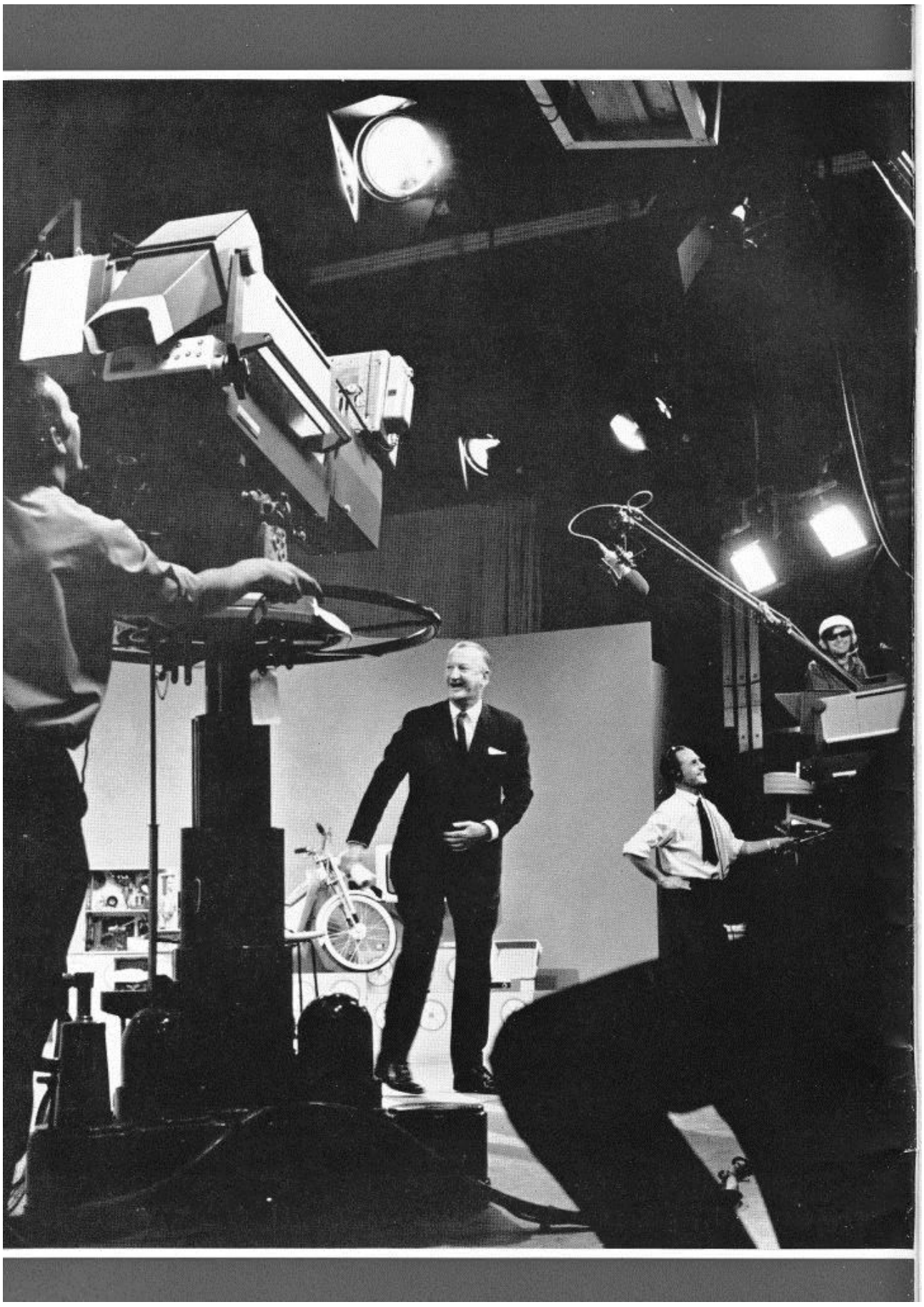

Marconi

The Marconi Companies and Their People

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St. Mary's House, Victoria Road,
Chelmsford

Printed by
Benham and Company Limited, Colchester

Member of GEC–Marconi Electronics Limited

THE QUEEN'S AWARD TO INDUSTRY
1966 1967 1968 1969

Vol. 20 No. 4 November 1969

Contents

COVER: *Programmed equipment is very much a feature of M.I. Machine Shop. Here is a Habegger electro-hydraulic capstan lathe operated by plug-board. It is being checked during the machining of a gear carriage for a Marconi Instruments modulation meter, TF2300, by John Parrott who joined M.I. at St. Albans nineteen years ago*

