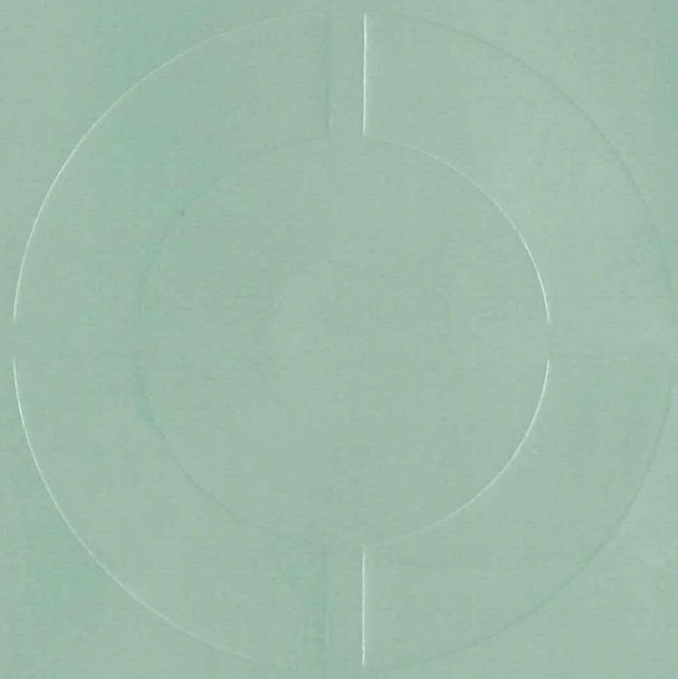


MARCONI
AVIONICS



Sales Directory and Product Guide

1983 - 84

Marconi Avionics Limited

head office

Airport Works, Rochester, Kent, ME1 2XX, England
Telephone: Medway (0634) 44400 Telex: 96333 MEAROC G

general information

Can be obtained from the Information Officer at Head Office (address above)

sales enquiries

Our business is conducted by trading Divisions, each of which is expert in its own field.

- **To locate a required product or service**, please refer to the alphabetical index (Part 3). The key shows which Division(s) can supply.
- **If you wish to discuss new requirements**, the Division to contact can be found from:
 - the general description of our capabilities and organisation (Part 1) or
 - the general description of each Division's business (Part 2, green pages).
- **To contact any Division**, please refer to the index on page 6 (facing the green pages).
- **If in doubt**, please contact the Information Officer at Head Office (address above).

after-sales support

Arrangements are usually agreed at the time of purchase. If there are difficulties, however, please contact:

- Airradio Spares and Service Unit (for airborne radio), or
- Aviation Service and Repair Division (for avionics, other than radio or radar), or
- The Division which supplies the product concerned, or
- The Information Officer at Head Office.

The Divisions are listed on page 6.

our capabilities
at a glance...

Flight Control Systems
Stability Augmentation
Autopilots/Flight Directors/Autothrottles
Automatic Landing
Fly-by-Wire
Fly-by-Light
Quadruplex Actuators

Powerplant Systems
Digital Engine Control
Fuel Management
Range/Endurance Computing
Engine Intake Control
Nozzle Control
Fuel Mass Flowmeters

Motion Sensors
Low Airspeed Sensors
Gyros
Accelerometers
Attitude and Heading References
'Strapdown' Inertial Measurement Units

Navigation
VOR/ILS and DME
TACAN
Doppler Systems
Inertial Systems
Automatic Direction Finders
OMEGA
Stabilised Gyrocompass

Airborne Communications
HF, VHF, and UHF Systems
Tactical Systems
Communication Control
Antenna Couplers
Data Link Systems
Communication Systems Integration

Displays and Interfaces
Electronic Head-Up Displays
Electronic Head-Down Displays
Multi-mode and TV Tabular Displays
Helmet Mounted Displays
Situation Displays
Projected Map Displays
Digital Scan Converters
Speech Recognition Systems

Weapon Systems
Digital Head-Up Display Weapon Aiming
Digital Inertial Navigation and Attack
Stores Management
Electro-Optical Weapon Guidance
Underwater Weapon Guidance

Airborne Computing
Air Data Computers
Task-Orientated Computers
Central Processors
MIL STD 1553B Bus Systems
MIL STD 1750 Computers

Airborne Radar
Airborne Interception
Air Combat
Airborne Early Warning
Mapping and Ground Attack

Maritime Surveillance
Sonobouy Data Processing and Display Systems
Helicopters Hybrid Sonar Processing and Display
Tactical Navigation and Display

Signal Processing
Ship and Submarine Sonar Systems
Specified Acoustic Signal Processors

Airborne Power Supply Systems
Software
Software Engineering
Software Design and Development
Real Time System Software
Computer Aided Design Software
Test Program Software

Automatic Testing
Computer-Controlled Testing Equipment

Recording Systems
Airborne Data Recorders

Laser Devices
Rangefinders and Target Markers
Carbon Dioxide Lasers, Pulsed and CW
Stabilised Frequency Lasers

Electro-Optical Systems
Thermal Imaging and LLTV
Missile Guidance, Gathering and Tracking
Secure Command and Video Data Links
Passive Surveillance and Target Designation
Surveillance from Aircraft, Helicopters and RPV's
Industrial Control and Surveillance
Underwater Imaging and Acoustic Signal Processing

