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THE QUEEN'S AWARD TO INDUSTRY
1966 1967 1968

Marconi News

BIG ATTACK ON MARKET

The most intensive effort for the sale of integrated circuits ever launched in the U.K. is being mounted by Marconi-Elliott Microelectronics, following the recent establishment of a major new marketing team. Five managers responsible for different market areas have been appointed, responsible to **K. Jones,** marketing director.

S. Forte, formerly applications manager of Marconi Microelectronics, has been appointed manager, Custom Integrated Circuits, and heads a sales team servicing system manufacturers.

B. Preston is appointed manager, Applications Engineering, with a team of engineers experienced in both circuit design and systems.

Three sales managers will cover the marketing of the standard Marconi-Elliott product range.

D. Steel as manager, Computer Product Sales, will deal with the major computer manufacturers outside the English Electric Group, and retains responsibility for the marketing of microwave devices.

C. Yandell, as manager, Industrial Sales, supported by a large field force, will service all customers in the military, industrial and consumer markets.

M. Ball is appointed manager, Group Sales, and will co-ordinate the requirements of all English Electric Companies. For the first time, he will have liaison engineers working within these Companies at the key establishments.

J. Watts is appointed marketing services manager, responsible for providing all supporting services including market research and market analysis, and for liaison with Publicity Department on advertising and publicity. He will be responsible for the Witham and Glenrothes sales offices.

Further senior appointments are to be made in the near future.

DISH PROTECTION

Riggers erecting a lightning conductor at the top of the tropospheric scatter dish on the roof of Marconi House.

MEDALS FOR MARCONI IN MEXICO

Marconi equipment played a key role in the tremendous television coverage of the Olympic Games at Mexico City. Over twenty of our Mark VII cameras were in use at the Games producing both live and recorded colour television programmes, the operation being supported by a team of engineers from the After Sales Section of Broadcasting Division.

Colour for Tyne-Tees

£100,000 Conversion Contract

The black and white Marconi outside broadcast vehicle of Tyne-Tees Television is to be converted early next year to full colour operation by engineers of Broadcasting Division.

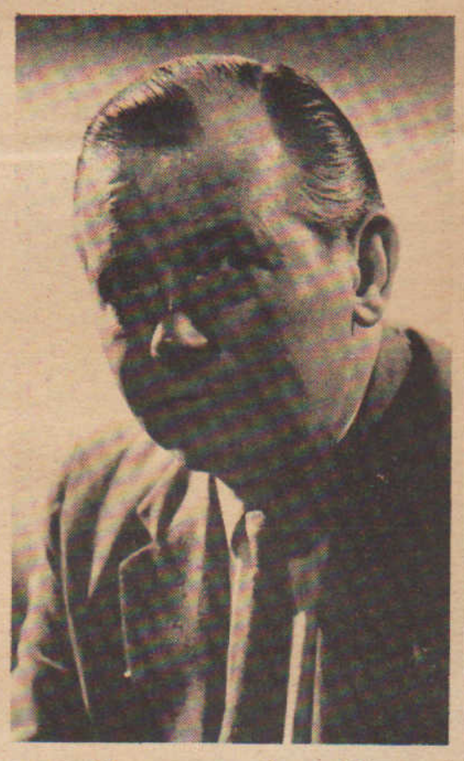
Tyne-Tees, who cover North East England and who are major users of Marconi television equipment, took delivery of the O.B. unit in October, 1967. The van was originally supplied to a design based on the premise that a colour conversion would follow.

The four existing Mark V black and white cameras will be replaced by a similar number of colour camera channels each comprising a Mark VII camera, camera control unit and operational control panel.

THE MERGER

A message from the Managing Director

Moves to bring about a complete merger of GEC and English Electric, announced at the beginning of September, are going ahead and are timed to be completed before the end of the year. The procedure is prolonged because of the immense amount of work involved and legal obligations.



The interests of employees has been given much thought and in this respect two important events have occurred recently: the managements of both GEC and English Electric have given assurances to the Government that they will confer with Trade Unions and Government departments about employment matters arising from the merger; Sir Jack Scamp, director of GEC, and G. A. Riddell, joint managing director of English Electric, have already met Union leaders to tell them what has happened so far and to hear their views. Further meetings will take place.

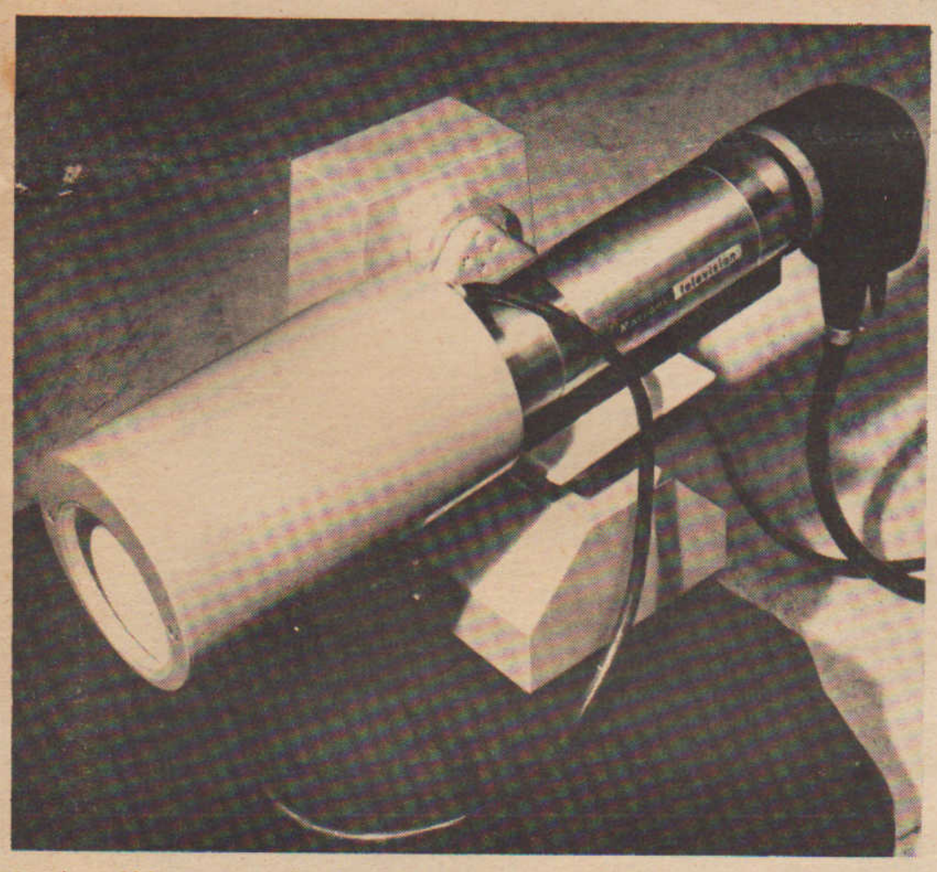
Speaking at the recent Labour Party Conference the Prime Minister said he knew industrial reconstruction on such a scale caused grave anxieties. But he pointed out that many of the new industrial giants developing in private industry were the result of deliberate Government purpose to achieve industrial reconstruction leading to larger integrated units to create industrial efficiency, based not only on size, but on an associated management revolution. He emphasized the motives of efficiency and export power.

