas without any presents.
2. I will never desert Mr. Micawber.
3. It's being so cheerful that keeps me going.
4. A thing of beauty is a joy for ever.
5. Guns will make us powerful; butter will only make us fat.
6. Yaroooh!
7. Yo ho ho and a bottle of rum!
8. A line is length with breadth.
9. What is our task? To make Britain a fit country for heroes to live in.
10. ... and so to bed.

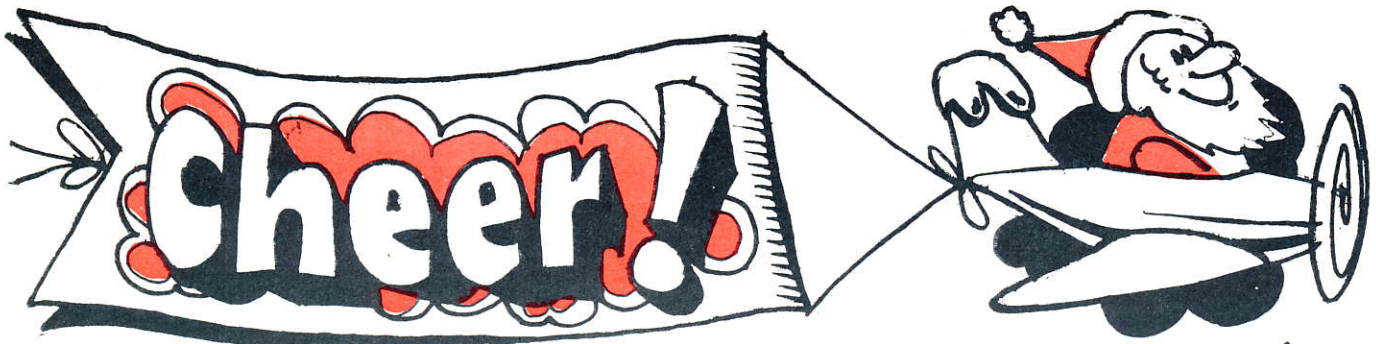
General Knowledge

1. Soda, Carbon, Calcium, Cobalt, Gold, Lithium, Radium, Vanadium, Ozone and Potash. These are chemicals — but what else have they in common?
2. Is a prairie oyster a fish or a small animal?
3. How long is a nail?
4. What has more legs than a centipede?
5. Krs, Crn, Srdj, Grn, Trstij, Bra, Strbr, Vrb, Krn — what are they?
6. What is the difference between a Kentish Man and a Man of Kent?
7. Where would you be most likely to find a glutton?
8. Who was the father of Neptune?
9. Who left his fortune to found a new alphabet?
10. What is the origin of the word Radar?

Sport

1. The infield of a baseball ground is: oblong, square, triangular or diamond in shape?
2. In what sport does the winning team move backwards?
3. How many men are there in an ice-hockey team?
4. Is the Oxford and Cambridge boat-race rowed upstream or downstream?
5. What game is called the 'game of kings'?
6. What is a half nelson?
7. To what sport or game do each of the following apply, Luff, Huff, Ruff, Buff?
8. Who is commonly credited with inventing Contract Bridge? When and where was this?
9. In tennis, what is the ruling if an object (such as an animal or ball) moves along or above the surface of the court and is struck by the ball in play?
10. In cricket, can the square-leg umpire call 'no ball'?

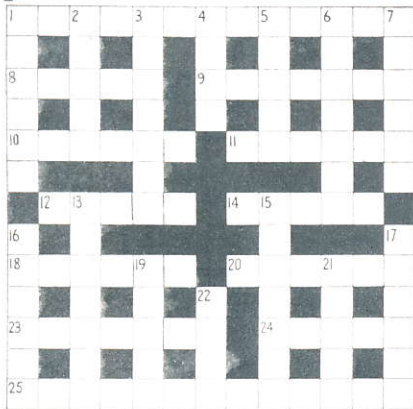
(Answers on page 18)



CROSSWORD

ACROSS

- The glance that made Rose dry up! (9, 4)
- The glare has upset him. (5)
- Prudence is a card! (7)
- Kind of tune a music publisher won't let slip through his fingers? (6)
- Try hard to arrange a test round about four. (6)
- Bob got an ice-cream and a little cake. (5)
- Throw a dance. (5)
- Singer who's just as good as a trio? (6)
- A composer and the land he comes from. (6)
- After the giant I took on a fairy. (7)
- I had played the first card but it didn't work. (5)
- A sad farming story? (9, 4)