Military Surveillance Systems
Battlefield Surveillance Radars
Battlefield Remote Ground Sensors
Surveillance Instrument Mounting Systems

Civil Security Systems
Fixed-Site Seismic and IR Perimeter Security Systems
Access Control
Microprocessor Controlled Data Handling
Closed Circuit and Low Light Television

Offshore Technology
Underwater Exploration Systems
Wellhead Monitoring and Surveillance
Offshore Control and Instrumentation

X-ray Devices
X-ray Generators
Diffraction Equipment and Cameras

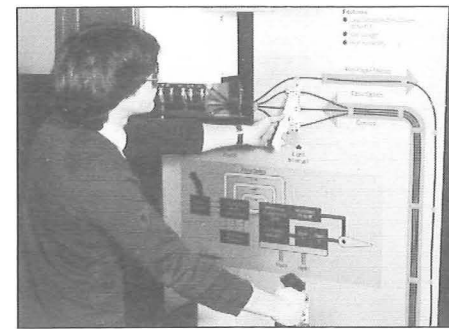
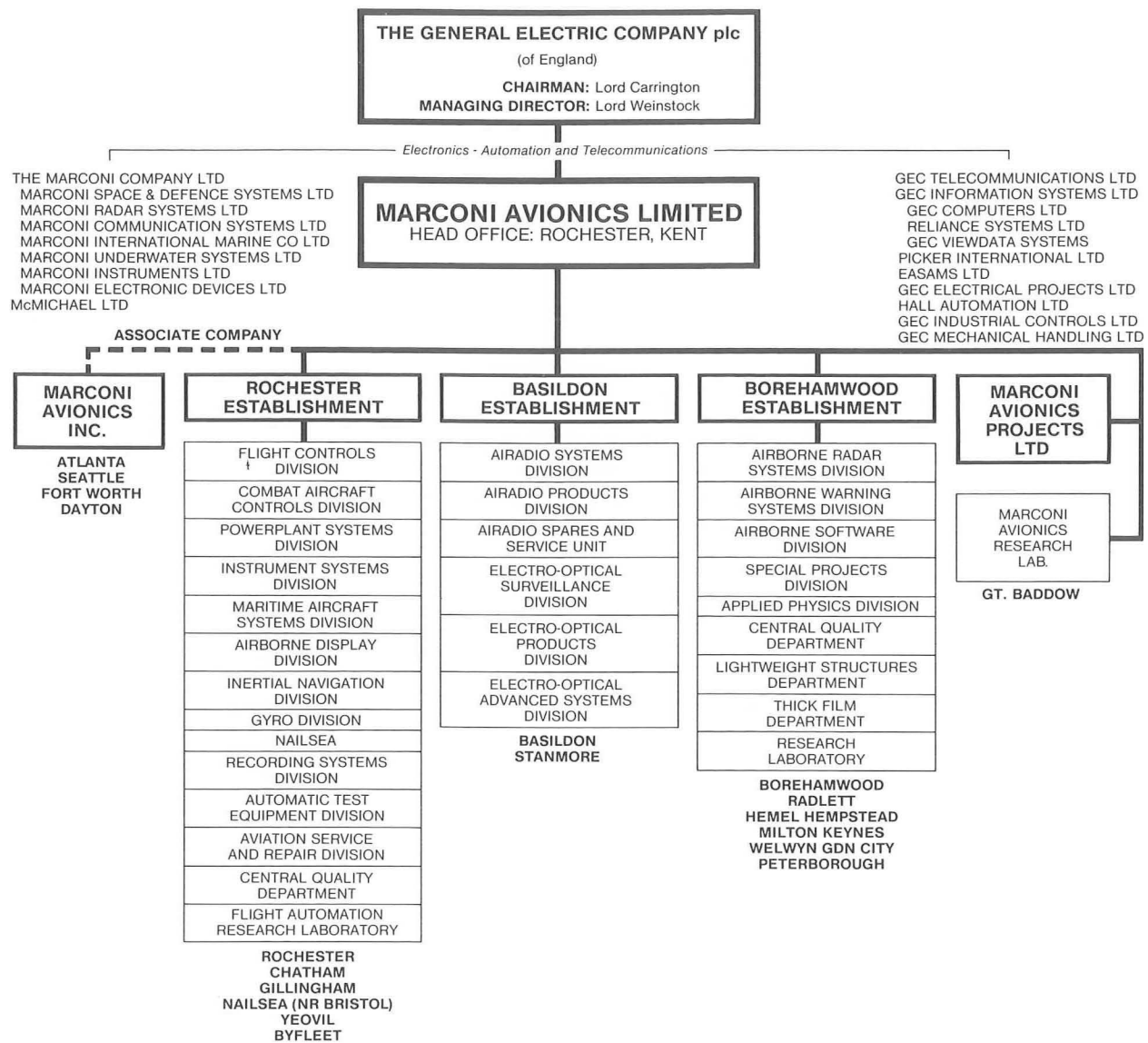
Neutron Devices
Neutron Generators
Activation Analysis and Radiographic Equipment
Neutron Therapy Equipment
Reactor Commissioning Equipment

