



MARCONI HONOURED

The large
screen colour
projector
for flight
simulators
wins 1968
Queen's Award

THE MARCONI COMPANY won a Queen's Award this year—the third in succession—for the large screen colour television projection system for flight simulators. Numbers of these have already been installed, more than half exported, and the majority of those sold in the U.S.A.

The Award was presented on behalf of the Queen by the Lord Lieutenant for Essex, Sir John Ruggles-Brise (above), at a joint ceremony with The English Electric Valve Company in their establishment at Waterhouse Lane.

Representatives of The Marconi Company included a special party from Electro-Optical Systems Division, Basildon, whose equipment won this year's Marconi award for technological innovation. The



PAGE 1: *The Lord Lieutenant for Essex reading the scroll at the presentation of the Queen's Award to The Marconi Company and The English Electric Valve Company. To the right are: the Chairman of The Marconi Company, F. N. Sutherland; the Mayor of Chelmsford, Alderman Ted Wilkes; and the Chairman of The English Electric Valve Company, Sir Gordon Radley*



TOP LEFT: *The large screen colour projector was designed and developed by Marconi's Electro-Optical Systems Division. Here are members of the Division with the Lord Lieutenant. Left to right: M. C. Swain, T. J. Burkett, E. Borysiuk, Sir John Ruggles-Brise, R. Moss, J. Bishop, R. Baitye, S. McFarlane, W. E. Hobbs, W. J. R. Clark, M. Howe, D. A. R. Edwards, J. E. Brace, Manager, E.O.S.D., is partly obscured by Mr. McFarlane*

BOTTOM LEFT: *The Mayor, the Lord Lieutenant, and the Chairman with representatives of The Marconi Company. Left to right: The Mayor of Chelmsford, Alderman Ted Wilkes; L. Owers; K. E. Thomas; Sir John Ruggles-Brise; E. Morley; E. Vernon; J. Andrews; D. Pearse; G. D. Shevel; F. Whybrow; R. Andrews; The Chairman of The Marconi Company, F. N. Sutherland*

Valve Company's award was also won for technological innovation.

'Can you wonder,' said Sir John, 'that both your companies have been cited in the Queen's Award for Industry when your staffs, managements and work people, men of commerce, designers, and craftsmen, have outstanding dedication, skill, loyalty, drive and courage. Marconi's have gained an award for the third year running; only nine companies have achieved this hat-trick. Congratulations Marconi's. Yours is a staggering achievement.

'Congratulations to The English Electric Valve Company on your first award. I can tell you that only fifteen other companies in the whole country have received this year the award for technological innovation, and certainly no other sister companies.

'E.E.V. is now twenty-one years old. In 1947 your company employed just over one hundred people; today there are over 2,000. In 1947 E.E.V. was a small company struggling for survival; today you are Britain's largest manufacturer and exporter of

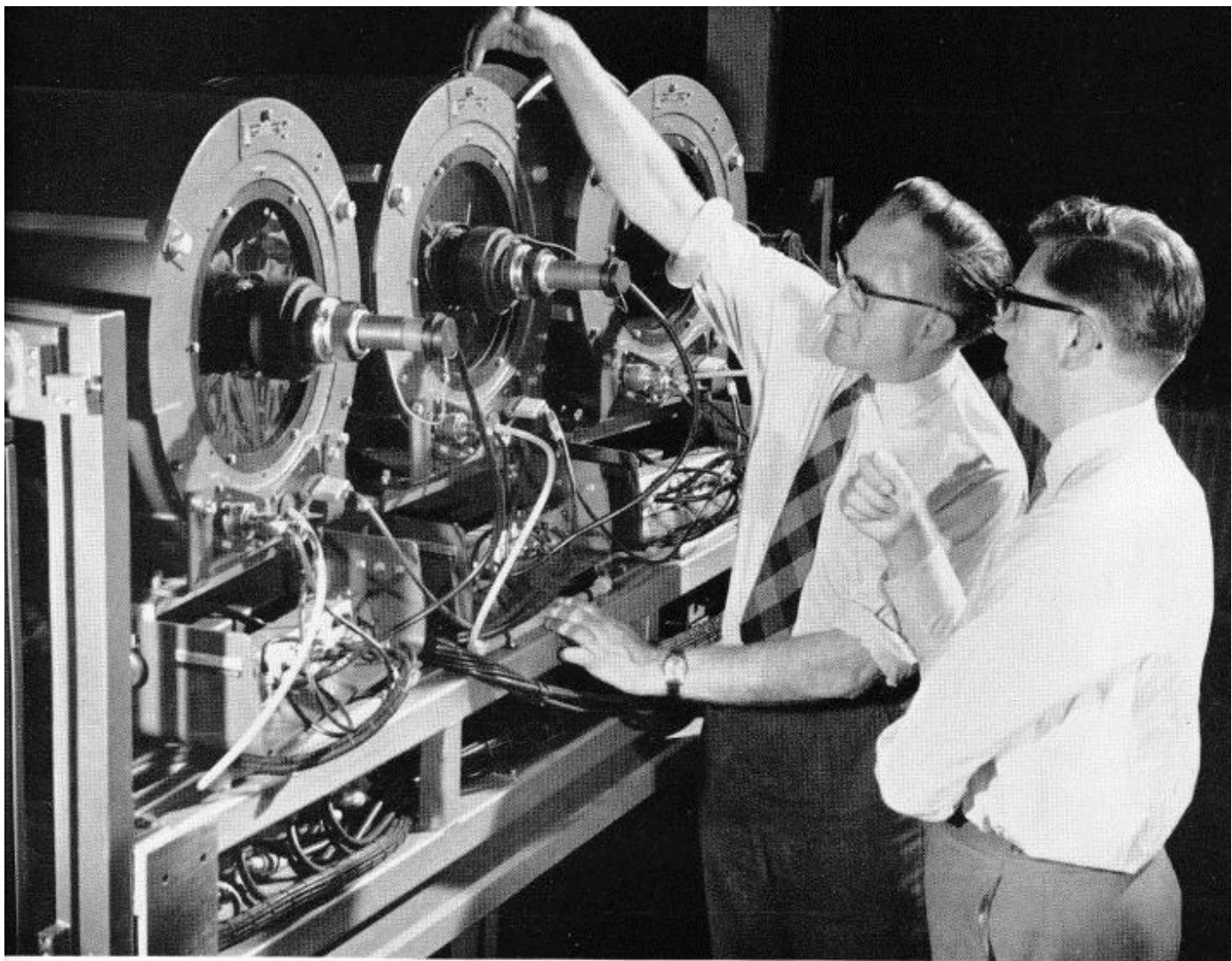
specialized electronic valves and tubes and probably the largest company of its kind outside the United States, with agents in over fifty countries.

