

Glasgow Studio 1 Refurbished

Glasgow Studio 1 returned to full service in December after refurbishment, coinciding with the 50th anniversary of the Scottish Symphony Orchestra. The studio boasts a new control room, solo instrument annex and improved acoustic treatment. Part of the refurbishment included the restoration of the audience lobby, which was restored to its pre-war elegance.



Studio 1 entered service in November 1938, being an addition to the Queen Margaret Building formerly a medical college which produced the first female doctor. Apart from updating the control desk and associated audio processing equipment, nothing has been done to the fabric of the studio since then. Used mainly for orchestral and audience shows, the main change as a result of this refurbishment was the removal of the choir rostrum and restoration of the wooden floor. Gone is the old wooden wall panelling which was designed "to give the best conditions for the type of programme" (Engineering Information No 7, September 1938). In its place, modern panelling has been installed to the same

criteria, and the previously satisfactory acoustics, have been preserved with little noticeable difference.

To accommodate the new mixing desk, it was necessary to build a new control cubicle. With no space available in BH, a three-storey extension to the studio was built to house new air-conditioning plant, an instrument store, a recording channel and the control cubicle.

In keeping with other music studios, the control cubicle has been equipped with a 48 channel Solid State Logic SL4000E multitrack desk, though not yet provided with its automation computer. Three Studer A80 twin-track tape machines and a gram deck have been installed, along with a Lyrec multitrack tape machine with remote control, previously housed in an OB vehicle. The control cubicle is also equipped with AMS RMX16 and EMT.244 digital reverberation units and an AMS DMX15-80/S along with Lexicon PCM41 digital delay units. Quality audio monitoring is via LS5/8's and provision has been made for studio visual monitoring using a Sony CCTV system.



The restored audience lobby at Queen Margaret Building, Glasgow

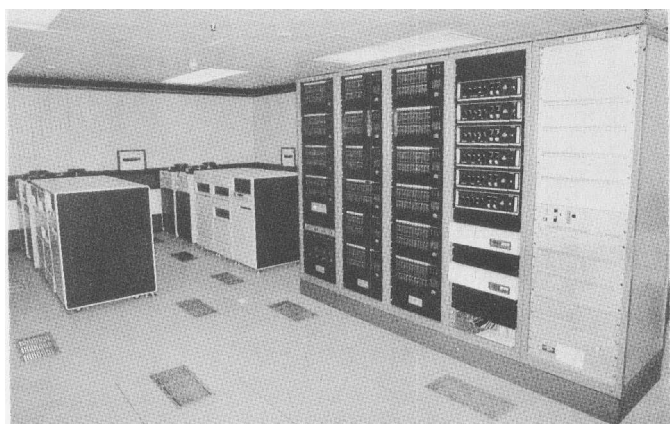
MSS Into Full Service

The BBC's new message switching system (MSS) was put into service on November 3rd, 1985. This replaces the old ADX system which had been in service from 1970. Since March 1984, however, a temporary installation had been in use after the failure of the ADX hardware, and pending completion of the software for the final MSS system.

The MSS provides a store and forwarding service for textual messages between any terminals connected to it. Simple address-codes added to the top of messages instruct the MSS as to where they should be sent. The MSS is used for many different purposes. News items are distributed this way to newsrooms and local radio stations, booking schedules are sent to control-rooms and transmitter fault reports from MICs are sent to studio centres. In addition, the Telex connections enable messages to be exchanged with UK and overseas organisations for such things as travel, shipping of goods, and orders for equipment.

The computers which support the MSS are located in the lower-ground floor of Broadcasting House. They consist of six DEC PDP 11/44s, each equipped with 1 megabyte of memory, dual 67 megabyte exchangeable disc-drives, and multiple input and output interfaces. The processors are interconnected via a high speed bus, so that as far as the user is concerned the system behaves as if it were a single computer.

The computer room is situated on the



General View of MSS computer room

opposite side of the building from the Central Telecommunications Area (ATA), whence data-circuits to the MSS users within the BBC are distributed. Connections between these two areas is made using individual limited-distance modems for each circuit. At present there are about 400 of these, although the present capacity of the MSS is 312 two-way lines. Sufficient space has been allowed in the

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Transmitters Opened

The following transmitters have opened or changed since October:-

Uhf Television

| | |
|--------------------|-------------------|
| Austwick | N Yorks |
| Cefn-Mawr | Clwyd |
| Trefechan | Mid Glamorgan |
| Broughton | Borders |
| Aveton Gifford | Devon |
| Dunsford | Devon |
| Hope-under-Dinmore | Hereford & Worcs |
| Winshill | Staffs |
| Falstone | Northumberland |
| Ferryside | Dyfed |
| Middleton | Gtr Manchester |
| Brailes | Warwicks |
| Muldonagh | Co Londonderry |
| Claudy | Co Londonderry |
| Hammersmith | London, W6 |
| Llangurig | Powys |
| Elton | Cheshire |
| Sutton Coldfield | new uhf aerial |
| Black Hill | new uhf aerial |
| Mynydd Emroch | extended coverage |
| Caterham | extended coverage |
| Blaenau Gwent | extended coverage |