Systems Engineering
Turnkey Projects
Avionics Retrofit

For full details please see Part 3
(pages 11 to 16)

Part 1

organisation, locations and facilities



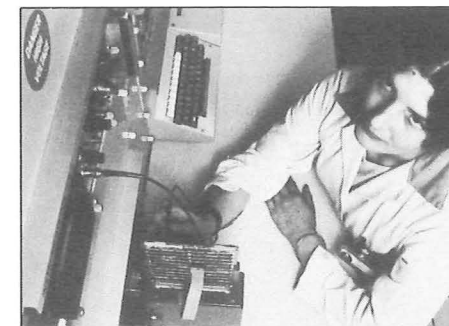
One of the many areas of research is optical data transmission. This is an advanced 'fly-by-light' test rig.



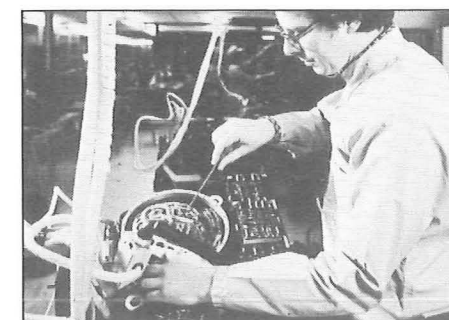
Advanced computer-aided engineering facilities assist development engineers and designers in meeting new requirements quickly and cost-effectively.



Professional engineering skills applied in our factories and on site are the best assurance of quality, reliability and operational safety.



Automatic test equipment is widely used in our production. This one is produced by us and supplied to our customers at home and overseas.



A typical 'clean-room' dedicated to product support.

a world-wide operation with full facilities...

Marconi Avionics, part of the United Kingdom's biggest electrical company, GEC, accounts for 13% of its overseas business. Marconi Avionics is also Europe's biggest producer of aviation electronics of all kinds, ground support equipment for the world's civil and military aircraft, and related high technology systems for use on land and at sea.

We are organised to innovate across the whole of our large product range and are an established supplier in some of the world's most competitive markets. Our Divisional organisation enables us to match our service to the needs of individual customers, to meet the most demanding technical specifications and delivery requirements.

The products and services we supply are backed by our full facilities for research, design, development, manufacture, quality assurance and after-sales support.

research

Applied research is carried out by the Flight Automation Research Laboratory at Rochester, the Research Laboratories at Borehamwood and Great Baddow, and the Electro-Optical Future Systems Laboratory at Basildon.

These organisations also carry out research and development work for customers, some details of which are described in the Directory (Part 2, blue pages). Our own extensive research facilities are backed by those of the GEC Hirst Research Centre.

design

Every manufacturing Division has its own design teams specialising in meeting customers' requirements. Extensive use is made of computer aids.

development

Engineering development is a service provided by every Division to ensure that our customers' installations are completed on time and to specification. A large proportion of our workforce is professionally qualified - mainly in engineering. Our extensive facilities for software design and development are staffed by our own highly-qualified Programmers and our specially-trained Software Engineers.

manufacture

Every Division's production organisation is backed by Central Machine Shop services including the latest kinds of automated machinery and assembly techniques.

support

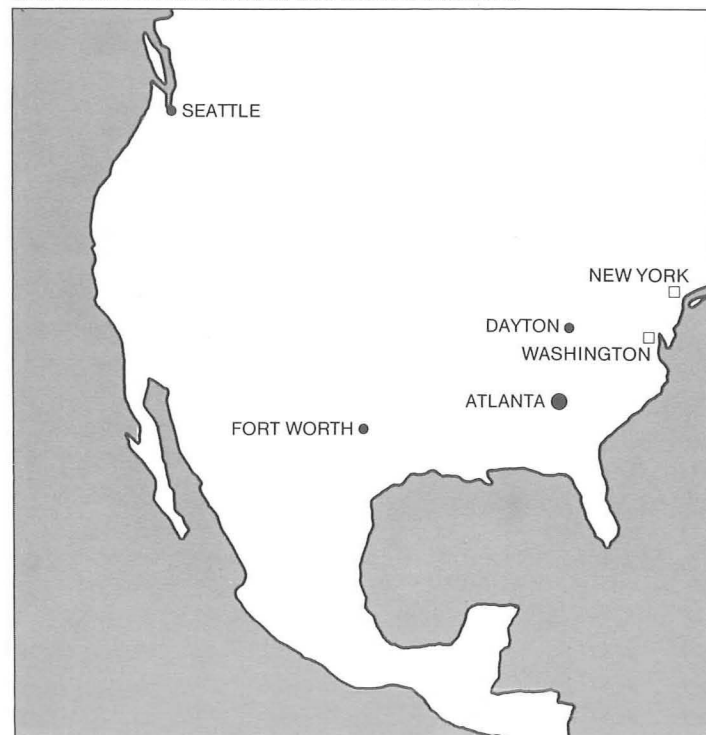
Aviation products are supported by the Aviation Service and Repair Division and the Airadio Spares and Service Unit. We offer the full range of product support, including manuals, training, warranty administration, reliability guarantees, spares supply and repairs, including exchange schemes, and logistic support 'packages' to individual customer requirements. For support details concerning a specific product, please contact the relevant support or manufacturing Division.

