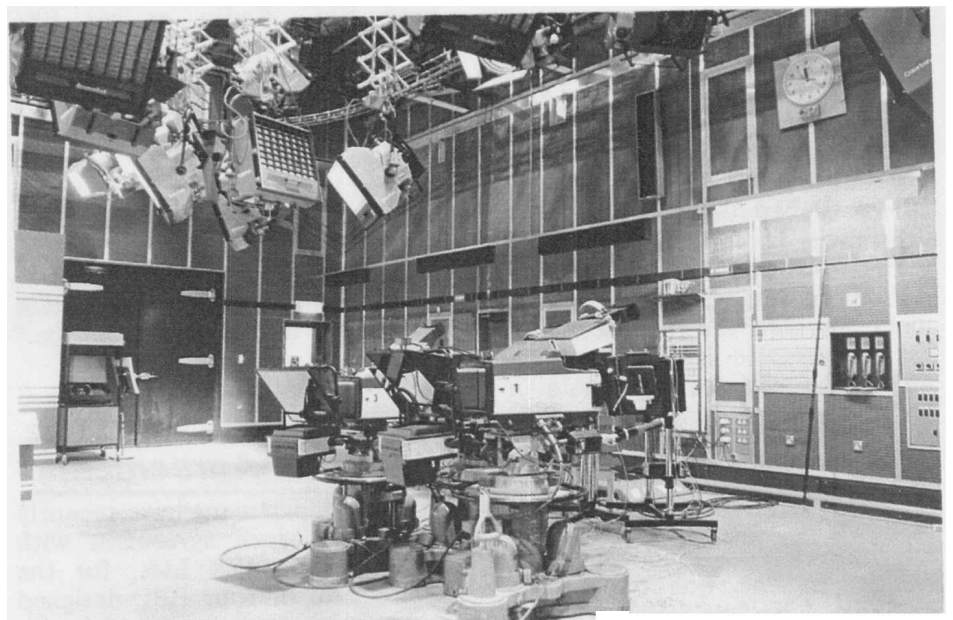


New Studio Complex Opened in Belfast

BBC Northern Ireland's first purpose built broadcast television studio was officially opened by BBC Chairman Stuart Young and National Governor Lady Faulkner as part of the Region's 60th Anniversary Celebrations.

The television studio is part of a new complex, housing tv continuity, videotape and teletext suites, make-up, dressing rooms, scenery transit area as well as a second smaller television studio. The complex covers nearly a third of the area of the BBC Northern Ireland centre in Ormeau Avenue, Belfast.

The larger television studio, B, has a floor area of about 200 sq m, and is unusual in that most of the technical facilities are on one wall, allowing more of the floor area to be usefully employed for productions. Three Link 125 cameras, with facilities for a fourth, have been installed in the studio. Some of the Colortran luminaires have been suspended

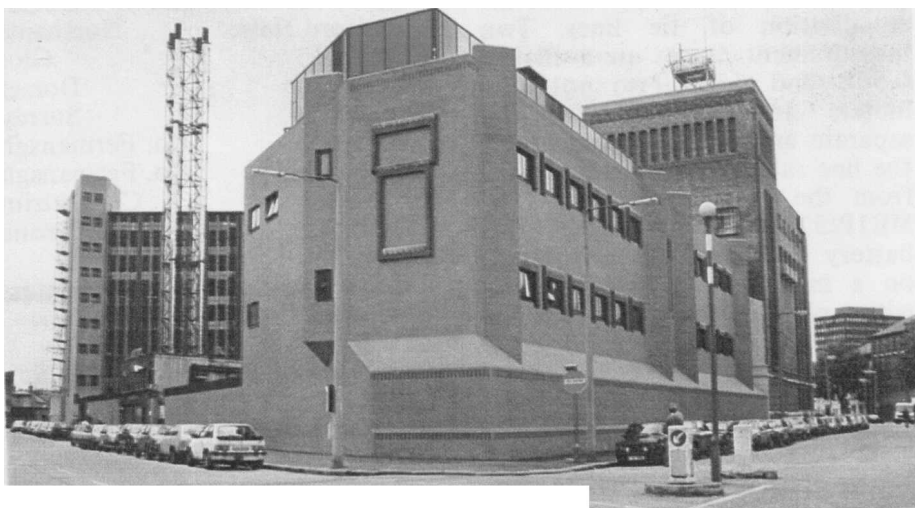


Belfast studio B

from a new motorised traversing pantograph built by Colortran to a SCPD design.