Mr. Wilson said he knew re-organization meant change, and change was painful. He said "re-structuring, whatever the short-term effects, is the best means, through increasing our competitive power, of providing real security for workers in the future."

He reminded the Conference of a remark made by Mrs. Barbara Castle that the question was not how many people might lose their jobs if mergers took place, but how many more would lose any hope of a job if the Government did not press on with the re-structuring of industry.

The name of the new holding company now being created is The General Electric and English Electric Companies Limited, but it is the declared intention to continue trading using such well established trade names as AEI, GEC, English Electric, Marconi, etc.

Fighting Fires by Remote Control



Mark V321 camera fitted with a neoprene boot and zoom lens cover for water protection.

Firemen in Newcastle and Gateshead will soon be able to survey a burning building for signs of life without risking life and limb.

A Marconi 321 camera, delivered to Newcastle and Gateshead Fire Service by Electro Optical Systems Division, is to be installed on an aerial platform and will relay bird's-eye-view pictures of a disaster area to a 23 inch monitor in the fire-engine. Hoses can then be directed by remote control, and the firemen need no longer risk their lives unnecessarily.

Only the Marconi equipment could fulfill the stringent requirements to operate under conditions of extreme heat and withstand the onslaught of water under high pressure.

The scheme for the television surveillance of fires is the brain-child of the present chief fire officer of the area, and is the first development of its kind in Europe.

Typhoon strikes Earth Station

The 120 m.p.h. winds of Typhoon Shirley, which passed directly over Hong Kong on August 12, struck hard at the satellite earth station under construction on the Island. The main tower was stripped of all its scaffolding, the cement hoist was twisted and buckled to the ground and damage was caused to the main building.

Fortunately the damage was not lasting and construction was back to schedule a week later.

The station is one of two currently being made by the Company for Cable and Wireless Ltd. The other will be installed at Bahrein. The tower was supplied by Marconi but no electronic or antenna equipment was at Hong Kong at the time of the typhoon nor were any Marconi personnel there.

NEW COMPANY

Babcock & Wilcox, English Electric, Taylor Woodrow Construction, the U.K. Atomic Energy Authority, and the Industrial Reorganization Corporation, are to establish a new company to design and construct nuclear reactors and power stations at home and abroad. The company will be one of two envisaged by the Minister of Technology. It will take over the business of Nuclear Design and Construction Ltd. and will bring together the appropriate reactor design and construction capabilities of the UKAEA and of NDC. It is anticipated that the CEGB will place with the new company the order for the £91 million nuclear power station at Hartlepools if current talks with NDC are successful.

The chairman will be Mr. Hector McNeil and the headquarters at Risley, Leicestershire.

I.R.I AT WITHAM

Members of the Istituto Ricostruzione Industriale, a body which finances Italian industry, with I. G. Cressell, deputy managing director of Marconi-Elliott Microelectronics, extreme right, at Witham, which they visited last month.

Highlights at Johannesburg

Left to right: J. Pool, Marconi exhibition manager; W. Beeston of the Central Office of Information, who were responsible for the British pavilion, and R. J. Williams, managing director, Marconi (S.A.) Ltd.

The most spectacular of the five full-scale working equipment demonstrations which highlighted the Marconi stand at the 1968 Electrical, Electronic and Nucleonic Engineering Exhibition (ELECTRA) in Johannesburg this October was a demonstration of design automation, industrial and traffic control and medical surveillance featuring a Myriad II computer and two of Automation Division's X200 graphical/tabular displays. It showed, for example, how the engineer of the future will be able to reduce dramatically the time he takes to design equipment or buildings, and illustrated the great contribution that computer-based systems will make in the field of medicine. A number of alternative input systems, including a light pen and tracker ball, were used to feed information into the computer via a display.