LEFT: *Marconi has played a leading role in the new colour and u.h.f. service due to start on 15 November. The Company has designed, built and installed many of the production systems and transmitters for the new service. At Southern Independent Television their new centre is now fully equipped for colour using Mark VIIB cameras throughout its four production studios. Here is Michael Miles in Studio One appearing in the first edition of Southern ITV's new networked quiz series 'Wheel of Fortune' which was seen by viewers throughout Britain a few weeks ago. See 'The Big Switch to Colour', page 2* [*Southern TV photo*]

More room at the club

The extension of the M.A.S.C. clubrooms at Beehive Lane is going ahead, and will be ready by 30 November when Mr. Telford himself will inaugurate the enlarged hall and lounge. For the occasion there will be a special evening's entertainment featuring Roy Castle. The extensions will provide, in all, an extra 2,200 square feet of floor space. Fifteen feet has been added to the front of the hall to make a dance lounge, the actual dance-floor remaining the same size. New front windows are being put in and the original ones will be removed. Twenty-eight feet has been added to the main lounge and a double-sided bar has been put in between the hall and the lounge.

Marconi Building and Facilities Group, Crompton Works, have handled the design and liaison work with the contractors, and here with the plans at Beehive Lane are, left to right, Peter Barker, Surveyor; Chris Williams trainee Building Surveyor; and Eddie Miller, Clerk of the Works.

THE BIG SWITCH TO COLOUR

Tomorrow, 15 November, will be an historic day for broadcasting, as it will mark a revolutionary step forward in British television. The 15 November is the day that the Independent Television Authority officially switch to full-colour operation on u.h.f., using 625 lines, and the B.B.C., who already operate a u.h.f. service—B.B.C. 2—will start transmitting B.B.C. 1 on u.h.f. Both B.B.C. and I.T.A. will, nevertheless, continue a normal service on 405 line v.h.f. for about ten years.

Marconi has played a leading role in the formation of this new television era for, not only has it supplied many new transmitters required for u.h.f. operation, but has been concerned with installing production and studio equipment for many of the ITV colour production companies dotted throughout the British Isles.

Southern Independent Television

At Southampton, Southern Independent Television, who provide programmes for the central southern area and south-east area of England, have built a new colour production centre at a total cost of £2,500,000 on land reclaimed from the River Itchen. Marconi won a contract worth approximately £500,000 to assist in planning and to manufacture many of the systems for the centre including thirteen Mark VIIB colour cameras.

Our two engineers responsible for the installation there are Ian Rogers and Dave Percy. Ian says that planning for the installation at the centre was done to a tight schedule by the I.D.O. at Chelmsford. 'Without the backup of the staff at Chelmsford we would never have met our deadline', he says.

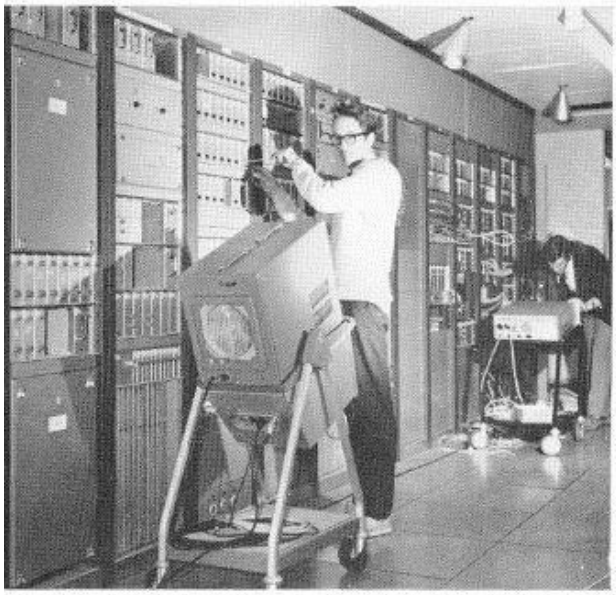
ABOVE RIGHT: *Southern TV's new studio centre which was built and equipped at a total cost of £2,500,000. It is built on land reclaimed from the River Itchen, adjoining the old studio centre* [*Southern TV photo*]