The vision and lighting control room for studio B has been combined with the production control room. A sixteen-channel Cox T16 vision mixer has been installed, together with a 120-way Dynamic Technology 'Datalite' lighting console. A Neve twenty eight-channel desk has been installed in the sound control room, with monitoring via LS5/8 loudspeakers.

The smaller studio, C, uses a single Link 125 camera for local news contributions. The floor area is some 35 sq m, and, like studio B, it has Colortran luminaires plus a twenty-way DTL lighting console. The vision mixer comprises a Cox T16 sixteen-channel desk, with sound being handled by a twelve-channel Neve desk.



The new television complex in Belfast

continued on page 2

Editorial

Licences fee application

As you will have read elsewhere, the BBC has made an application, for an increase in the colour television licence fee to £65. Part of the justification for the increase is the need for capital investment, an area that effects most departments in Engineering Division. I reproduce below the case for continued capital investment taken from BBC Information's "Background to the BBC's Licence Fee Application."

Capital Expenditure

"The BBC has been unable to raise significantly the level of its capital investment programme during the past 3 years. It continues to suffer from the effects of Government expenditure controls imposed during the 1970s. The result is a substantial backlog of investment that needs to be undertaken.

Worn-out plant and equipment threaten the high standards that viewers and listeners expect - unless the BBC can maintain investment at a reasonable level.

New technology - ranging from the applications of digital techniques to the development of lightweight portable electronic television cameras - can contribute greatly to the quality of programmes. The BBC believes that it must provide its creative staff with the means to remain in the forefront of broadcasting.

In addition to the replacement of worn-out plant and provision for new technology, capital expenditure in Television includes the completion of the Television Centre at the White City in London. This will eventually embody a new Television Theatre, replacing the obsolete building at Shepherd's Bush Green. Building replacements outside London include a new post-production block at Bristol, new broadcasting centres for the North-East and South Regions and improved facilities in Belfast, Cardiff, Bangor and Glasgow.

Radio's capital expenditure requirements include replacement of worn-out plant in London, the Regions and Local Radio and provision for a start to be made on a new Broadcasting Centre on the

site of The Langham in Central London.

Broadcasting House is now over 50 years old and totally unsuited to the needs of modern broadcasting especially the production of high quality VHF stereo programmes.

The building of a new Broadcasting Centre will enable the BBC to rationalise the whole of its accommodation in Central London, allowing 21 leasehold premises to be surrendered. It is planned also to build a new Broadcasting Centre in Edinburgh, replacing the collection of converted houses currently - and inefficiently - in use.

There are areas of the United Kingdom where people still cannot hear BBC Radio or see BBC Television programmes adequately. Radio capital expenditure also provides for the creation of a separate VHF network for Radio 1, together with a VHF network to enable Radio 4 to be heard in Scotland, Wales and Northern Ireland. New transmitters are also planned to bring VHF signals to the 3 million listeners in the UK currently denied this service."

Alan Lafferty

Licence Agreements

Designs Department have recently signed a licence agreement with Avitel Electronics Ltd., for the production of four BBC designed test equipments.

The MEIP/520 level measuring meter is designed to work with the colour calibrator UN1/509 to measure the insertion loss of circuits and equipment at line and colour subcarrier frequencies. The primary use of the meter is for the equalisation of tie lines. Two measurement ranges are available; 0.5dB and 6dB. Two potentiometers are provided for the separate amplitude adjustment of the line rate and subcarrier signals from the colour calibrator. The MEIP/520 is mains powered with battery back-up. It is constructed on a modified CH1/64B chassis with plastic top and bottom covers.

The ME3M/502 television waveform analyser is a self contained measurement set, designed to measure video waveform parameters. It will measure either the ITS or line repetitive test waveforms.

The UN 1/75A amplitude measuring unit is a video signal measuring unit, developed for use at television studios and control centres, and is used with an oscilloscope for accurate measurement of amplitude, coder and oscilloscope calibration.

Belfast Studio

continued from page 1

The television continuity includes a comprehensive Cox special mixer, Rank Cintel MK7 slide scanner, Aston 3 character generator and separate network and clock logos; switching, as in the whole complex, is handled by a NTP router. The continuity has facilities to opt-out of either network and incorporates a special network mimic diagram.