project management

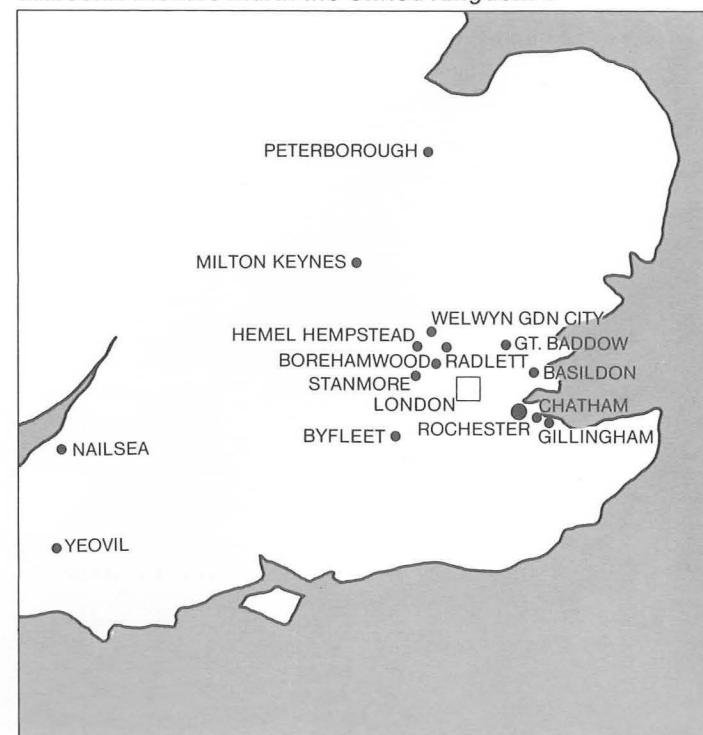
We have wide experience in managing systems projects right through from specification to commissioning, in all fields of our business, both as 'design and build' and as 'turnkey' projects. We apply these skills to integrated systems, mission avionics, and weapon aiming and control systems, for applications which include aircraft retrofit.

For further details, please contact an appropriate Division or ask for the Company Information Executive at Head Office.

Marconi Avionics Inc. in the United States ●



Marconi Avionics Ltd. in the United Kingdom ●



military avionics

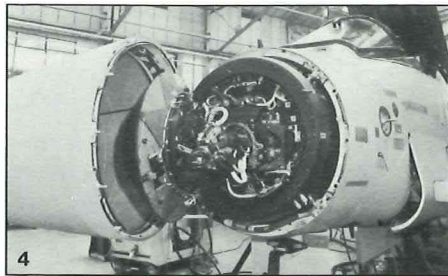
Systems we supply include radio navigation and communications, flight and engine control, powerplant test, navigation and weapon aiming, cockpit television, acoustic processing and display, head-up display, fuel measurement, radar, air data and mission systems in general, for every kind of military aircraft. A few examples are illustrated.

- 1 We are the world's foremost producer of cockpit displays and head-up display/weapon aiming systems. This latest is the holographic HUD for the US Air Force LANTIRN programme.
- 2 The Jaguar 'fly-by-wire' system has demonstrated the benefits of full computer control for advanced combat aircraft. We are also producing advanced 'fly-by-light' systems.
- 3 We have designed a new range of cost-effective Standard Central Air Data Computer Systems for the United States Air Force and the United States Navy, to meet performance and logistics requirements of aircraft in their current inventory and for the future.
- 4 The Foxhunter air interceptor radar (illustrated) is fitted to British Tornado fighters, and our air combat radars are also available for export. The Mission System Avionics is the heart of the AEW Nimrod airborne early warning radar system.
- 5 The military version of the very advanced Laser Inertial Navigation System, LINS, which Honeywell is supplying for the latest Boeing Airliners, is now incorporated in military systems offered by Marconi Avionics.
- 6 The AQS901 system, installed on anti-submarine aircraft of the Royal Air Force and Royal Australian Air Force, is complemented by the lightweight AQS902 system, in service with the Royal Navy and available for fixed wing aircraft and helicopters.
- 7 Machan, the Marconi Avionics unmanned research aircraft, is a vehicle for proving advanced avionics and air-ground data links. We have over 20 years experience with remotely-piloted aircraft programmes and are leading a design study for the UK Phoenix surveillance project.

civil avionics

We have been continuously associated with airborne radio systems and instrumentation since the earliest days of air transport. Today we supply the world's airlines with automatic flight control, radio navigation and communications, energy management, electronic displays, ground proximity warning systems and automatic test equipment.