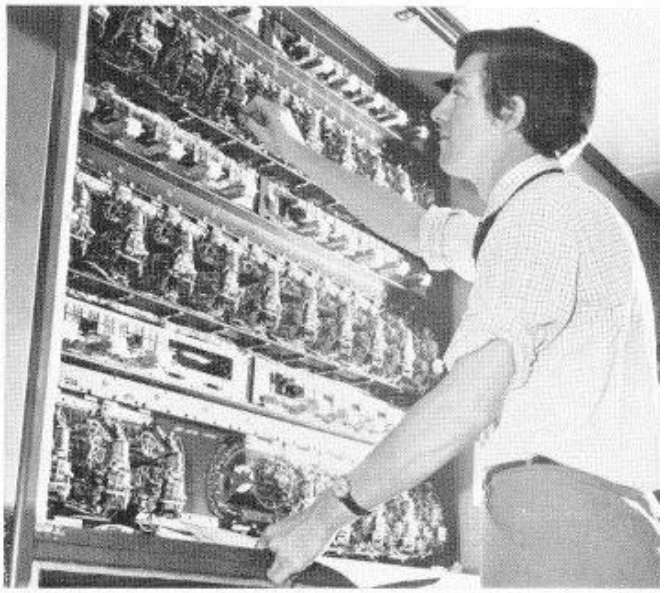
LEFT: *Southern Independent Television Centre's master presentation control console. The presentation director decides which picture is to go out of the station for transmission at the Dover or Isle of Wight transmitters or to be fed into the main network line, while the engineering manager watches the output quality on the waveform monitor. At the console here is Southern's master control engineer Ivor Worsley*

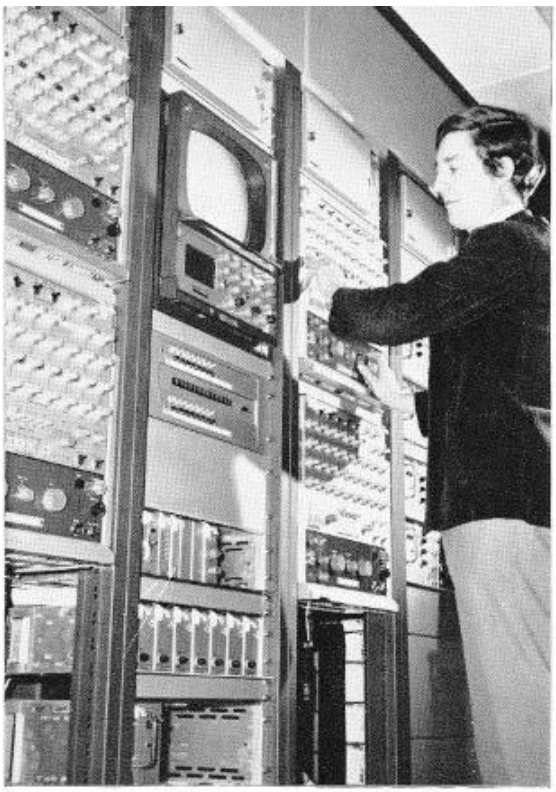
BELOW LEFT: *The Marconi master presentation switcher and vision mixer. Here the transmission controller or production controller can select and start video tape recorders or telecine machines and mix in outputs from any studio being used ready for transmission. He can also send test signals down the line to the transmitters for engineering purposes when the station is 'Off Air'. Ian Rogers is discussing one of the many facilities available on the switcher to Southern's transmission controller Peter Pritchard-Brown*

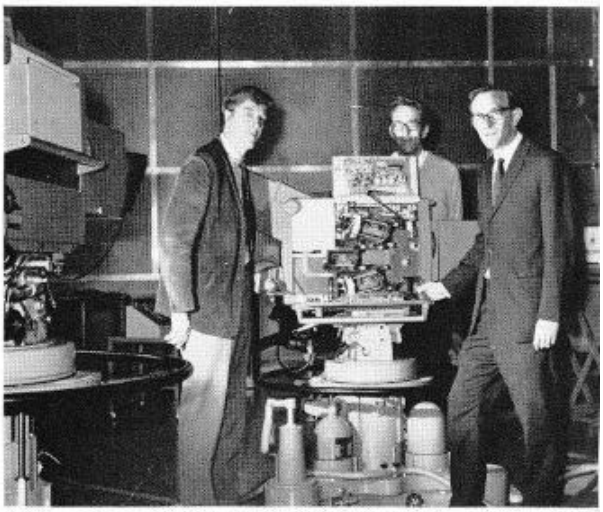
BELOW CENTRE: *The central apparatus room where all engineering work is done. Here Dave Percy, left, is setting up presentation amplifiers while Ian Rogers, seen in the background, is using a vector scope to set up the colour coder which accepts the signals obtained from the colour camera and combines them into the form required by the P.A.L. system*