There are three new videotape cubicles. Two of these have new cubicle equipment and a new pair of VPR2s, taking the total number of I" machines to four. One Rank Cintel telecine machine has been moved to a new area in the complex.

The £5YzM project has been completed in only three years, under the watchful eye of SCPD project leader Tom Deakin.

Transmitters Opened

The following uhf transmitters have opened since October:

Llangynog	Powys
Dronfield	Derbyshire
Piddletrenthide	Dorset
Crosthwaite	Cumbria
Coombe	Devon
North Bovey	Devon
Linnet Valley	Suffolk
Winterbourne Steepleton	Dorset
Woodford Halse	Northants
Clearwell	Glos
Westbourne	Dorset
Wonersh	Surrey
Lisbellaw	Co. Fermanagh
Derrygonnelly	Co. Fermanagh
Gortnageeragh	Co. Antrim
Plumbridge	Co. Tyrone

The following vhf transmitters have opened or changed:

Guildford	Surrey
Rothsay	Strathclyde
Ilchester Crescent	Avon
Kilkeel	Co. Down
Knock More	Grampian
Gt. Massingham	Norfolk
Pontypool	Gwent

Transcription Service Compact Disc

The first Compact Disc (CD) to be made by the BBC has been issued by the Transcription Service. This is the first-time that Transcription Recording Unit (TRU). have used this medium for distributing programmes to overseas broadcasters, and is also the first CD to be manufactured in Britain.

TRU have been involved in recording programmes on conventional LP's for the past 30 years, cutting master lacquers which are subsequently processed and pressed by commercial companies. In recent years much of this work has been handled by Nimbus Records at their factory in a country house in the Wye valley. The decision by Nimbus to set up a CD plant encouraged TRU to suggest a pilot recording and subsequent issue. The scheme was welcomed by the Transcription Service business office, and by the production staff who co-operated to launch the first disc only two months after the original recording.

The programme chosen for the first disc was of works by Britten and Schoenberg played by

the City of Birmingham Symphony Orchestra, conducted by Simon Rattle at Snape Maltings. A digital recording was made using the Sony F-1 system, with the subsequent editing, assembly and special presentation by John Amis done by TRU. A Sony PCM 1610 system with special facilities was hired for the high-quality fine editing and mastering required for CD discs.

The replication plant was, in fact, still being installed in the factory whilst the editing and production of artwork for the label and booklet were being correlated. Nimbus produced the first 50 discs just in time for their shipment to the USA where the concert was broadcast to a number of major cities over the Labor Day weekend.

So far more than 20 countries have ordered the programme. Interest has ranged from the sophisticated broadcasters of Europe, Australia and the USA to small third-world stations. This bold gesture in a revolutionary medium has attracted widespread attention and praise throughout the broadcasting world. The exercise has proved valuable not only from the publicity gained but also as an indication of the

international interest in the first widespread application of digital audio technology.

* * *

Woodlands Exhibitions

Here is the list of exhibitions being arranged for Woodlands in 1985. More details from IT&P Section, A2047, Woodlands:

February	
6	National Semi-Conductors Ltd., Acorn Computers Ltd.,
20	Gould Ltd.,
March	
6	United Electronics Ltd.,
,27	R.F. Components Ltd., (Provis).
April	
17	Schroff (UK) Ltd.,
May	
8	Cooper Tools Ltd.,
29	Imhof-Bedco Ltd.,
June	
19	Rittal Ltd.,
July	
17	Sony Broadcast Ltd.,
August	
7	Varelco Ltd.,
September	
18	Canadian Instruments & Electronics Ltd.,