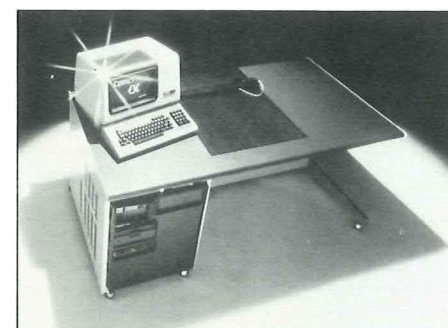
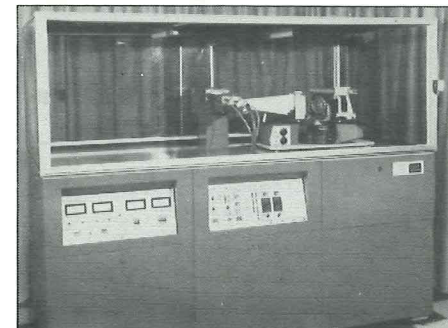
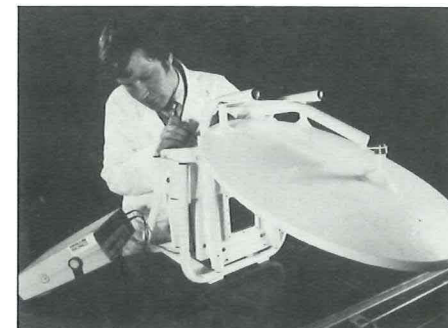
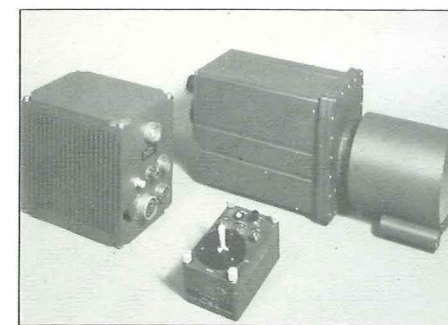
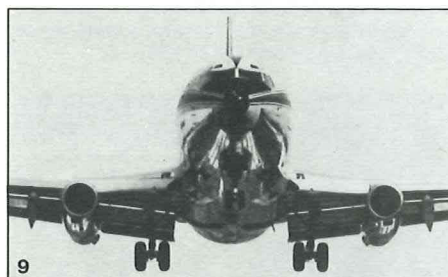
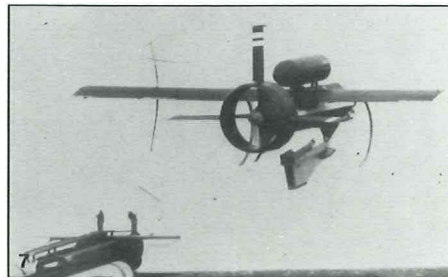
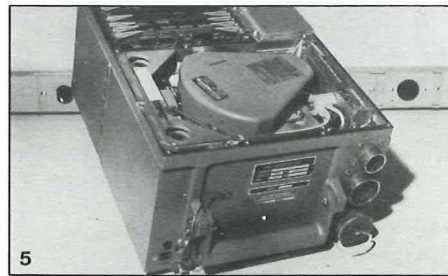
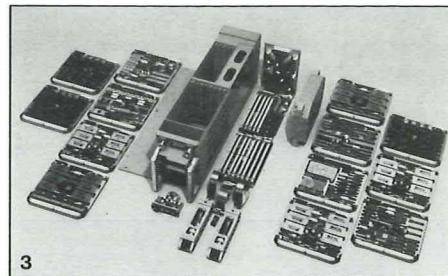
- 8 Our 'intelligent' electronic controls for the wing slats and flaps of the A310 European Airbus are the first of their kind in airline service.
- 9 Boeing airliners all over the world fly our ADF, Doppler navigation, communications and automatic throttle control systems. The Boeing 737 is fitted with our new Doppler Velocity Sensor.



10 Our automatic flight control system for Concorde, produced with SFENA, is still the most operationally-advanced in airline service, including Mach 2 cruise and automatic blind landing.

11 The Boeing 747 is equipped with our full flight regime automatic throttle control system.

12 The BAe 146 airliner is fitted with our latest communications control system.



electro-optical systems

Daylight and low light television systems, cockpit television, and surveillance systems, including helicopter television and data links, thermal imaging systems for day/night viewing, advanced picture processing systems and stereoscopic television, are examples of our large range of electro-optical systems. The illustration is a Thermal Imager built from Class II Thermal Imaging Common Modules (TICM II), supplied for the armed forces of the United Kingdom and other nations.

inertial measurement

Our inertial measurement units include gimballed platforms, such as the NCS-I attitude and heading reference unit for ships and boats and a whole range of 'strapdown' IMU (illustrated in production). The picture shows the micro-processor based units for the Spearfish torpedo and the MAVHRS vehicle heading reference, as well as production units for the Sting Ray torpedo.

security and surveillance

We supply intruder alarm and perimeter protection systems for civil applications, military systems such as the ZB 298 battlefield surveillance radar and the HERMES remote ground sensor, and a system for detecting the level of material in silos and storage bunkers.

radiation devices

We produce systems and components for X-ray diffraction, gas lasers and neutron generators. Our high power rotating anode X-ray generator with Lang Topography camera is illustrated.

automatic testing

Our extensive range of automatic testing systems is based on our own use of these and similar equipments. Illustrated is flexible, mobile COMPACT α for testing digital electronics. Our Automated Powerplant Test system tests gas turbine engines automatically, reducing maintenance costs and simplifying operator training.

offshore oil production

We supply electro-hydraulic systems for subsea wellhead control, telemetry, platform electronics and remote viewing systems to the offshore oil and gas industry. The illustration shows control and monitoring electronics for the BP Magnus field, including 'fail-safe' control pods and quick-release inductive couplers for electrical power and signal connections.