BELOW RIGHT: *The assignment switcher via which all video talk-back and audio signals are routed around the complete station*









BELOW: *During the production of 'Houseparty' a weekly magazine for women, in Studio One. This was the first production to be done in the new studio centre at Southern* [*Southern TV Photo*]

FAR LEFT: *Four Mark VII camera control units (C.C.U.) for the cameras in Studio One. Ian Rogers is setting up one of them with the aid of the Mark V picture and waveform monitor mounted in the centre rack*

LEFT: *Studio One, Southampton, is equipped with four Marconi Mark VIIB colour cameras. This is the largest studio at Southern, having a total floor space of 6,000 sq. ft. With one of the cameras are Ian Rogers, Dave Percy and Mr. Basil Bultitude, the station's Chief Engineer*

'Our job was to install television systems which included the presentation switcher, which provides cutting and mixing facilities between its twenty-four video and audio inputs; the sound and vision monitoring of the master control; the sync. pulse generators; the machine assignment switcher, which routes all signals around the centre; and all the ancillary equipment used in conjunction with the Mark VII cameras. 'The master presentation control is unique', says Ian. 'Southern TV have to provide outputs for both their Dover and Isle of Wight transmitters, and as local news varies for each we had to design a switcher which could control two programmes simultaneously.'

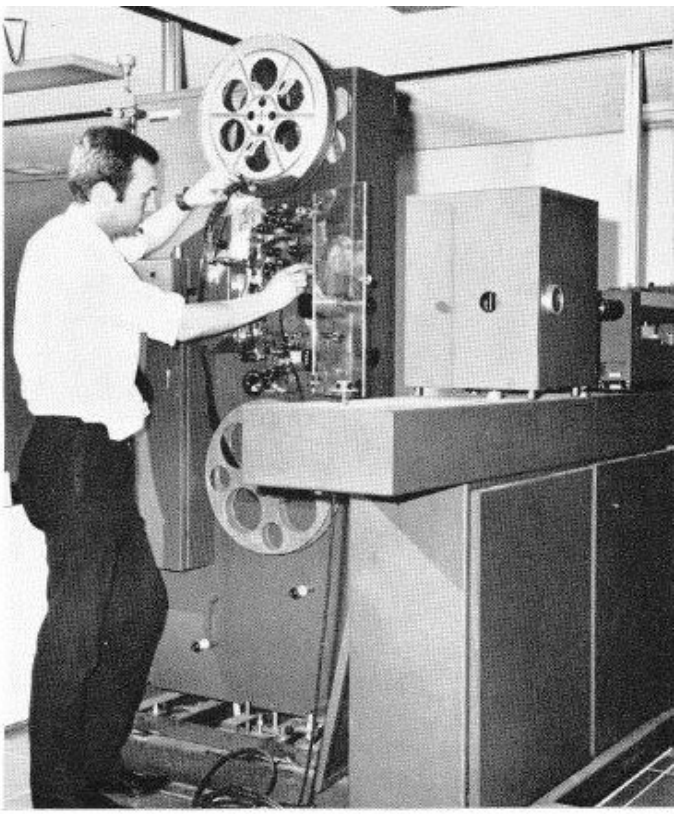
The centre has four production studios. Studio One, the largest consisting of 6,000 sq. ft. of floor space, has four Mark VII cameras; Studio Two, 3,000 sq. ft., has four; Studio Three, 1,200 sq. ft., has three; and Studio Four, a small 350 sq. ft. presentation studio used for announcements, news and weather, has one on a servo pan and tilt head.

The Southern production crews moved into the new centre in August to start using some of the facilities that were, at the time, available, and the first programme to go out was *Houseparty*, a weekly women's magazine. *Day By Day*, a local news and events programme, now goes out daily from Studio One, and *Wheel of Fortune*, a new Michael Miles quiz show, is video taped there ready for networking.

Later this year four Mark VII cameras will be installed in Southern's Outside Broadcast Unit and complementing the new studio centre will provide full colour coverage of many local events.