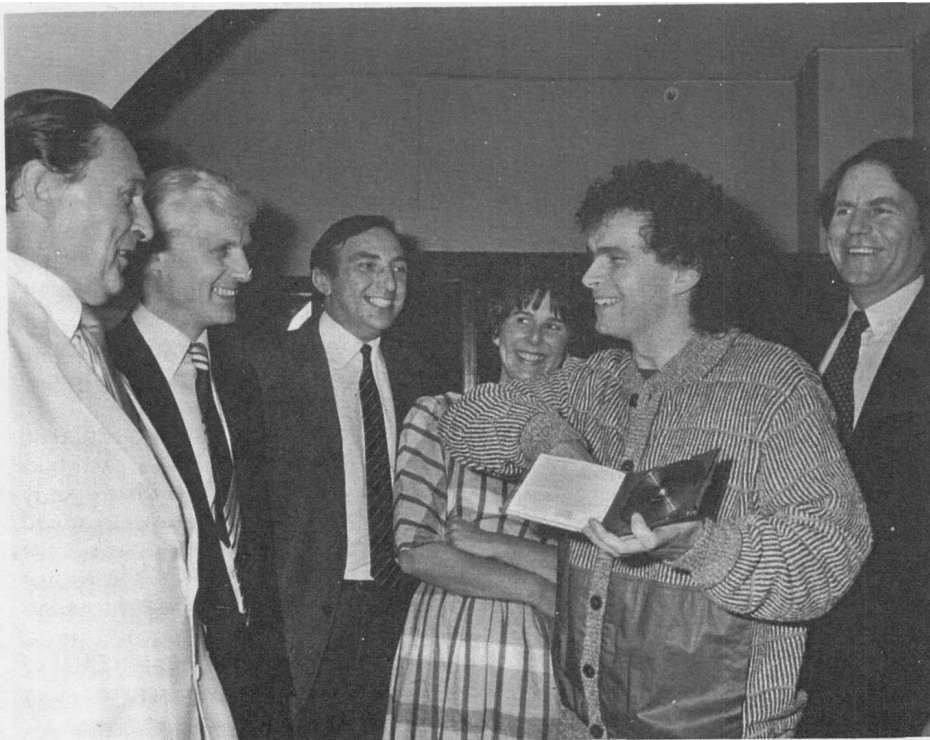
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ERRATUM

The caption on page 12 of 'Eng Inf' number 18 is incorrect. It should read:

The new Microwave Communications link equipment.

Our apologies for any embarrassment caused, and our thanks to the engineers who spotted the mistake.



Simon Rattle the conductor receiving a presentation copy of the Transcription Compact Disc.

Left to right: Jimmy Burnett (Music Producer) Quentin Fuller (Recording Engineer) Alan Bilyard (HTS) Corrinne Fisher (TS Publicity) Simon Rattle and Ted Dougherty (Business Manager)

... More Developments

a t t



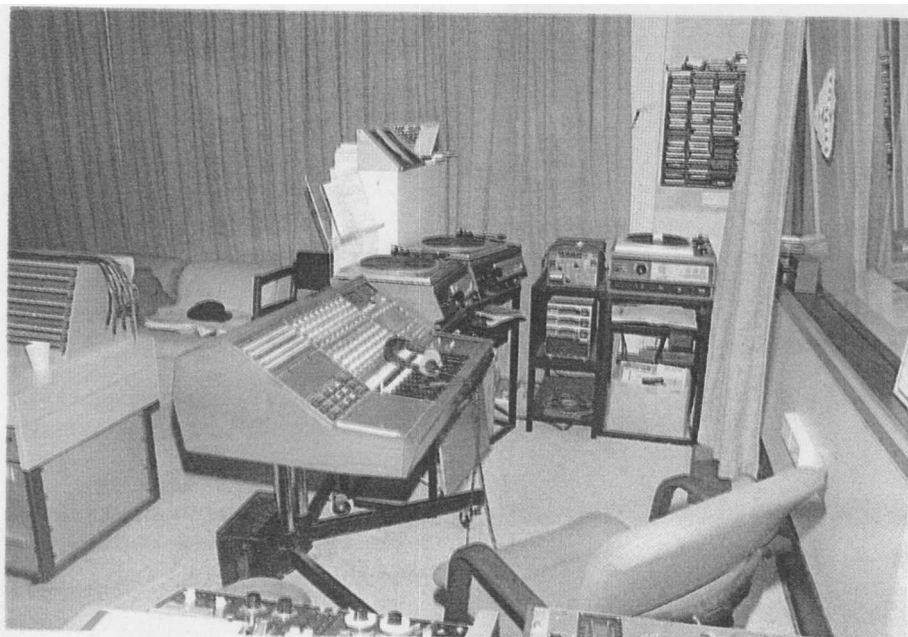
The Neve desk in the new Sypher suite at Pebble Mill

New Film Dubbing and Sypher Suites

The film sound dubbing theatre at Pebble Mill has recently been converted into two suites suitable for film dubbing and sypher (Synchronised Post dub, Helical-scan and Eight track Recorder) operations. Both areas are operationally similar with customised

Neve stereo sound desks specially designed for post-production sound dubbing. The film dubbing area is unique in that it serves a dual-purpose and can also be used as a sypher suite.