DOWN

- With difficulty, pull something out of the tool-bag. (6)
- A more than fitting description of a drunk. (5)
- The organ at that time was made of clay. (7)
- A short distance from Winchester. (4)
- Note the relation is very thin. (5)
- View the circle on the wing. (7)
- German children are less cruel. (6)
- He'll do! (7)
- Going off and making a will. (7)
- Treatment for a bad cut or a pain in the side. (6)
- Promise you got from uncle? (6)
- It's the language of fish, love. (5)
- She could be the ideal woman. (5)
- Do the Italians exclude one from it? (4)



Be your own WEATHER MAN

SOME OF THE TRADITIONAL WISDOM OF THE COUNTRYSIDE

 Rain before seven,
 Fine before eleven.
(TRUE. Continuous rain seldom lasts more than five hours over most of England).

 Between one and two
 See what the day will do.

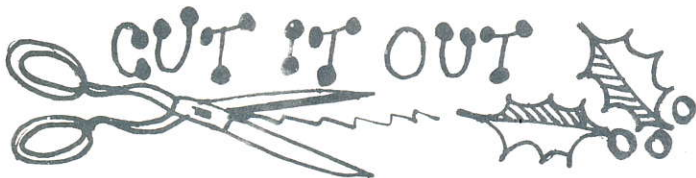
 A green Christmas makes a fat churchyard.
(UNTRUE. The death rate is higher in a cold winter).

 February, fill dyke;
 March, lick it out.

 So many fogs in March you see,
 So many frost in May will be.
(OFTEN TRUE. In London there are four foggy mornings in an average March and four nights of ground frost in an average May).

 If the oak be out before the ash
 The summer will be but a splash;
 If the ash be out before the oak
 The summer will be all a soak.

 When the locks of the Navajos turn damp in
 the scalp-house, surely it will rain.
(Red Indian weather lore. In England, seaweed may be substituted for scalps).

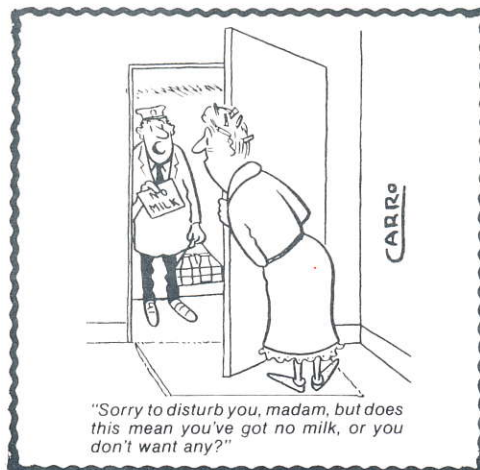


Here is what everyone has been waiting for. At last there is a sufficient quantity to meet the demand. These tuits have been hard to come by — especially the round ones — so cut it out and keep it carefully.



This indispensable item will help you become a much more efficient worker. For years people have been saying, "I'll do that as soon as I get a round tuit". Now you have a round tuit of your very own — so good luck!

(Reprinted by courtesy of PROBE, newsletter of Marconi Research Laboratories).



"Sorry to disturb you, madam, but does this mean you've got no milk, or you don't want any?"



Above: Vice Admiral Sir Philip Watson with prize-winning apprentices after the presentation.

Below: Apprentices Nick Alder and Paul Frost presented Sir Philip with a digital clock in the form of an 800 series radar.



Leicester apprentice awards

The Annual Parents Evening and Apprentice Presentation Ceremony was held at Blackbird Road on Friday, November 24th.

The training centre and factory were open to parents and visitors for escorted tours in the early evening, followed by the presentation of awards in the canteen. The prizes were presented by Vice Admiral Sir Philip Watson.

Managing Director John Sutherland welcomed parents to the presentation and said that

there had been an increase in the number of trainees recruited, with over 230 apprentices representing 12 per cent of the workforce at Leicester currently serving a craft, technician, commercial or student apprenticeship.

The prize list was as follows:

Apprentices — Final Year: Student Apprentice of the Year, Alan Jones and Michael Price (joint award); Technician Apprentice of the Year, Ian Mauger; Craft Apprentice of the Year, Keith Ball; Commercial Apprentice of the Year, Julie Vaikson; Best Apprentice through the Drawing Office, John Dawson.