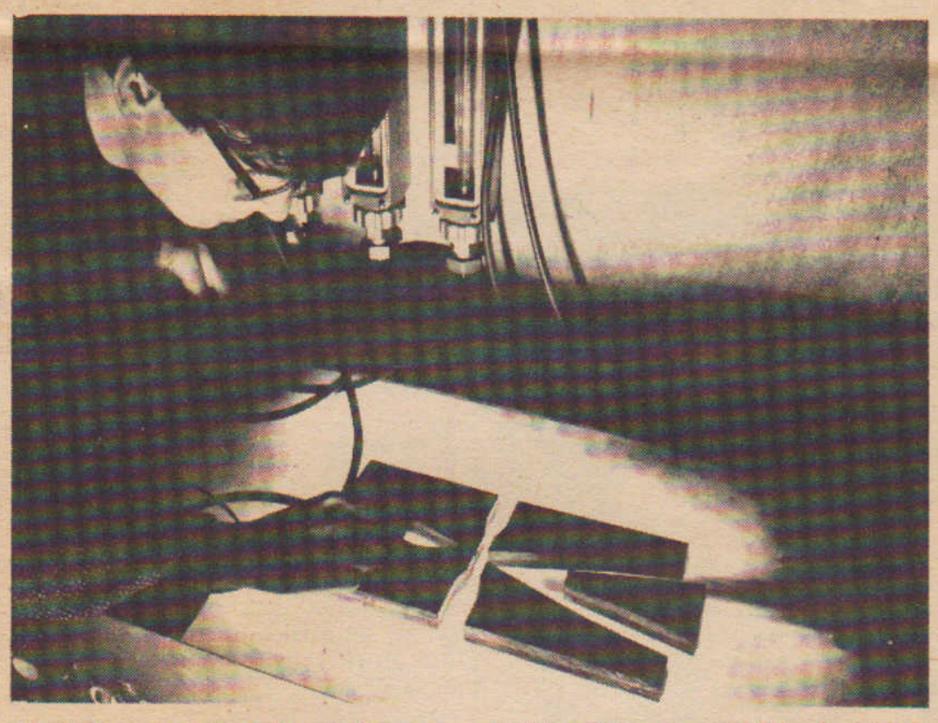
Line Communications Division demonstrated their advanced Marconidata communications system, and Aeronautical Division had a working display of their direction finder, the AD370 currently in use in hundreds of aircraft throughout the world.

Electro Optical Systems Division, with the accent on educational and industrial techniques, had a working demonstration of their 322B and 321 cameras.

A representative selection of specialized electronic components, scale models of the S600 series mobile radar system and Eddystone Radio's range of professional radio receivers, completed the Marconi contribution.

Our stand was designed and built in England by the Exhibition Section of Publicity Department. It was the largest stand in the British pavilion and the many working demonstrations attracted large numbers of specialist engineers.

Fluidics at the Farm



Work is currently being undertaken at the Mechanical Engineering Research Laboratory at Guy's Farm, Writtle, on structural analysis and aerodynamic loading of space and radar aerials, metrology, design of precision mechanisms, control engineering and applications of fluidics.

In the picture, a model of a basic fluid logic unit on a water table is being used by research engineer Barry Bryan to illustrate the principles of this new form of non-electronic computery which would have important applications in the control of machine tools, or even radar aerials.

Rivenhall Solves Stripping Problem

A difficult problem involved in stripping the insulation from the inner core of coaxial cables has been solved by the cableform section at Rivenhall. This insulation is irradiated polythene and the inner wire is 0.0065in. diameter, silver plated, copper clad steel, and any rucks or damage render the wire unusable.

The tool used is an Elora Wire Stripper which consists of a number of spring leaves which, for larger wires, conform to the shape of the wire. In this particular case the wire is so thin that it falls into the clearances between the leaves which therefore remove the insulation without damaging the inner core.

The ability to strip this "difficult" cable has made it worthwhile to obtain a quantity of these wire strippers specifically for this job.

* * *

U.S. factory sales of CCTV and supporting equipment increased by 3.3% in the first half of this year.

Extension of Atlas

Anyone, anywhere with a telephone will soon be able to submit data for processing to a computer in London's Bloomsbury as easily as if he were in the room with it.

This development is the result of a contract signed by the University of London Atlas Computing Service, with Line Communications Division, for the provision of additional Marconidata terminals to extend the facilities for remote access to the Atlas computer. The customer simply needs to fit suitable terminal equipment on his own premises with a Marconidata error correcting terminal to enable him to transmit high speed data error-free into the computer.

The contract will make the services and facilities of one of the country's largest service bureaux available to an even wider range of customers.

The new terminals, a Marconidata H6010 series transmitter and receiver, will be located at the Atlas Computing Service premises in Gordon Square, Bloomsbury.

In the first instance the Marconidata terminals will be used in an off-line mode to provide a very rapid turn-round of jobs. A priority service will be available if required. In due course the terminals will be connected on-line to the Atlas, and data transmitted by way of the Marconidata link will be fed directly into the computer.

ACS was among the first bureaux to provide a commercially available service by means of on-line data links. The ACS Datalink service has now been in operation for 3½ years with an average turn-round time of 10-15 minutes, and it has now been used by industry, commerce and public authorities for almost every kind of calculation and data processing problem.

TV FOR MIDWIFERY

Improved care of patients and the nursing and midwifery training of undergraduates and postgraduates made easier. These are the benefits brought to Sheffield's University Department of Obstetrics and Gynaecology and Jessop Hospital for Women, through the recent installation and commissioning of a £4,000 closed-circuit television system by Electro Optical Systems Division.

The television camera, with a video tape recorder and its own monitor, is fully mobile and can be used wherever electrical power is available. In addition the five labour wards, two operating theatres and lecture theatre projection room are all linked by a vision, sound and talk-back system so that recorded or live programmes can be shown in the lecture theatre.

The V322B camera used in the system has been designed specifically to meet the needs of educational closed circuit television. It is equally suitable for small studio applications, and many other closed-circuit requirements. For the Jessop Hospital application the camera is fitted with a tripod and a 4-1 zoom lens.

Profile

Vic Angier

Order Controller, Equipment Division.

"You saw the job through, that was the beauty of it"

"We really ate through bootleather in the old days," says Vic Angier. "One morning back in the early thirties, I strapped a pedometer on my leg, just out of interest, when I had finished work it registered 13 miles. That was exceptional, but I reckon I walked 30,000 miles in my first 20 years."

Vic is the last of the early progress chasers, men who, literally, chased production jobs through the works, from the time an order was received until the finished job went out.