Vhf radio

| | |
|------------|--------|
| Llanddona | Stereo |
| Llangollen | Stereo |

Local Radio Frequency Changes

| | |
|--------------|-------------|
| Radio Kent | Swingate |
| Radio Sussex | Heathfield |
| Radio Sussex | Reigate |
| R York | Acklam Wold |

MF : New Transmitters

| | |
|--------------|--------|
| Radio Wales. | Forden |
|--------------|--------|

New North East Regional Headquarters

The first phase of the new North East regional headquarters in Newcastle came to fruition in November when the buildings on the Fenham Barracks site were accepted. As yet, they are technically empty shells, although heating, lighting, air-conditioning and the other usual services are already connected.

Designed entirely in-house by ACED and SCPD, the new headquarters will provide over 5,000 square metres of accommodation on two floors, including a 219 square metre Television studio.

Of striking appearance, the building employs a steel frame with external walls clad with vitreous enamelled steel insulated panels. Double glazed reflective glass cladding is employed for the reception and restaurant areas at the front.

Great care has been taken to achieve the high degree of acoustic separation essential for the effective operation of the studios. The mechanical services installation incorporates advanced computer monitoring.

As well as providing modern technical facilities for broadcasting, a good deal of attention has been paid to the internal working environment. The entrance and reception areas on the ground floor, and restaurant on the first floor, have been enhanced by the introduction of three large rooflights which allow

shafts of daylight to reach deep into the heart of the building. Materials have been selected which conform to the technological image of the exterior but still allow scope for workspaces to be personalised.

In addition, on completion of the project there will be extensive landscaping to provide a pleasant setting and outlooks not only towards the town moor opposite, but also across the site itself.

The installation of new studios for Radio Newcastle is the first sign of technical life on the site, with Mark III stereo desks forming the heart of the complex. This work will continue until the studios are fully operational in May 1986.

Two new television studios, A and B, will replace those currently crammed into the old converted lying-in hospital in Newcastle city centre. Studio A, will have a floor area of 219 square metres, and will be used as the main studio for regional opt-outs, features, and servicing the network: Studio B, being much smaller at 38 square metres, will be used for presentation, Breakfast Time, and Lunchtime News inserts; it can also double as a post production area and for dubbing, with simple sypher facilities.

The television system contract has been

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The Fenham Barracks site, the new home for BBC operations In the North-East.

New Triax Cable

With the introduction of the new generation of studio and lightweight 'triax-fed' cameras, it became apparent that there would be a need for a new camera cable for studio use.

The initial thoughts were that the cable would be based on standard triax, but would incorporate additional conductors to provide facilities not usually available on a lightweight camera and which would be needed in a production studio. The cable would be sheathed overall with a heavy duty PVC sheath (similar to PIF36/1MD cable) of controlled diameter, because this will not get trapped under studio pedestals.

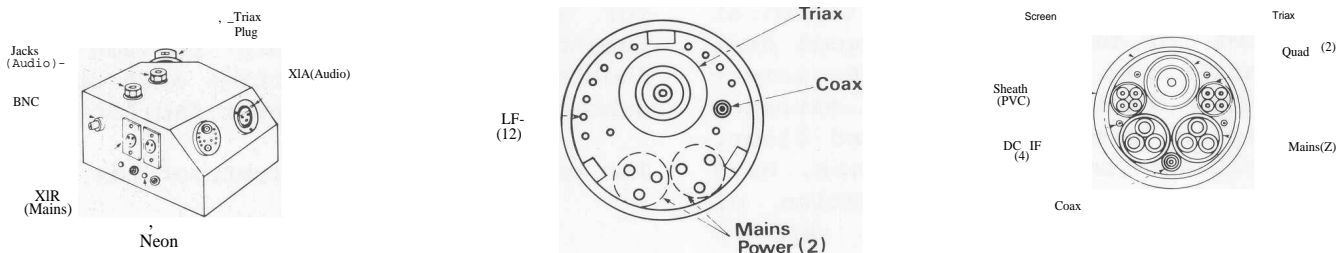
Discussion showed that this cable could be used to advantage, because the optimum diameter allows two sources of standard mains supplies to be made available at the camera head, enabling the powering of auto-cue, headlamps, etc., to be achieved on the studio floor. A diagram depicting the cross section of the cable, designated PIF20/1M, is shown. All elements

are individually screened.