Special Prizes: Special award for sustained effort throughout training, Diane Stacey; Leicester Association of Engineers, Stephen Allison.

1st Year Training "Off the Job": Most promising young Mechanical Craft Apprentice, Bryan Parkes; Most promising young Electrical Craft Apprentice, John Bateson; Most promising young Technician, Stephen Allison.

Adult Training: Best trainee through Electrical Operator Training School, Talena Hutchings.

Successful year for golfers

The Marconi (Leicester) Golf Society held their annual buffet dance at Birstall on November 17. During the evening the Captain, David Tomlinson, presented the prizes to the 1978 Society Competition winners. These were:—

Annual Day Out: Singles Stapleford, Society Champion — John Milne. Lowest gross score — Len Cross. Pairs Stapleford — Cyril Smith and Chris Crowther.

Summer League/Knock-out: Pairs match play winners — Jim Vallett and Mike Crook.

The Society have had a successful year, beating teams from Brush Electrical, Rolls Royce, AEI Lincoln, and RAF North Luffenham. It should be noted that representatives from MRSL also had a notable success against their colleagues from Chelmsford.

The Annual Day Out was held at Willesley Park Golf Club at Ashby in August and was a great success. About 40 members made their way twice round this tricky course during the day and all sat down to an evening meal in the clubhouse in the evening.

Plans are well under way for the 1979 Society programme, which should be of interest to golfers whatever their standard. If you are not already a member, you will be very welcome.



The Marconi (Leicester) Golf Society prize winners (left to right): Chris Crowther, Len Cross, David Tomlinson, John Milne, Jim Vallett and Mike Crook.



Chelmsford bowlers' social evening

Over 200 bowling men and women gathered at the Marconi Club, Chelmsford, on Saturday, 25th November, to honour their individual and team champions for the 1978 season.

Bowls Club chairman Danny Branchflower, in his welcoming speech, introduced the special guests, Sir Robert and Lady Telford, Nancy Howlett and Chelmsford and District Bowling Association President Phil Townley, and then went on to thank the committee, the members and members' wives who had helped to make the past season most enjoyable and very successful.

Sir Robert with Danny as M.C. then presented the competition winners and runners-up with their cups and trophies. Nancy Howlett made the annual presentation of the 'Percy Howlett' Cup to the Club Pairs winners and consolation trophies to the runners-up.

The ladies who work so hard throughout the season preparing nourishment in the club house were each presented with a specimen rose vase and a box of chocolates.

With congratulations still flying in all directions, Len Ebbage and his Show Band struck up the first dance to get the evening's entertainment under way. Later we were treated to 'Cabaret Time' with the Mardell Brothers, and Ted Durante and Hilda.

To round off a very pleasant evening, 20 or so lucky people won some very nice prizes in the Club raffle, and by an interesting quirk of fate Lady Betty managed to win the desirable booby prize!

Paddy Flindall,
Marconi Bowls Club.

● Pictured with their Cups and Plaques for the 1978 season are (left to right): J. G. Harrison (Secretary); J. Dixon (Chairman); H. Bright; J. Shaftoe; G. Outterside; W. Dudgeon; A. Watson; J. Mulholland (Team Captain); A. Adamson; J. Greagan; R. Oliver; B. Robson; J. Oliver; G. Gordon.

GATESHEAD BOWLERS STILL ON TOP

The Marconi (Gateshead) Bowling Club have gone from strength to strength during the 1978 season.