Index

trading divisions and their 'key' codes

Division	Code	Location	Tel No	Telex No
Rochester Establishment				
Airborne Display	01	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96304
Automatic Test Equipment	02	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96246
Aviation Service and Repair	03	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96211
Central Quality Department (R)	04	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Combat Aircraft Controls	05	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Flight Automation Research Laboratory	06	Airport Works, Rochester, Kent, ME1 2XX	(0634)44433	96333
Flight Controls	07	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	965450
Gyro	08	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Inertial Navigation	09	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Instrument Systems	10	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400 **	96333
Maritime Aircraft Systems	11	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Nailsea	12	2 High Street, Nailsea, Bristol, BS19 1BS	(0272)856511	444791
Powerplant Systems	13	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Recording Systems	14	Canada Road, Oyster Lane, Byfleet, Surrey, KT14 7JU	(09323)44451	
Associated Operations				
Marconi Avionics Inc.(USA)	21	Marconi Avionics Inc., 4500 N Shallowford Road, Atlanta, Georgia	(404)394-7800	708447
Marconi Avionics Projects Ltd *	25	Airport Works, Rochester, Kent, ME1 2XX	(0634)44400	96333
Marconi Avionics Research Laboratory	26	West Hanningfield Road, Great Baddow, Chelmsford, CM2 8HN	(0245)73331	99201
Borehamwood Establishment				
Airborne Radar Systems	30	Monks Way, Linford Wood, Milton Keynes, Buckinghamshire	(0908)315117	825329
Airborne Software	31	Elstree Way, Borehamwood, Hertfordshire, WD6 1RX	(01)953-2030	22777
Airborne Warning Systems	32	Eaton Road, Hemel Hempstead, Hertfordshire, HP2 7EA	(0442)42141	825230
Central Quality Department (Bw)	33	Elstree Way, Borehamwood, Hertfordshire, WD6 1RX	(01)953-2030	22777
Lightweight Structures	34	Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire, AL2 2EA	(092)76-4757	922989
Applied Physics	35	Elstree Way, Borehamwood, Hertfordshire, WD6 1RX	(01)953-2030	22777
Research Laboratory	36	Elstree Way, Borehamwood, Hertfordshire, WD6 1RX	(01)953-2030	22777
Special Projects	37	26 Hydeway, Welwyn Garden City, Hertfordshire, AL7 3ED	(070)73-28511	269404
Thick Film Department	38	Old Parkbury Lane, Colney Street, St. Albans, Hertfordshire, AL2 2EA	(092)76-4757	922989
Basildon Establishment				
Airadio Products	50	Christopher Martin Road, Basildon, Essex, SS14 3EL	(0268)22822	99225
Airadio Spares and Service Unit	51	Dalston Gardens, Stanmore, Middlesex	(01)204-3322	27381
Airadio Systems	52	Christopher Martin Road, Basildon, Essex, SS14 3EL	(0268)22822	99225
Electro-Optical Advanced Systems	53	Christopher Martin Road, Basildon, Essex, SS14 3EL	(0268)22822	995313
Electro-Optical Products	54	Christopher Martin Road, Basildon, Essex, SS14 3EL	(0268)22822	99451
Electro-Optical Surveillance	55	Christopher Martin Road, Basildon, Essex, SS14 3EL	(0268)22822	99451

* Registered Office

** Telefax (0634)401748

Part 2

directory of divisions and departments

Each Division and other trading organisation of our company is listed here alphabetically by Establishment, and has a unique number code (see facing page) by which it can be identified in the Products/Services Guide section (Part 3). The number codes (01-14 for Rochester Establishment, 21-26 for Associated Operations, 30-38 for Borehamwood Establishment and 50-55 for Basildon Establishment), relate to this publication only and have no other significance.

We suggest that the first contact with a Division should be made to the Divisional Manager at the appropriate address (shown on the facing page).

Rochester Establishment

Head Office: Airport Works, Rochester, Kent, ME1 2XX, England.

Telephone: Medway (0634) 44400 Telex: 96333 MEAROC G

01 Airborne Display Division

'Head-up' and 'head-down' displays developed and produced for the world's aircraft. Display systems include navigation/weapon aiming systems for both air-to-air and air-to-ground operations, airborne tactical displays and night vision systems including holographic (wide-angle) displays, helmet display systems and image-enhancing goggles.

02 Automatic Test Equipment Division

Automatic test sets for functional testing and analogue and digital equipment for factory, depot and field use, including mobile applications. Systems available include the COMPACT range using Virtual Instrumentation, and test equipments such as COMPACT Q which operate with standard (IEEE 488) test instruments. Customer support services include the preparation of test programs, adapters and handbooks, training, maintenance, calibration and repair.