Nowadays he is mostly behind his desk, the telephone and typewriter doing the job his feet once did. Today his work is called order controlling and the department is over 90 strong. When Vic came in 1928 it was called Progress and he made the team up to four.

In his forty years of seeing the job through he has served under nine managers and twelve departmental heads, and has seen many changes in the growth and development of production planning. He has shown many others how to chase progress. Our managing director, Mr. Telford, is one who learnt the ropes of progress chasing working alongside Vic Angier.

He looks back to the hectic early days with affection, "you saw the job through then, from start to finish and watched it grow — that was the beauty of it. Today you have to rely on a lot of other people."

The first equipment for blind landings and the world's first tape recorder were two of the Marconi 'firsts' seen through by Vic. "The tape recorder was enormous thing the size of an office desk, with huge aluminium drums." But his speciality was aircraft equipment and one early job he remembers was the AD6M transmitter receivers being made for the pioneer civil airlines. The AD6Ms were supplied to De Havillands and to Hillman Airways which operated from Abridge and flew a service up the East Coast. "The sets were remotely controlled by Bowden cables, hefty things made up of some twelve feet of twisted span, which were installed in the tail of the plane behind the pilot. "They weren't like today's massive panels, just an aluminium box on rubber suspensions. There always seemed to be a panic on Fridays, with an engineer at Croydon wanting a power cable or a fairlead tube.

"These tubes went through the aircraft bottom and hung a hundred feet down, the aerial was lowered through them for transmitting and receiving. When he'd finished the pilot wound up the fairlead with an aerial winch."

In the late thirties, as war approached, the pressure and the size of the department increased. By 1938 there were more than a dozen progress chasers, and with the start of the war women were employed on the job for the first time.

His own field expanded beyond aeronautical equipment to cover the whole range of wartime requirements. "The pressure was really on during those five years. But then it always has been, that's what our job is about."

In the years since 1945 the volume of work and the pressure have continued to grow. The system has changed too. What was once the one production department has now become two divisions. Equipment and Fabrication.

The work of the progress chasers, piloting jobs from the initial drawings through the works and liaising with suppliers, is no longer the work of individuals but of teams. In all these changes Vic Angier's long experience has proved invaluable.

"It would not, of course, be possible to work today as we used to, but I do miss the old, personal, family atmosphere a bit."

His conscientiousness—since the day he joined the Company he has always been at work by 7.15 in the morning—his ebullient personality and his love of his "way of life" make Vic Angier the ideal man for his job.

Born and bred in Chelmsford, he first became a solicitor's clerk, but, "my life really started at Marconi's. There have been good times and bad, but I have always enjoyed my work and that is what matters."

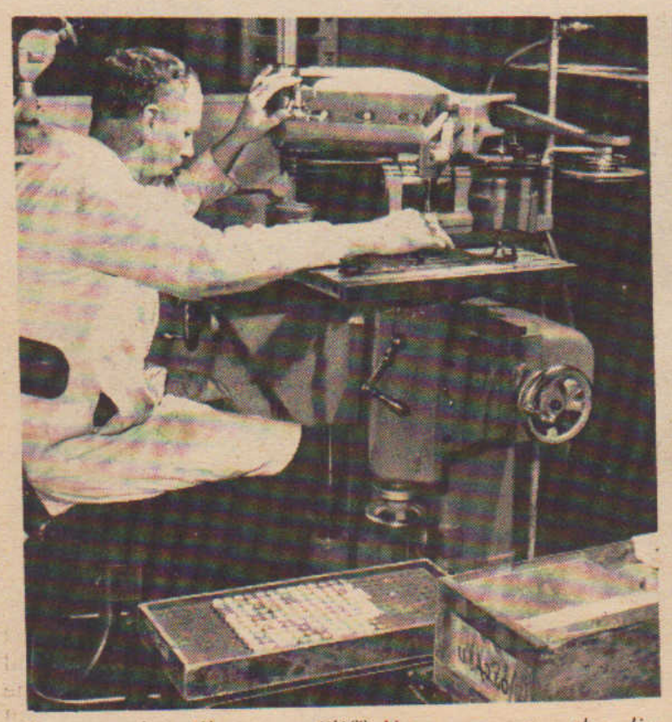
GREEKS AT BADDOW

As the result of a tender by Space Communications Division to provide a 90 foot earth station, two members of the Hellinic Telecommunications Organization (O.T.E.), Mr. Paraskevopoulos and Mr. Georgopoulos, came to Baddow last month to discuss production facilities and also to visit Goonhilly II. In the picture they are studying a model of a Marconi Space Communications Antenna: left to right: H. W. H. Fisher, sales manager Space Communications Division, Mr. Paraskevopoulos, Mr. Georgopoulos and E. D. Gilbert, divisional engineering manager.

£½ Million Automation Order for E.E.

The automation system for the first stage of Britain's most powerful coal-burning generating station, the 4,000 megawatt Drax station in Yorkshire, is to be supplied by English Electric. This £500,000 Central Electricity Board contract is the fourteenth won by the Company for a major power station automation scheme. With this order, a total of over 17,000,000 kilowatts of electricity generated by coal, oil and nuclear power will be under the supervision of English Electric automation systems.

ADVANCED MACHINES INSTALLED AT BASILDON



Pantograph mill setter, Cliff Yates, operates the die-sinker, working on small gear wheels for the digital readout of drum counters in the pilot's controller of the AD1400 and other aero equipments.

Mrs. A. Frost, coil winder, winding transformer coils for use in 6402 aero units.

A universal die-sinking machine to carry out very fine detail three-dimensional work and a re-styled coil winder are among new machines now in operation at Basildon.

The die-sinker, an Alexander Model 1A, is hand operated and fitted with a highly sensitive pantograph, it has a spacing block which limits it to two dimensions for engraving, form milling or routing.