Their successes have included the following:—

Winners—Durham Association League 'D' Division

Winners—South Tyne Association E.B.A. League Division 1 and Cup

Winners—Durham Association — John Black Challenge Cup

Winners—Felling Association — George Laing Cup

Winners—Felling Association — Spencer Gilroy Cup

Winners—Felling Association — Tom Sisterson Triples Cup

Winners—International Paints 'Open Pairs' Cup

Winners—Crawcrook Open Single Cup

Runners-up— T. D. Marshall Premier Cup

Runners-up—Felling International Open pairs Cup

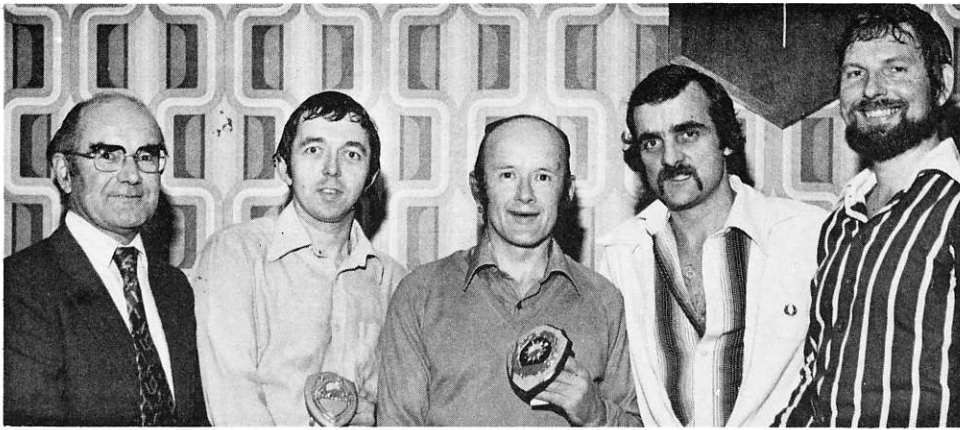
Runners-up—Felling Association League.

Happy event for Penny

★ Our congratulations to Penny Steele, late of Customer Systems at Writtle Road, who has recently presented her husband with a little girl, Lisa Michelle.

Penny is seen here with husband Eric and some of her colleagues at a farewell ceremony before leaving the Company in August.





Seen here after the Leicester Squash finals are (left to right) Ron Foulkes, Steve Wood, John Milne (1978 Champion), Brian Highton and Dave Sharp.

LEICESTER'S FIRST SQUASH CHAMPION

ON September 22, GEC-Leicester Squash Club held the finals of their first annual championship at the West Leicester Squash Club. The early rounds had started in July with a total of 54 entries.

After a close and exciting contest, John Milne of Marconi Radar became the 1978 champion, beating Steve Wood of GEC-Elliott by three games to one. The third place play-off between Dave Sharp of GEC-Elliott and Brian Highton of Marconi Radar was won by Brian.

Champion John received the new GEC Sports and Social Club Shield, which he will hold for a year, plus a handsome replica and a voucher for £10 to be spent at a local sports shop. The runners-up received a shield and a voucher for £5, and there were vouchers for £3 and £2 for the third and fourth places.

The prizes were presented by Ron Foulkes, Managing Director of GEC-Elliott Process Automation, himself a keen squash enthusiast.



Fellowship for Jim

JIM Cooling, a well-known figure in Control and Simulation Division at New Parks, recently left the Company to become a Research Fellow at Loughborough University of Technology. Jim, who was born in Dublin, joined the RAF from school and then completed two years as an electrical instructor before entering university, where he obtained a B.Sc. (Hons.) degree in electrical and electronic engineering. He is a member of the Institution of Electrical Engineers.



APPRENTICE OF THE YEAR

CONGRATULATIONS to Stephen Allison, a second-year technician apprentice at Blackbird Road, who has won the Apprentice of the Year award presented by the Leicester Association of Engineers.

Stephen is seen here (centre) with Albert Turner, Chief Instructor at Blackbird Road (left), receiving his award from Mr. C. J. Beck, President of the Association. This is the second time the Leicester factory has won the award in three years.

Christmas Cheer!

QUIZ PUNCH ANSWERS

(First see Page 14)

General Knowledge

1. All are towns in the U.S.A. 2. It's a cure for the morning after the night before — a raw egg in Worcester Sauce. 3. It is an English unit of measure equal to 2 1/4 ins. 4. An earthworm — it has nearly 1200 legs. 5. Towns in Yugoslavia. 6. A man (or maid) of Kent is born east of the Medway; a Kentish man (or maid) is born west of the Medway. 7. A glutton is an animal found in Alaska and North America — it has an enormous appetite. 8. Saturn. 9. George Bernard Shaw. 10. Radio, Angle, Direction and Range.

Sport

1. Square. 2. Tug-of-war. 3. Six. 4. Upstream. 5. Chess. 6. A wrestling hold. 7. Sailing, draughts, bridge, blind man's buff. 8. Harold S. Vanderbilt — in the Atlantic Ocean in 1925. 9. Play a let. 10. Yes — if he considers that the bowler is throwing.