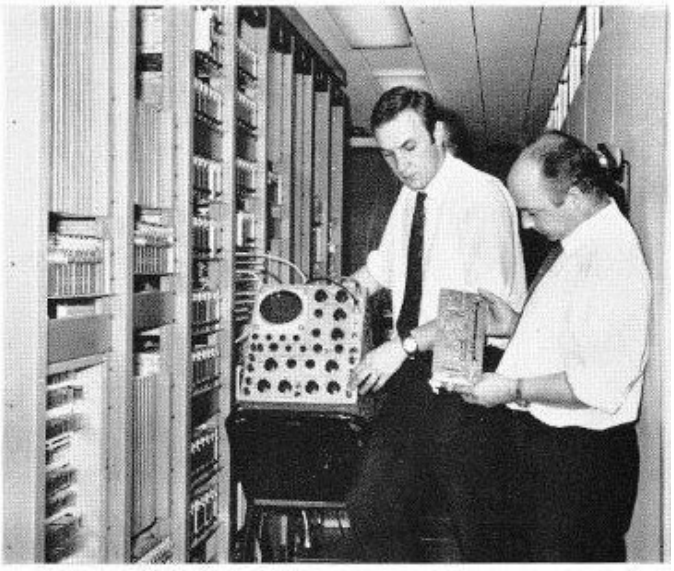
ATV Network

At Birmingham, Marconi engineers Sean Metcalf and Les Radley have been working on the Associated Television Network colour installation at Paradise Centre. This is a vast entertainment complex which

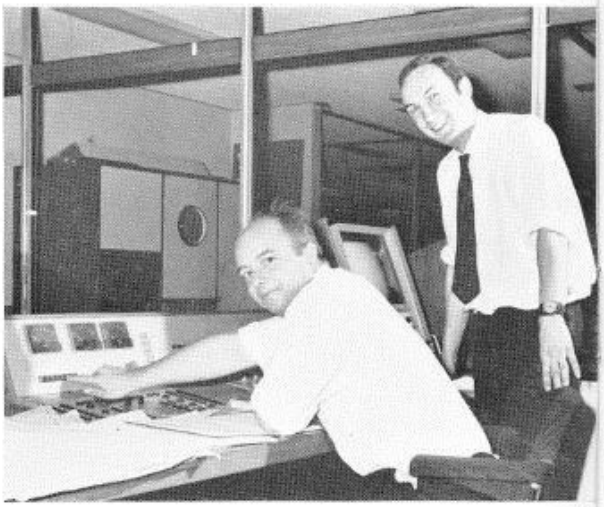


Sean Metcalf threads a test loop into the gate of the Mark VII 35 mm colour telecine projector. The camera will be mounted on the table in the foreground

Part of the central apparatus room at Paradise Centre, Birmingham, where all engineering aspects of the station take place. Sean Metcalf and Les Radley, our engineers responsible for the complete station installation, inspect one of the numerous Marconi video output amplifiers which are housed in the 7 ft. racks on the left. The oscilloscope is monitoring a test signal being 'sent down the line' by the G.P.O. prior to sending live signals from an O.B. unit for recording

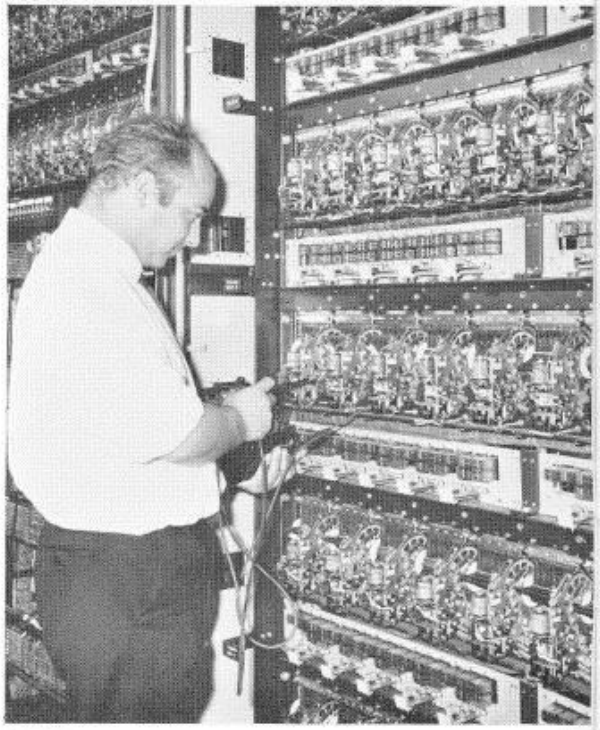


One of the contract wiremen lifts computer floor tiles to reveal some of the cables which carry video, audio, and other electrical sources throughout the station. He uses a special suction lifting pad for speed