The coil winding machine is a new version of the Meteor Compact ME307-01 and is fitted with an accurate digital electronic counter. Its big advantage is its infinite speed control and automatic pre-setting of turns.

PROGRESS OBSERVED

Marconi Self Tuning remote control equipment being demonstrated to Dr. Abdallah Madmond, Professor of Electrical Measurements at Cairo University, by J. P. R. Gorrie, H. F. Systems, Radio Communications Division.

Dr. Madmond was visiting this country to see advanced British techniques in the development of radio communications.

Computer System for on- stream Mineral Analysis

Elliott computerized X-ray analyser passes rigorous acceptance programme at Swedish mine

In the far north of Sweden, the world's first computer-controlled, mineral analysing system for ore processing has successfully completed a rigorous programme of on-stream acceptance and proving trials.

The complete system has been designed and produced by Elliott-Automation for the Kristineberg mining complex of Bolidens Gruv AB. It includes specially developed handling equipment which directs the ore material through the X-ray beam.

Tests of the system involved a 30-day period of continuous on-stream analysis of the iron, zinc, copper, lead and arsenic contents of five slurry streams (ore particles suspended in a flow of water). The equipment achieved a performance efficiency of 99 per cent.

Our 'Man-to-be' in Lagos

On an intensive eight-week induction into the work of Marconi is B. K. Denton from Lagos. Just before Christmas he returns to that territory to become the Company's representative attached to our agents, R. T. Briscoe (Nigeria) Limited.

Mr. Denton is seen, right, in discussion with P. A. T. Turrall, assistant chief of sales, Broadcasting Division, when they discussed forthcoming projects in Nigeria.

HACKBRIDGE QUARTZ CUTTING DEVELOPMENT

The first of two Meyer and Burger cutting off machines ordered by Hackbridge has been installed and is under test. The machines will be used for cutting natural or synthetic quartz for crystal production. Ferrite, glass, ceramics and similar materials may also be cut.

The machines incorporate fully automatic electro-hydraulic control of both wheel feed and work traverse, each movement being independently variable for speed.

PEDDINGHAUS-GATESHEAD'S BIG SAVER

With production of large reflectors for the NADGE (NATO air defence ground environment) rising rapidly, Gateshead have brought in new equipment which will cut down drastically on production time. Of these a new Peddinghaus universal steel worker, just installed, will save over 50 hours production time on each reflector.

Cropping and punching nore quickly and cheaply than a saw, it will crop to length and punch the fixing holes in 80% of the reflector members. This amounts to some 2,000 cuts and 8,000 holes with a time saving of 12 seconds on each cut and 20 seconds on each hole. The overall saving will be much greater as there will also be the benefit of improved methods, layout and handling facilities. Smaller and lighter than Gateshead's first Peddinghaus, it will be reserved for aluminium sections during the NADGE production run, segregating the aluminium from the steel and avoiding damage to the material with greater sheer blade life. Production will soon reach at least four large reflectors a year.

Largest ever order from Brazil

Twenty-four fast cargo liners now being built for Brazil's merchant fleet are to have British automation and control equipment. Under a package-deal worth £2 million recently signed in London English Electric's Power & Marine Division are to supply equipment to form a comprehensive automation system for each ship. This is the largest single order ever placed for marine automation.

WHO MAKES WHAT?

by J. Aikman, Controller of Manufacturing Services

The decision as to 'Who Makes What' depends upon several factors and in each case these are carefully considered by the Manufacturing Services Department.

Obviously there are cases where a solution is so obvious that no decision is needed. For instance, microelectronic devices can only be produced in a factory that is specially equipped for the purpose, this means Marconi-Elliott Microelectronics.

There is a wide range of products which can only be made by our general factories, such as Chelmsford, Basildon, Wembley or Gateshead, or else by our Research and Development Workshops.

Within these factories there is a degree of specialization to be considered. Basildon, for example, was designed to meet the requirements for aeronautical equipment, and Gateshead is equipped to handle large structures.

Units such as mechanical computers are allocated to Chelmsford or Wembley, because of their comprehensive gear cutting facilities.

Test facilities are also significant. The testing of colour television equipment, for example, requires a large investment in both test facilities and specialized test engineers. For this reason colour cameras, whether for Broadcasting Division or closed circuit television, are allocated to Chelmsford.

Many new designs are initially allocated in this way, but as quantities increase, significant new factors may arise to influence the initial decision. The situation is always, essentially, fluid, and never static. In all the factories new techniques are continually being introduced, or existing ones being extended.

What should come first—a change in the facilities available or the evolution of new designs demanding new techniques? The factories endeavour to keep up to date, not only with the best production techniques but also with the requirements of designers.

An important factor is Divisional association. Here the aim is to build up a special relationship between a product division and a factory, so that the common objectives are understood at all working levels, and people learn to work together more effectively. It is intended to develop our ability to identify factory units with Product Divisions or particular equipments.

Over ninety-five per cent of Aeronautical Division's products are made at Basildon, the principle exception being the mechanical computers mentioned earlier. Broadcasting Division have almost all of their products made in Chelmsford.

With some large divisions, which have a wide range of equipments, the relationship with factories has to be split into product groups. For instance, the transmitters for Radio Communications Division are made in Chelmsford, while the receivers are made at Wembley, both activities being big enough to warrant separate treatment.

A most important factor is cost, though broadly speaking the costs in each factory are very similar. There may be slight variations but any major differences stem largely from the two points already discussed, techniques and divisional association. Even after all these factors have been considered it is obviously essential to ensure that the optimum factory will have the necessary capacity at the right time.

Once a factory is nominated it is only changed as a last resort, and fortunately we have had to make very few such changes in the last four or five years. In every case the change was brought about by a sudden alteration in the Company load pattern. Minor sectional over/under loads are contained by local interchange or off loading with the responsibility remaining firmly with the nominated factory.

The available factory capacities are based on the requirements forecast by the product divisions. However, we have to consider the relationship of load and capacity, one, two, or even three years before the event and this occasionally necessitates a change.