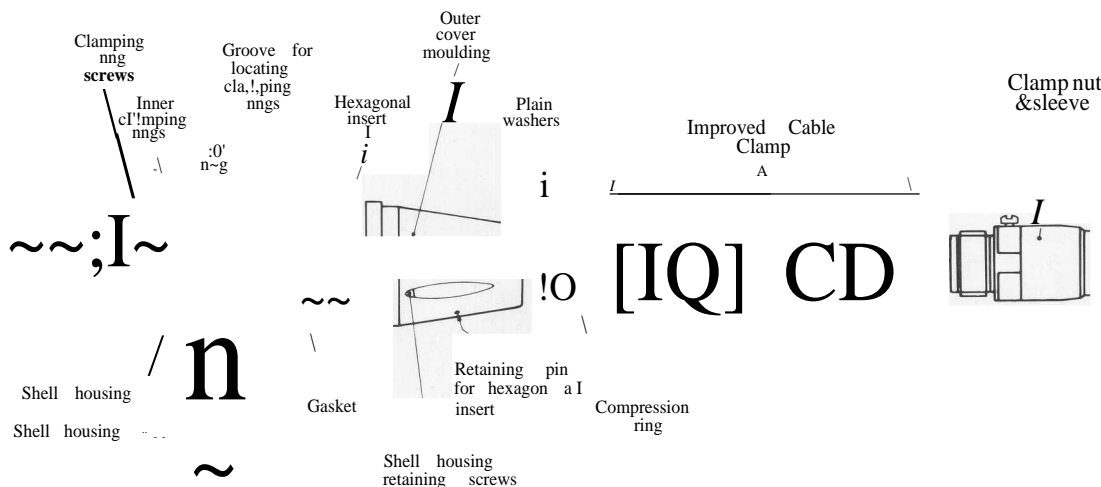
Because there was no commercial connector that would accommodate the proposed cable, it was agreed that for studio applications the TV36 style connector would be the most suitable. A design was agreed, after discussion with connector manufacturers, based on the TV36 shell, but with a new contact insert. The contact layout and general assembly are shown.

To enable this cable-connector assembly to be used with a studio camera it is necessary to provide an interface (splitter) box, coded EP5/522, mounted on to a studio pedestal, (with, for instance, a Link 130 camera). The same splitter box will be used with lightweight cameras, either strapped to a lightweight mount with a webbing belt, or a stand-alone unit (rather like a spider box).

The cable, connectors and splitter box are available from Equipment Department. It is likely that the first studio equipped with the new cable system, will be Glasgow Studio A, followed by Leeds in mid-86.



The interface box, (left), and contact layouts for the new triax cable. An improved cable clamp is shown below.



60 Years of Transport

On the 4th November 1925, the Control Committee of the British Broadcasting Company approved the purchase of Morris Cowley cars for all main stations.

It is interesting to note that the Chief Engineer was instructed to prepare regulations to include log books, supervision and maintenance of the vehicles.

The Corporation recognised that it had a fleet of vehicles around 1932 and the earliest records show that a Morris Van, Reg.No. GY 9335 was purchased on 18th September 1932 at a cost of £270.00. It was subsequently sold for £80.00 in 1944.

To mark 60 years of Corporation Transport, Equipment Department have made a

405 Line Converter Removed

Nigel Philips and Graham Hill examine the only 405 to 625-line electronic standards converter ever built. It will shortly be removed from the Central Apparatus Room in TVC, where it had been used for the conversion of archive material.

The history of this machine is not clear, though it is thought to have entered service in 1966, along with several 625 to 405-line converters. Originally known as SCV4 (1-3 were optical) it latterly became known as LS1. It was probably made by Designs Department, and was used in it's early days for converting 405-line vt material into 625-lines for transmission on BBC2. There was also a stage when Network Control Room 1 had been converted for 625-line working, and ~ 625 to 405 converter was on the output. This sometimes meant a double conversion for the 405 network - not to be recommended.

At some point in its career, SCV4 was removed from TVC and sent to Cardiff (on holiday?). It was cheaper to do this than have the Welsh-language schools programmes converted in London.

The 405 to 625 conversion process is not lost forever, though. Graham Hill has modified several processing boards which, when used in the DD ACE four-field converter, allow "normal service to be resumed". The quality of pictures from

minature of a 1925 "Model A Ford" in the livery of yesteryear. The minature was produced with the assistance of BBC Enterprises and Matchbox Toys, who will market a similar model through their toy outlets.

the ACE converter are a great improvement on the old equipment.

(If anyone has documented details about the converter SCV4/LS1, the editor will be pleased to set the record straight).