The sypher suite - the third of its kind in the BBC, and the



The gram ops sub-mixer in the film dubbing area at Pebble Mill

first outside London - has a twenty channel Neve 51 series stereo mixing desk with a Necam 96 automation system to be fitted soon. A Sony 26-inch monitor provides both picture and time-code displays, and a pair of LS5/8 loudspeakers allow the production to be monitored.

Behind the mixing desk is a gram operations area containing a small Neve sub-mixer that allows three SCPD disc players, three Studer A81 0 twin-track plus time-code tape recorders, or three cartridge machines to be used in a production. Two of the A81 0s are equipped with trolley mounted synchronisers and control panels allowing effects to be played in synchronism with the master multi-track or video tapes.

Mechanically noisy equipment, such as U-matic vcrs and multi-track tape recorders, have been located in an apparatus room outside of the control room. Two IYC high-band U-matics and two Studer A80 8-channel multi-track recorders can be controlled locally in the apparatus room, or remotely from the main desk. All equipment is synchronised using the Design Department Maxim time-code synchronisers.

The film dubbing area is similar to the sypher suite, and, with its dual-purpose role, can be used for sypher operations as well. The same controls operate the video scanner and sepmags for film dubbing or U-matic and multi-track for sypher work.

Outside of the control room are nine Perfectone Rapimag 16mm sepmag machines. An optical projector has been replaced by an Albrecht video scanner capable of running synchronously at up to thirty times normal speed (750 frames/second) forwards or backwards. All of the Rapimag machines and the Albrecht video scanner can be locked to a pulse generator using 50 Hz and 250 Hz bi-phase pulses to control the transport mechanisms as slaves. A pulse routing system allows any of the transports to be locked to the scanner, and also enables the telecine machines to replace the normal scanner, and locks any of the "nine sepmag machines to a

he M; 11 ...

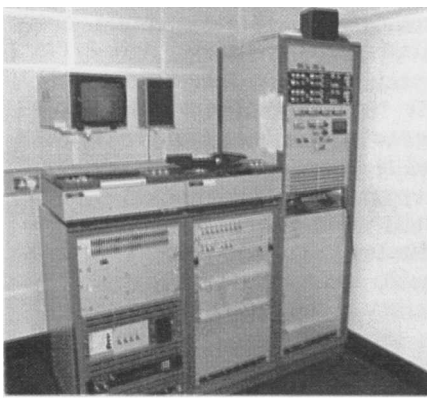
telecine without disturbing the dubbing operations.

Two small studios can be switched to either control area. Each contains the necessary "audio props" such as false doors, windows, stairs, and a variety of walking surfaces, to enable successful dubbing of a production. The studios are visually monitored in the control rooms via closed circuit television systems.

The refurbishment of the film dubbing area was carried out by Roy Clarke of SCPD. The sypher suite was installed by Mike Atree of SCPD with building work co-ordinated by John Hackworth of ACED.



*Pebble Mill studio B
Production, vision and lighting control areas.*



U-matic recorders in the apparatus room

Studio 8 Control Rooms Refurbished

The studio B control rooms at Pebble Mill have been rebuilt and refurbished with new mixing and monitoring equipment. Production, sound, and vision and lighting share the same control area.

The production area boasts a new Grass Valley mixer, Aston 3 caption generator, three Melford colour monitors and eighteen monochrome monitors. To the left of the production area is the vision and lighting control for the four Link 125 cameras and Electrosonics thirty five-way lighting control system. Monitoring is via three Melford colour monitors, and five monochrome monitors. Between the two control desks,

carefully camouflaged into the wood panelling, is a bay of line connectors, allowing easy interconnection of sources and destinations to the production mixer.

Behind the production control area is the sound control area, unusually separated only by a heavy curtain from the other areas and not in a dedicated room. Equipped with a Calrec stereo twenty-channel mixer, LS5/9 monitor louspeakers and two Revox PR99 tape recorders,

the area boasts good communication with the production area; a vital asset for the local news and current affairs programmes produced there.

The studio area remains basically unchanged except that there are no technical facilities on one wall of the studio, allowing the cyclorama to extend almost to the studio wall, effectively increasing the usable floor area. Iris-two lights have been installed to provide top lighting onto the cyclorama.

The sound control area, Pebble Mill studio B