We attempt to make a decision at the earliest possible stage so as to permit the maximum co-operation between design and production engineers throughout the design period.

For normal P.V. developments the trigger is the 'Job Proposal Form.' When this is approved the task is examined and a provisional nomination made at the 'study' or 'stage A' time. When the 'stage B' is approved a firm nomination is made. These decisions are promulgated on 'Manufacturing Information Sheets' which are circulated to the works concerned, the product division and the engineering section which raised the job proposal form.

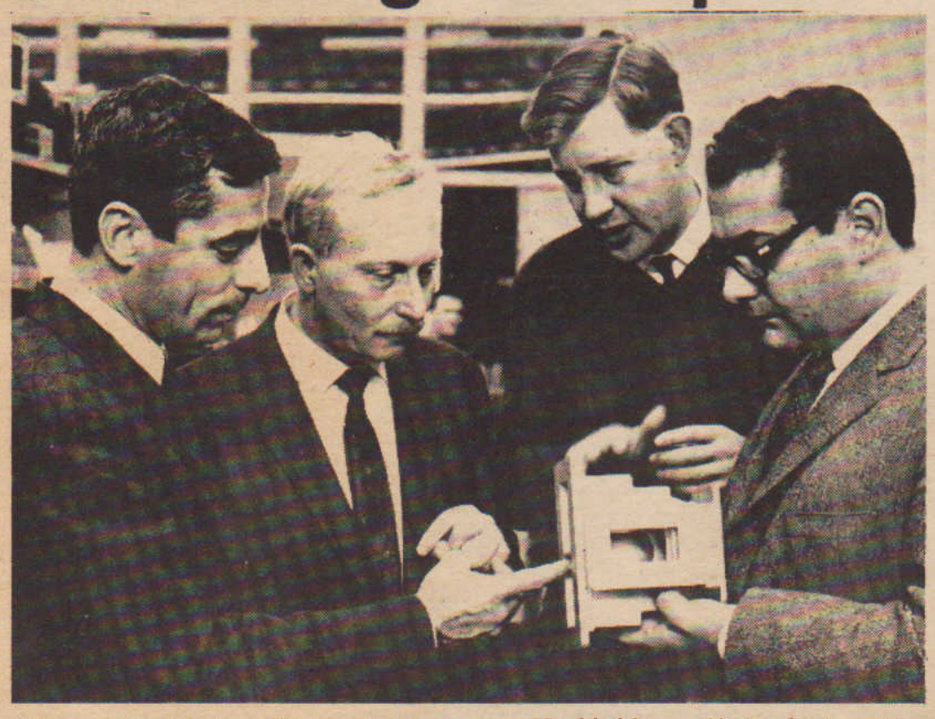
In the case of customers' orders a decision is made upon receipt of a nomination request form from the product division.

Enquiries and discussion on manufacture are welcomed by the controller of Manufacturing Services so that the most effective arrangements can be made.

U.S. GOES BIG ON WHITE NOISE

This year M.I. has sold the record amount of £250,000 White Noise test equipment to the U.S.A. The latest order from the U.S.A. is a further £54,000 worth of electronic test gear, and covers filters used with the Company's White Noise Test Set. This equipment is used in testing for inter-modulation and noise on multi-channel telephone links.

Marconi-Italiana See Testing Techniques



Dott. O. Fabbri and Ing. G. Zangiacomi of Marconi-Italiana visited Basildon last month to discuss automatic testing techniques on pulse code modulation, with a view to the possible introduction of these techniques at Genoa.

During their visit they also went to Hackbridge, Chelmsford, M.I., Widford Hall, and Billericay, where they are seen studying a new cast waveguide component. Left to right: Dott, Fabbri; L. D. Mendoza, test engineering controller, Basildon; J. A. Penney, group chief of Magnetic Materials Group, Billericay; and Ing. Zangiacomi.

SAFETY

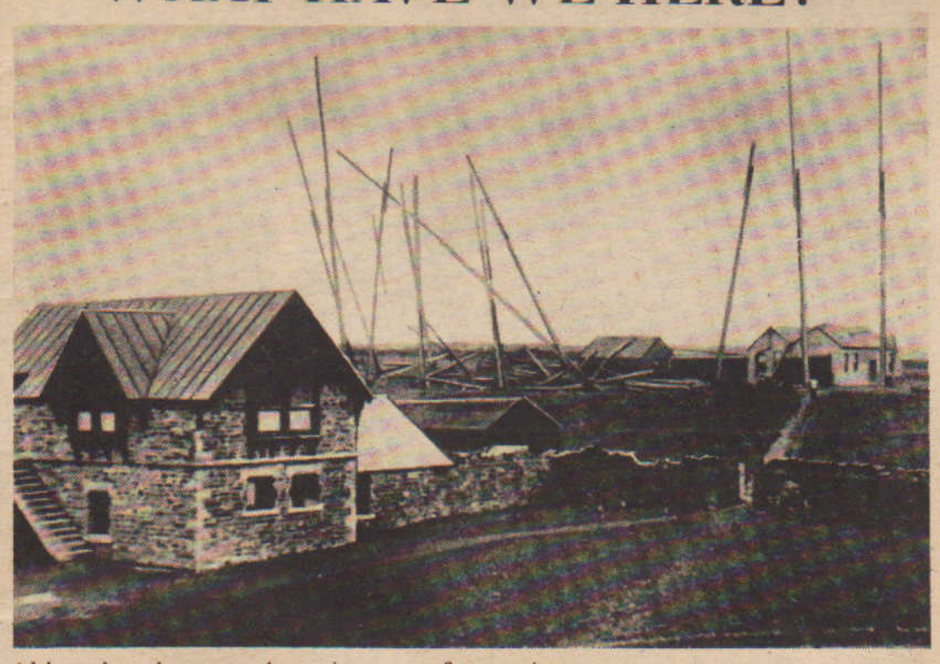
The Company has legal responsibility for safety under the Factories Acts, the Offices, Shops and Railway Premises Act and in Common Law. The Company also has a good safety record.