'It is a happy coincidence that the Company's twenty-first birthday should have been celebrated by the granting of the Queen's Award to Industry for the image isocon, the latest television camera tube that enables TV pictures to be produced in light conditions so low that an ordinary person would describe them as total darkness.

'The isocon's main applications so far have been for military surveillance and reconnaissance systems, and for x-ray image intensification.

'The security applications of this tube were developed in association with the Royal Aircraft Establishment at Farnborough.

'The x-ray applications were developed by Marconi's associated company, Marconi Instruments Limited. The use of the isocon in x-ray image intensification apparatus developed by Marconi Instruments enables patients to be exposed to x-rays with greater safety margins because much smaller



ABOVE: A large screen colour projector for a flight simulator at Marconi College, showing the red, green and blue projection tubes. Ian Gillespie, Principal Lecturer in Electronics at the College, left, is explaining the equipment to an R.A.F. engineer



dosages will produce acceptable pictures. Indeed, safety margins are such that certain operations may be recorded on cine film or video tape. This would have been impossible with the heavy x-ray dosages required without the isocon apparatus—the patient would have died.

‘The isocon also has very interesting applications in astronomy. Because of its sensitivity it can increase the range of even the smallest telescope and thus make it possible for universities and technical colleges working on limited budgets to do more advanced astronomical research. Now that the U.S. Navy is also very interested in the image isocon it is hoped that exports will rise still further.

‘What a triumph indeed.

‘Now for Marconi’s award, this time for the large screen colour television projection system for flight simulators.

Mr. Telford and Mr. Sutherland with Mr. Whybrow, Secretary of the Staff Committee, and Mr. Shevel, Chairman of the Staff Committee, who is standing behind Mr. Whybrow

New company

ENGLISH ELECTRIC AND G.E.C. ARE NOW MERGED

The Scheme of Arrangement for the merger between English Electric and General Electric was sanctioned by the High Court on Friday, 29 November, and is now effective.

At meetings in London earlier in November the shareholders of both English Electric and General Electric approved the scheme, and also approved the necessary resolutions to implement the merger.

The title of the new company is The General Electric and English Electric Companies Limited.

More Autotest

A FURTHER order for M.I. 'Autotest' systems, worth approximately £22,000, has been placed by Marconi. Since December 1967 eight of these systems have been installed at Basildon where they are used for testing pulse code modulation terminal units. Dramatic savings in the time and cost of testing p.c.m. units have resulted from the use of 'Autotest'.

Apart from its low cost, probably the most significant advantage of this programmable, automatic equipment is its extreme flexibility. At the 'Electronica 68' exhibition, Munich, M.I. featured the 'Autotest' system which measures the d.c. potential at many points on printed circuit boards. The equipment comprises a controller, the instrumentation and digitizing assembly, and the test jig. Program input data is in the form of punched-paper tape.

The whole of the December issue of *Marconi Instrumentation* consists of technical articles describing 'Autotest', with a foreword by David Bisset, Chief Designer, 'Autotest' Group.

The recent appointment of Barrie Dey as Marketing Manager for automatic test systems marks an active sales programme both in the U.K. and in those overseas countries where 'Autotest' should rapidly achieve a major market.

MARCONI HONOURED *continued*

'Aircraft operators, both civil and military, are constantly striving to increase safety margins while, at the same time, reducing costs wherever possible.

'In the area of aircrew training, the latest type of flight simulator can provide experience comparable with that of actual flying but with greater safety to both the pupil and aircraft and at considerably lower cost.

'The Marconi large screen colour television projection system takes simulator training an important stage further towards complete realism. It combines high picture quality and long-term reliability with a remarkably high immunity to mechanical shock and vibration making it possible, for the first time, to combine a full colour simulation of the pilot's view of an airfield and the surrounding countryside with the motion of the aircraft.

'How justly proud you can both be of your achievements. How justly proud Essex and Chelmsford are of you all. Our nation thanks you for your contributions to her prosperity.

'May these awards bring you continued success.'

Another stage in the production of 'Autotest' at M.I. Tony Gibbons, senior test technician, makes a check on a data highway board with an M.I. oscilloscope