Sayings

1. Jo (in "Little Women" by Louisa M. Alcott). 2. Mrs. Micawber (in "David Copperfield" by Charles Dickens). 3. Mona Lot (in "Itma"). 4. John Keats ("Endymion"). 5. Hermann Goering. 6. Billy Bunter (in the stories by Frank Richards). 7. Long John Silver (in "Treasure Island" by R. L. Stevenson). 8. Euclid. 9. David Lloyd George. 10. Samuel Pepys (in his Diary).

Names

1. Dante Gabriel Rossetti. His wife was Elizabeth Siddall. 2. They were all the same man. 3. Sir Charles Bunbury's Diomed, in 1780. 4. Richard Attenborough. 5. Queen Berengaria of Navarre, wife of Richard I. 6. (a) The Irish Sea (b) North Channel (c) St. George's Channel. 7. Tommy Atkins. 8. Yuri Gagarin. 9. Valentina Tereshkova. 10. Neil Armstrong and Edwin ("Buzz") Aldrin.



CROSSWORD ANSWERS

ACROSS

1. WITHERING LOOK. 8. ELGAR (anag.). 9. CAUTION. 10. CATCHY. 11. STR-IV-E. 12. S-CONE. 14. FLING. 18. TREBLE. 20. HANDEL (anag.). 23. TITAN-I-A. 24. I'D-LED. 25. HARROWING TALE.

DOWN

1. WRENCH. 2. TIGHT. 3. EAR-THEN. 4. (W)INCH(ester). 5. G-AUNT. 6. O-PINION. 7. KINDER. 13. CHEATER. 15. LEAVING. 16. STITCH. 17. PLEDGE. 19. LING-O. 21. DELIA (anag.). 22. BAR-I.

Encompassing

● AT our Blackbird Road factory we have Sid NORTH (Operation Planning), Brian SOUTH (Production Control), Joe EAST (Inspection) and Dan WEST (Contracts). No wonder they say the sun never sets on Marconi Radar's products.

DAFFY-DEFINITIONS!

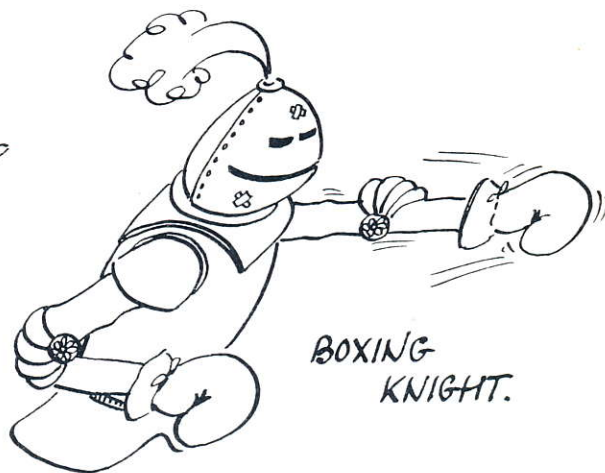
Our thanks to Bill Raistrick, Publicity Department, Writtle Road, for this hilarious contribution.



COAL BUNKER.



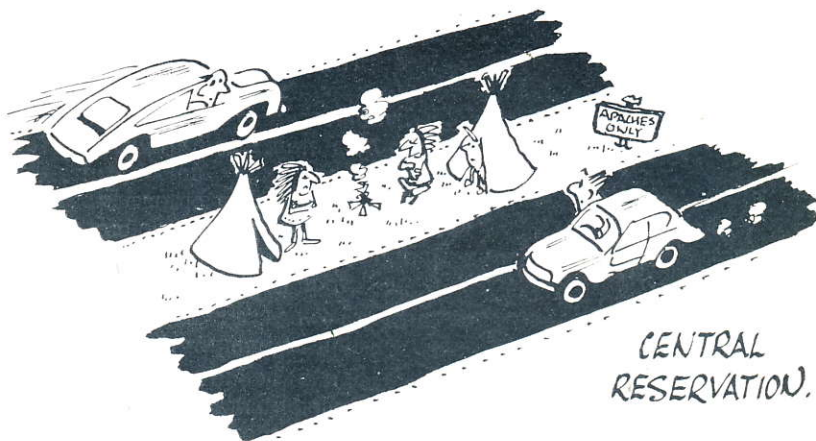
CHRISTMAS EVE.



BOXING KNIGHT.



HEAVY PLANT CROSSING.



CENTRAL RESERVATION.