In recent years, there has been a rapid growth in the number of locations occupied by the Company, and at the same time, the legislation on safety matters has become more complex. Therefore, it is important to review current practices in the Company in order to ensure that we comply with our legal responsibilities.

All managers, supervisors, foremen and section chiefs are responsible for the safety of those working for them; for those working on premises or sites under their control and for the proper maintenance of their equipment whether in offices, laboratories or factories.

To provide advice and guidance to managers, J. Frewer is appointed company safety officer, responsible to manager, Central Personnel Services. He will visit all sites periodically to check that legal requirements are being fulfilled. Any problems or queries on safety matters from those who carry the responsibility, particularly in respect of layouts and the installation of equipment and machinery or any approaches from outside the Company (e.g. from H.M. Factory Inspectorate) should be referred to the company safety officer.

WHAT HAVE WE HERE?



Although the puzzle picture of October shows the early aircraft equipment as made by us as far back as the First World War, there were many correct answers. Messrs. Mortley (senior and junior), Baum and Cole came closest to the facts in their interesting replies:

Marconi Type AD1 aircraft radiotelephone transmitter complete with microphone and supply equipment, i.e. a dynamo driven by a separate small wood propeller.

An interesting letter from Mr. C. E. Rich referred to a slightly later version.

No doubt the most descriptive letter came from G. E. Mortley, from his retirement in Tunbridge Wells, ably seconded by his son, W. S. Mortley, Chief of Special Techniques Laboratory, Baddow. Many thanks to both of you.

Above is the puzzle picture for this month, and we invite our readers to describe the scene portrayed. Please address your correspondence to: The editor, Marconi News, St. Mary's House, Victoria Road, Chelmsford.

Fiery Furnace

Two of English Electric Valve Company's television camera tubes were salvaged from the fierce fire which burned out the ATV network camera tower at the Nottingham Forest football ground on August 24th.

On being returned to the Company at Chelmsford they were found to be in perfect working condition, and after being cleaned and fitted with new bases, they were returned to ATV for further service.

The TV tower was immediately above the central area of the fire.

ELECTRIC POWER FOR EARTHQUAKE VICTIMS

English Electric Diesels donate Generating Set to Iran

As a practical gesture of support following the tragic earthquake in Iran, English Electric Diesels has donated a 70kW diesel generating set to the relief services of the Red Lion Sun —Iran's Red Cross. The set will supply emergency power to the disaster area.

English Electric engineers worked through the night of Tuesday, September 3rd to prepare the set for air shipment to Teheran the following day.

An Eye on the Funnel

Nothing is left to chance in providing the perfect cruise holiday for passengers aboard Royal Mail Line's luxury cruise liner Andes. A Marconi close-circuit television "eye" enables the ship's engineers to detect instantly any smut-laden smoke leaving the vessel's funnel. A "Seastar" fixed aspect camera fitted in a waterproof housing has been experimentally sited on the upper deck of the vessel to view the top of the funnel.

ON MATTERS METRIC

Speak of a rolling English mile
For all the golden summer lanes
King Harry's yard was made to mark
A longbow shaft, the measure of a bowman's range.

The writing of our history is made
In Saxon Hundreds or a rod of ground
The farmer's bushel or a miller's pack
Fine silver by the ounce, a penny-weight, a pound.

What other measure for good English ale
Than pint or quart or firkin or a pin?
No grey litres in a rosy barrel
For all your mealy gerrymandering

Beware, you bloodless, pallid crew
We'll match a rounded dozen to your paltry ten
No foreign ruler gets an inch, much less a yard
But just one foot to give your mawkish metric men.

E. J. Rickman, Publicity Department

WAR-ON WASTE
(7)
Saving Time

Time means money. Industry is always looking for time saving methods of production, but how often is time frittered away in long discussions on a project.

Think of the time that could be saved at meetings if everyone knew his subject, asked the right questions and gave answers in binary form! How often meetings go on and on because one member has not done his "homework."

On the telephone too, and at any time where people need to speak to each other on working matters, economy of words means time and money saved.

In short, all this could be said in three words—time means money.

Sole Source of Power

When the new 600-bed Hussein Central Hospital for Jordan Forces opens in Amman in 1970, its sole source of electric power will be four 240kW diesel generating sets made by the Paxman Engine Division of English Electric Diesels.

Boosting E.E.'s Exports to Australia

W. J. Barnes, sales manager of English Electric's High Voltage Switchgear Division at Stafford is on a four weeks export boosting mission covering Australia and Tasmania to promote the Company's sales of high Voltage switchgear.

BED FURNACE FOR BILLERICAY

An unusual type of furnace is to be installed at Billericay, specifically designed for the rapid heating and oxidation of powders, particularly mixtures of oxides, carbonates and other materials used in the manufacture of ferrites and garnets.

The method of operation involves heating the powder in a chamber which is suspended within the conventional furnace enclosure and is surrounded by heating elements. A gas, usually oxygen, is admitted at the top of the furnace, and passes through the hot outer zone of the furnace, escaping by passing through the powdered charge. The charge is therefore fluidized or "boiled" by the flow of heated gas, giving very fast heating and quick oxidation time due to the separation of the particles. The furnace holds 5Kgm. of powder and operates at temperatures up to 1200 deg. C.

...AND AT EAST ANGLIA

Another University is going for CCTV in a big way.

The University of East Anglia has recently taken on to its staff a full-time, professional engineer who will be responsible for the designing and building of a closed-circuit television system for the biology department for the presentation of demonstrations and experiments in two large laboratories. The system will include a Marconi V322B view-finder camera, two V322A cameras and two video tape-recorders supplied by Electro-Optical Systems Division.

It is anticipated that some of the equipment will be transferred later to a central studio complex which is due for completion early in 1969.