03 Aviation Service and Repair Division

Total integrated support for Marconi Avionics products. Services embrace equipment repair, overhaul and modification, warranty administration, logistics support engineering, NATO codification, spares recommendations, stocking, supply and AOG service, on-call and on-site field service, comprehensive equipment and maintenance training, test equipment design and supply, test equipment calibration, technical publications, development, operation and transfer to customer of depot level repair facilities including provision and update of ATE software. Special-to-customer support options include cost-per-flying-hour, fixed-cost-fixed-turnaround and direct exchange schemes.

04 Central Quality Department (Rochester)

Product assessment consultancy and testing services covering a wide range of National and International Standards. Comprehensive environmental and mechanical test facilities. Electromagnetic compatibility testing including mobile facilities and advisory services on suppression techniques for use on customers' sites, off-shore oil platforms and similar locations. Component testing and diagnosis. Calibration of electrical and mechanical items and environmental facilities.

05 Combat Aircraft Controls Division

A wide range of automatic flight control systems, subsystems for combat aircraft and guidance and control systems for missiles. Products include integrated AFCS to customers' requirements, autopilots, command and stability augmentation systems, fly-by-wire systems, fly-by-light systems, autothrottle controls, terrain following systems for aircraft and missiles, and specialised systems, such as are required for spin and incidence limiting.

06 Flight Automation Research Laboratory

Research and development for customers into fields related to flight automation, including sensors, control systems, navigation, advanced digital processing, displays, helmet-mounted displays, direct voice input, data transmission, optical design, power supplies, subsea exploration and unmanned aircraft.

07 Flight Controls Division

Automatic Flight Control Systems and subsystems for civil and military transport aircraft, helicopters and unmanned aircraft, including drones. Products include integrated AFCS to customer requirements, autopilots, automatic landing and autothrottle control systems, autostabilisation systems and electronics for secondary flying controls, such as slats and flaps. Hydraulic actuator development.

08 Gyro Division

Sub-miniature precision rate and rate integrating gyroscopes and accelerometers including associated electronics (power supplies, current generators, microprocessors, demodulators, output interface circuits, etc). Multi-axis gyro and accelerometer units for a.c. or d.c. inputs and outputs. Strapdown attitude sensing units, control sensing units and attitude and heading reference systems for underwater weapons, fighting vehicles, aircraft, helicopters, air cushion vehicles and guided weapons.

09 Inertial Navigation Division

Development and production of aircraft, missile, vehicle and ship navigation, attitude and heading reference systems based on both conventional and RLG gimbaled and strapdown inertial technology; related systems including digital computers, projected map displays, terrain referenced systems. Total system integration, and software capabilities.

10 Instrument Systems Division

Advanced central air data computers and air data sensors for every kind of military aircraft. Omni-directional air data systems for helicopters. Stores management systems for combat aircraft. Performance management systems for helicopters.

11 Maritime Aircraft Systems Division

Acoustic processing and display systems for all types of anti-submarine (ASW) and surveillance aircraft and helicopters. Airborne tactical information display systems for maritime aircraft and helicopters, to integrate and display all sensor and navigational data. Total avionics system integration for fixed wing aircraft and helicopters. Operational support for integrated and stand-alone ASW systems in terms of training, post-flight analysis and software support and development.

12 Nailsea

Compact, reliable Power Conversion Units for avionics and general military applications including ground, mobile and marine electronic systems, designed and produced for hostile environments. Offshore projects such as fail-safe electronics for the control of subsea wells and manifolds, well-to-platform telemetry, command and monitoring data links, quick-release inductive couplers for power and signal connections, control and monitoring consoles for production platforms.

13 Powerplant Systems Division

Fuel control electronics for gas turbines, digital engine control, engine supervisory electronics, aircraft fuel flow and fuel quantity measurement systems, microprocessor-based fuel flowmeters, automatic test and monitoring systems for the cost-effective ground testing of powerplants.

14 Recording Systems Division

Development and production of data recording systems for use in hostile military and industrial environments. Archiving system for satellite image data.

21 Marconi Avionics Inc., Atlanta

Marconi Avionics Inc. is engaged in the design, manufacture, and integrated logistic support of the avionic and industrial electronic equipment which the Company supplies to the United States. Established in 1962, Marconi Avionics Inc. employs 400 people at its main plant in Atlanta, Georgia, and branch offices in Fort Worth, Seattle and Dayton. Company-funded research and development includes work in the area of carbon dioxide TEA lasers, for which a separate, fully-equipped facility is maintained.

25 Marconi Avionics Projects Limited

This company was founded in 1980 in order to carry out specific projects for which avionics are supplied by a number of Divisions of Marconi Avionics Limited.

26 Avionics Research Laboratory, Great Baddow

The Avionics Research Laboratory in the Marconi Research Centre, Great Baddow, has been established to provide research and advanced developments of specific interest to trading Divisions. It comprises an Applied Physics Group, a Sensor Systems Group, a Digital Processing and Displays Group, and a Control Systems Group. It is currently making holographic filters for advanced wide-angle head-up displays.

Borehamwood Establishment

Main office: Elstree Way, Borehamwood, Herts, WD6 1RX, England.

Telephone: 01-953-2030 Telex: 22777

30 Airborne Radar Systems Division

Development and production of airborne interception radar systems, combat radars, fire control and weapon guidance radars, radar simulators and associated test equipment.