The master and network control console. This is where the station's master-controller will sit to monitor, preview and switch all outgoing signals. The G.P.O. receive the outgoing programmes from here via their land-lines, and connect them to the main Independent Television Network at Birmingham's Post Office Tower

Signal routing, both video and audio, for the complete ATV station complex takes place here on the assignment switcher. Outside broadcast units, video tape and telecine machines are directed to wherever they are needed via the remotely controlled uniselectors. Here Les Radley is checking the circuitry of one of the selector banks



when complete will not only house a television centre, but a theatre, two cinemas, an exhibition hall, a multi-storey car park and a de luxe hotel. 'We had to produce a four studio colour centre incorporating ten telecine machines and eight video tape recorders to replace the existing monochrome studios at Aston', says Sean. Planning started in July last year at Chelmsford, and close collaboration with ATV engineers ensured that it was designed and planned to exact customer specification. 'Les and I were involved in all areas of the centre. Our contract wiremen, who we technically supervised, laid over 250 miles of video, audio and switching cables under the computer flooring between all facilities and consoles, while engineers from other equipment suppliers installed their own units into the racks. Our main area was the central apparatus room (C.A.R.) where we installed a Mark VII 35 mm colour telecine machine, master network control and assignment switcher.'

By 8 September master control, assignment switcher and telecine and video tape facilities were complete and the ATV engineers moved in and were able to send 625 line signals down the line to the G.P.O. tower at Birmingham.

When the station is finally complete next year the theatre in Paradise Centre will be fully wired and equipped, for television recording, and the 11,000 sq. ft. of studio floor will be used to produce programmes for local and network sources, such as *The Golden Shot*, a popular light-entertainment show, and *The Tingha and Tucker Club*, a puppet programme for children.

In the August issue of this magazine we showed installation work going on at I.T.N., the company which provides daily programmes of national and international news to all stations throughout the Independent Television network. Dave Perkins and Ron Huntsman, our engineers there, have made good progress since then and one of the studios has been used for monochrome news production for some time. Signals were sent from the centre as 625 line and converted at the transmitter to 405 line v.h.f. On 15 November they will be directly transmitted as 625 line P.A.L.

Marconi television is also playing a leading role for Tyne Tees, Granada, and Yorkshire Television.

Tyne Tees

At Tyne Tees the second phase of the colour conversion involved the re-building of Studio One control suite to handle colour cameras, and the building of an air-conditioned central apparatus room to house all the colour engineering units. In the studios themselves six Mark VII cameras and four Mark VI monochrome cameras all with 'hands off' vision control will be used. In their outside broadcast division they have one mobile control room and nine other vehicles using four Mark VII and one Mark VI with colour synthesizer for caption work.

Granada

Martin Clarke is our installation engineer at Granada Television, Manchester. This centre built on a 5-acre site is a landmark in the heart of Manchester's new city-centre re-development. It was the first building in Britain specifically designed for television when it first went on the air in May 1956, and now is undergoing a full conversion to u.h.f. and colour production. Martin is at present working on another phase of the conversion, and on 15 November the studios already re-equipped will start production in colour.

Towering high above the roof tops of the city centre is Birmingham's Post Office Tower, as seen from the roof of Paradise Centre. The G.P.O. switch and interplug their land-lines for ATV at the tower, and Les Radley worked there for some time installing an assignment switcher before he joined Sean at ATV

Yorkshire

For Yorkshire Television a Leeds studio complex has been designed specifically for colour, and has been constructed on a 7-acre site between Kirkstall Road and Burley Road in Leeds. The centre incorporates production and technical areas together with admin. offices in a self-contained unit. All technical equipment in the studio and control areas has full colour capabilities. There are two small presentation studios which share a single Mark VII camera channel, and the main production ones have a total of seven. In addition, six telecine machines are installed, three being Mark VIIs. Yorkshire's O.B. unit employs two vehicles, each using four Mark VII cameras and one Marconi monochrome unit, all of which can be used in conjunction with a mobile video tape machine.

With the introduction of colour services on u.h.f. the need for engineers with knowledge and experience in this field has considerably increased. To meet this demand Marconi College started a series of courses and students and engineers from both overseas and our own television companies are taking full advantage of the training available.

Thus Marconi planning, development, installation and training services have led to the success of colour television, and in the months ahead we shall see this for ourselves.