Appointment

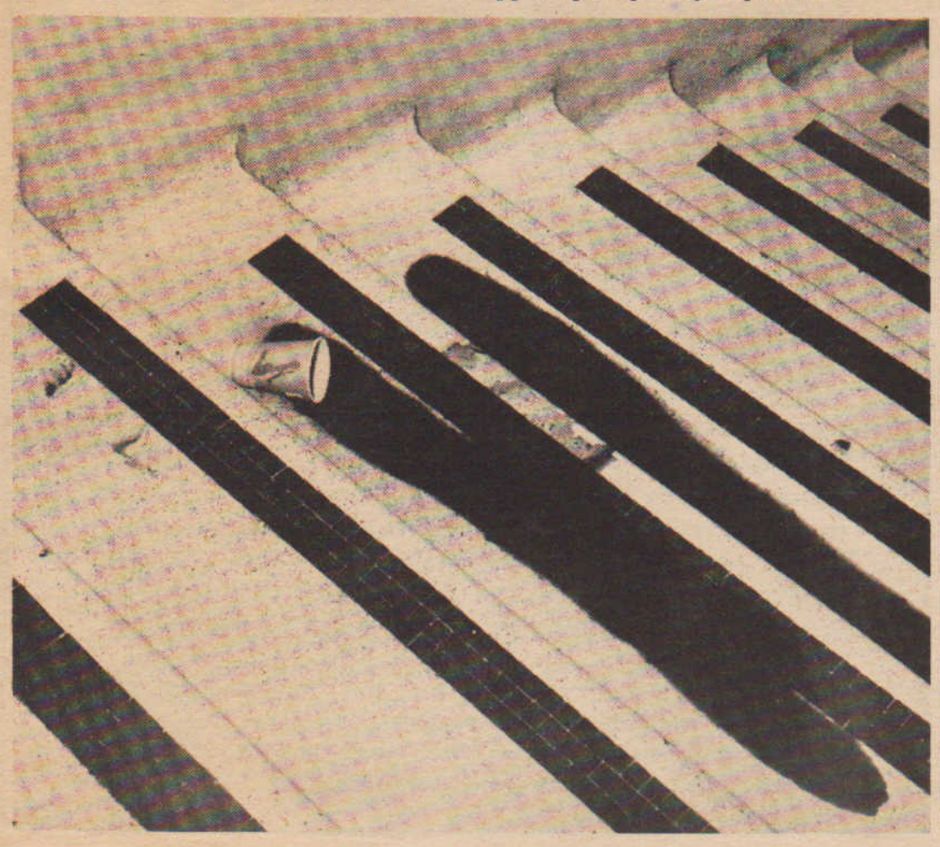
MARCONI INSTRUMENTS

B. C. Dey, M.I.E.E.E., has been appointed Marketing Manager for the range of automatic test systems—"Autotest"—recently introduced by Marconi Instruments. A rapid increase is planned in sales of this equipment.

SAFETY POINT

One of the major causes of accidents in the Company is through people slipping or tripping. The figures for this type of accident have risen since the introduction of the tea vending machines.

People should always ensure that any spilt liquid, particularly on staircases, should be mopped up as quickly as possible.



M.I. at MANCHESTER

New developments in electronics were demonstrated by Marconi Instruments and its Sanders Division at the Second Electronic Instruments Exhibition at Manchester's Hotel Piccadilly last month.

A special television test gear demonstrated was the new automatic test equipment "Autotest," which had its debut last May at the I.E.A. Exhibition in London.

* * *

The new chairman of ICL, Sir John Wall, has stated that Britain's computer industry has about two years to form an effective unit competing successfully with Europe and America.

* * *

The Financial Times reports that Britain looks like losing further business in the British Caribbean Territories as they are now forming a closer alliance with South America.

SIXTY-SECOND RESCUE

A light-weight aircraft generator fitted in the side of a converted 1957 Commer tender, will act as a mobile power station for the Barnsley Fire Service when it is called for rescue work on motorway crashes.

Originally ordered for fighter aircraft, the generator has been adapted to be carried in rescue work vehicles. Modified by English Electric's Aircraft Equipment Division, it gives an on-the-spot supply of electricity to operate cutting tools and lighting needed to free trapped passengers from road, rail or air crashes.

* * *

The State of New York Metropolitan Transportation Authority has placed an order worth over £1 million ($2.8 million) for electrical sub-station equipment to be installed on the Long Island railroad, with the English Electric Corporation, New York.

SITUATIONS VACANT

DIRECTORATE OF ENGINEERING

There are three vacancies in the Component Information and Identification Service Department of the Directorate of Engineering:

(1) Liaison engineer required to accompany manufacturers' representatives on visits to engineers in all areas of the Company; to seek out engineers' requirements and problems particularly in the semiconductor and integrated circuit fields, and provide the two-way link with the central store of information.
Location: Baddow. Qualifications: HNC with experience in using semiconductors and integrated circuits and solving circuit problems. Please quote ref. DE/CIIS/1.

(2) Technical information officer required to answer queries from engineers across the Company on all aspects of semiconductor components and integrated circuits and their use.
Location: Baddow. Qualifications: Good HNC and a lively mind able to relate rapidly and accurately his knowledge and experience to a wide range of problems. Please quote ref. DE/CIIS/2.

(3) Technical catalogue librarian required to maintain manufacturers' catalogue library dealing with semiconductor components and circuits. Liaison with manufacturers' representatives would be necessary to up-date information on their products and add new product information. Required to answer the more straightforward queries from engineers.
Location: Baddow. Qualifications: ONC or City and Guilds. Please quote ref. DE/CIIS/3.

Applications giving a summary of experience to date, age, qualifications and quoting the reference DE/CIIS/1, 2 or 3 and your internal telephone number should be addressed to A. W. Goddard, personnel officer, Central Personnel Services, New Street.

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