31 Airborne Software Division

Studies, development, consultancy and services in the following fields: real time computer software, real time computer based military systems, trials analysis and simulation software, computer aided design services, requirements engineering, management software for air defence systems and related data handling systems.

32 Airborne Warning Systems Division

Airborne early warning radar systems and complete mission system avionics for AEW aircraft. System integration and project management. AEW radar systems design, development and production; test equipment and simulators.

33 Central Quality Department (Borehamwood)

Quality assurance services to meet National and International Standards including extensive environmental testing and engineering facilities, active and passive component testing, calibration of electrical and physical measurement equipment, and the preparation of quality procedures, standards and codes of practice.

34 Lightweight Structures Department

Design, development and production of high-performance precision lightweight composite structures, in particular lightweight communications and radar aeriels. Full technical support and testing service.

35 Applied Physics Division

Mobile Radar Department

Battlefield surveillance radars; battlefield remote ground sensors; remote ground sensor systems employing seismic, infra-red or other techniques; precision angulation and mounting systems for battlefield optical equipment; radars for industrial use, including radar level detectors for vertical storage bunkers, for use in coal mines and silos; perimeter protection and site security systems based on infra-red, seismic and television techniques including integrated and computer controlled systems; laser systems, including rangefinders and high stability lasers for such applications as low airspeed and turbulence measurement.

Physics Department

High intensity X-ray generators and instruments used worldwide; X-ray diffraction and topography instruments for research and process control; neutron generators and systems; carbon dioxide and HeNe lasers for military, scientific and industrial application.

36 Research Laboratory (Borehamwood)

Research and development of microwave components, microwave integrated circuits, aeriels and systems, radar techniques, radar and laser systems studies, scanners, thick and thin film hybrid microcircuits, laser anemometry and laser rangefinding, signal processing and VLSI.

37 Special Projects Division

Advanced digital signal processing and display systems for ship and submarine sonar systems.

38 Thick Film Department

Manufacture of thick film hybrid microcircuits for commercial and military applications. Approved to Def. Stan. 05-21 and BS 9450 full assessment (including Category B add-on components). Customer participation on design to any stage by agreement. 100% screening procedures include temperature cycling, seal integrity, burn-in and additional screening by request.

Basildon Establishment

Main Office: Christopher Martin Road, Basildon, Essex, SS14 3EL, England.
Telephone: Basildon (0268) 22822 Telex: 99225 (Airadio), 99451 (Electro-optical)

50 Airadio Products Division

Airborne radio navigation and communications equipment for widespread use in civil and military aircraft of all kinds. Systems to ARINC and MIL STD specifications include HF, VHF and UHF communications for clear and secure voice and data. Ground stations VHF, UHF. Communications control systems (intercomm) and communication management systems. SELCAL systems. Antenna couplers and tuning units. Voice conditioning systems. Navigation systems include Doppler, TACAN, VOR, ILS, Marker, DME, R-Nav and OMEGA VLF systems. Ground proximity warning systems (GPWS) for civil aircraft. Sonobuoy homing receivers. Tactical communications and homing systems. Central suppression units. Doppler speed and motion sensors for surface transport systems. Muzzle velocity measurement equipment.

51 Airadio Spares and Service Unit

Repair and overhaul of all types of civil and military airborne communications and radio navigation systems.

52 Airadio Systems Division

Definition, development and integration of complete radio communications and radio navigation systems for air-to-air, air-to-surface and ground-to-air military and civil applications; encryption and decoding systems for secure communications on voice and data link; ECM-resistant systems; transportable ground-air communications stations; automatic and multi-function avionics management systems.

53 Electro-Optical Advanced Systems Division and Future Systems Laboratory

Research, development and production of advanced electro-optical systems for defence and industry. Missile guidance, gathering and tracking systems. Underwater television developments. Signal processing systems for torpedoes and support services such as recovery frames and underwater targets. Image processing systems. Robotic visual inspection systems for industry.

54 Electro-Optical Products Division

Electro-Optical guidance systems for missiles; daylight and low light television and thermal imaging tracking systems for weapon fire control; tracking trials recording and analysis systems; gun boresight television. Fibre optic analogue and digital data transmission systems for vehicle remote control and for video distribution. Solid state imaging sensors; miniature CCD television cameras. Television surveillance systems for hazardous industrial environments. Specialised security surveillance systems, both static and mobile.

55 Electro-Optical Surveillance Division

Electro-Optical Surveillance Division produces thermal imaging and low light television systems for military and civil use. The Division is the prime contractor for Class II Thermal Imaging Common Modules (TICM II) from which a wide variety of thermal imagers can be configured for night vision, weapon aiming and surveillance applications, on land, at sea and in the air. Many of the systems make use of the Division's expertise in steering and stabilisation, command and control, video displays and advanced signal processing. A typical civil system is Heli-Tele, a helicopter-borne surveillance system which can transmit live imagery to fixed and mobile ground stations.

Part 3 products/services guide

Alphabetical index of products with codes indicating their source. The number codes relate to the Divisions listed on the green pages and on Page 6.

(example: 03/51 would mean Aviation Service and Repair Division and Airadio Spares and Service Unit.)

acc - bat

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