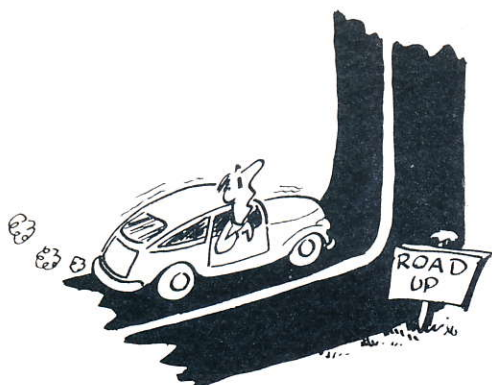
PRIVY SEAL.



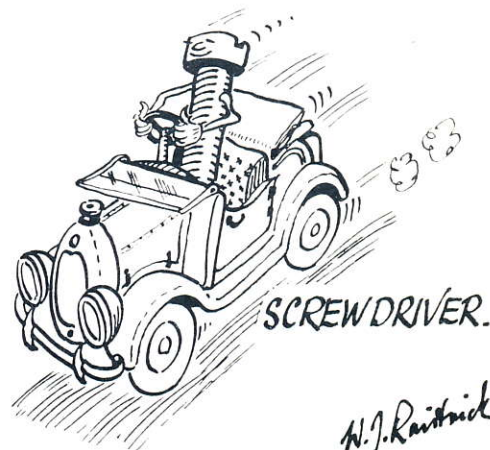
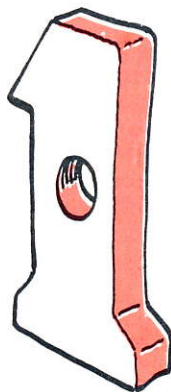
ROCK GROUP.



DECODER.



HOLE IN ONE.



SCREWDRIVER.

H.J. Raistrick



The New Parks 'A' team with their trophies after finishing runners-up in the GEC Angling Championships. Bill Crouch of Radar D.O., winner of the individual title, is on the extreme right.

TOP CATCH!

THE annual GEC Angling Championships took place in October on the Sibsey Trader, near Boston in Lincolnshire. A total of 33 teams competed from GEC sites throughout the country.

It was a successful event for the New Parks 'A' team, as they finished runners-up in a very close finish. The team is drawn mainly from GEC-Elliott Process Automation, who share the New Parks site with the Company, but an outstanding performance by Bill Crouch, of the Radar D.O., gave him the individual title out of 297 competitors with a top weight of 12lbs. 1½oz. Bill collected a prize of £100 and the team £72.



The Marconi team. Back row (left to right): Colin Miles (Baddow W/Shop), John Davis (W.R.W. Tool Room), Steve Batchford, John Hunter, Danny McKinley (Rivenhall), John Everard (Capt.), Norman Atkinson. Front row: Martin Storry, Steve McGuinness (Mech. D/O, W.R.W.), Norman Swatman (Radar Accounts), Ray Blackburn, John Rogers.

CHELMSFORD FOOTBALL

Don't forget to write!

CAN you write (or draw, or photograph) something that would interest the readers of ECHO? News items, articles, pictures, letters — long or short, serious or light-hearted — are always welcome. Copy date for the next issue is February 9.

Your contact is W. A. Smith, Editor ECHO, MRSL, New Parks, Leicester. Tel. (0533) 871331, ext. 313, Int. 577. Or material may be handed to Christine Merrill, Assistant Publicity Officer, at Writtle Road.

THE MARCONI Chelmsford Inter-departmental Football team had another successful representative match when they overcame a very good Ford Motor Company Inter-departmental representative side by three goals to two at Chelmsford.

An early goal was scored by Johnny Davis of the W.R.W. Tool Room, who opened the scoring after only four minutes' play with a clever chip over the advancing keeper. Two further goals were added, one in each half, by Ray Blackburn of E.E.V. Ford replied with two goals in the second half, one a penalty.

The team was then entertained by Southend Borough Combination at the Southchurch Park Arena on November 2. This was a return match, the teams having drawn 3-3 in February of this year at Chelmsford.

Southend went ahead in the first half and then scored two more goals after the interval, but the last quarter of the game saw a continual barrage of shots from the Marconi team which finally resulted in a well-taken goal by Danny McKinley. Danny works at the Rivenhall Test Site.

So the match was lost 3-1, but as the opposition were of a very high standard and had recently returned from a successful tour on the Continent, the Marconi lads had done very well.

They have a chance to get back to the winning trail when they visit the Braintree and North Essex Sunday League for a representative match on November 28.

PHIL CHAMPION
Competition Chairman