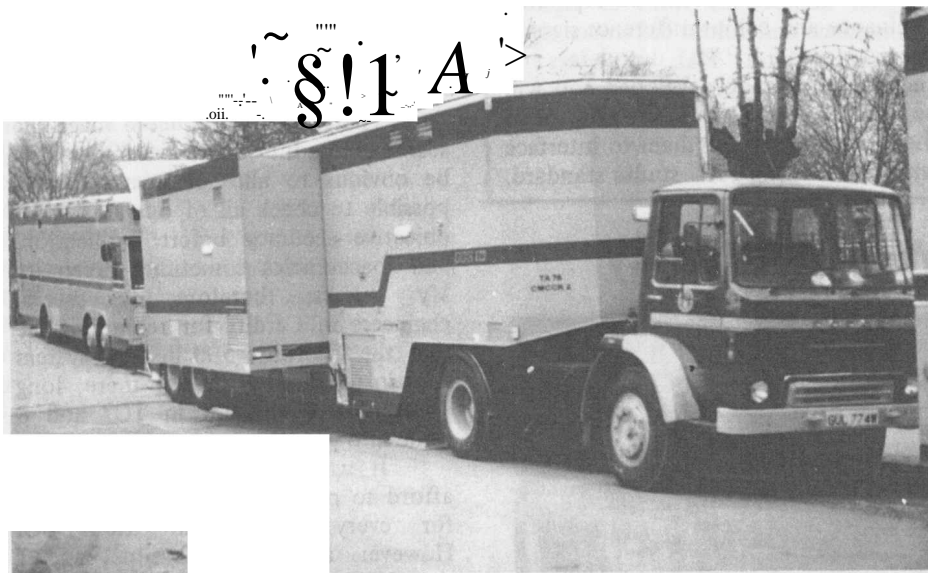


BOAT RACE MAKES HISTORY for new 08 vehicles



The new CMCCR2 on site at Putney for the Boat Race.

The 127th University Boat Race marked yet another milestone in the history of Television Outside Broadcasts. In service for the first time were the new Colour Mobile Central Control Room (CMCCR) and Mobile Communications Area (MCA).

The CMCCR uses an unconventional approach to the problem of outside broadcast vehicles, whose size is normally limited by the demands of road traffic regulations. For major outside broadcasts such as the Boat Race, Open Golf Championship or Wimbledon Tennis, the normal production control room is too small for the extra number of cameras and monitors required for full coverage of the event.

The CMCCR has therefore been designed with electrically operated expanding sides, which enlarges the production control room from the normal 2.5m to 4.5m. One of the expanded sides contains a bank of thirty black and white, and four colour monitors; the other side accommodates the production staff and allows free

movement around the production control desk.'

At the rear of the vehicle is the sound control area, housing a 44 channel Neve stereo sound mixer, and a communications system based on a 50 x 100 pin-board matrix that enables the communications to be tailored to suit the needs of each outside broadcast.

The front of the vehicle houses an engineering and vision control area where the vision signals are processed and monitored. The vision mixing and routing equipment is mounted here, together with a smoke detection system, alarms and the power distribution equipment. Other equipment includes digital video synchronisers, and sophisticated measuring equipment. Space has been left for two camera control positions or a video tape recorder to be accommodated on a temporary basis.

The Boat Race was rowed over some 4Y..miles of the Thames, and this created problems for Tel OB's because of the difficulty of connecting the 10 landbased camera sites to the central

control room.. In addition cameras were mounted on board a helicopter and on the "Pembroke Puffin" boat, and these signals also needed to be connected to the central control room. To overcome these problems, uhf and shf radio links were provided carrying camera signals back to the CMCCR. Reverse circuits over vhf radio links were established so that the camera control data for the Philips LDK5 type cameras could be remotely controlled from the central control room. In addition an extensive vhf talkback network was established enabling the production staff to talk to the cameramen at the remote sites. The co-ordination and control of all the communication facilities was provided by the new Mobile Communication Area (MCA) vehicle, which was designed with major Outside Broadcasts such as the Boat Race in mind.

The MCA houses all of the radio link equipment and also has the capability of checking the quality of the signals coming in from a maximum of twelve dual-head links, and these can be displayed permanently on 12 monochrome monitors. The vehicle can use six independent vhf radio telephone systems allowing full talkback facilities with the camera and radio link sites. Television signals pass through a 32 x 16 routing and monitor matrix, where test signals can also be inserted to check the various link and cable parameters.

For the Boat Race broadcast twelve cameras were used, three being connected by landline, the remainder by radio link. This is a record number of remotely controlled cameras for a BBC Television Outside Broadcast.

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Reception Quality Checks

Do you live in the service area of the Wrotham vhf transmitter?

Would you like to take part in listening tests at home on your own domestic radio?

Send for an explanatory letter to Alan Lafferty, Room 701, HWH.

Digital Stills Store at R.D.

Two types of digital electronic stills-store are currently being developed at Research Department.

A television animation store is being constructed which, in conjunction with a television rostrum camera, can generate animated sequences for television. Up to 800 pictures will be stored for replaying at normal television rates. Specially developed digital television processing circuits installed within the store system will enable still pictures to be combined by normal mixing or keying operations. The operation of the system will be entirely programmable. Construction of the animation store is due to be completed by the end of 1981, although a programmable television rostrum camera will not be available until next year.

A second type of stills-store is

being developed to meet the more general need for a studio stills picture store. This store will have a smaller capacity and slower access than the animation store described above. It will simply present two still pictures to the normal studio mixer via two independent output channels. A first prototype is to be completed by September 1981 so that the Television Service can evaluate the use of such systems.

Both types of stills-store are based on the storage of television signals, on computer-type hard disc drives, in digital component form as separated luminance and colour difference signals. Special digital PAL decoders and encoders are being developed and will be installed in the inputs and outputs of the system to enable them to interface with the existing PAL studio standard.

Editorial

The economy, we are told, is in recession and the effects of inflation surround us. Yet the ingenuity and resourcefulness of engineers in the BBC enable the high standards, set many years ago, to continue. The cutbacks of the past year may still be felt in many areas, yet we still remain the fittest broadcasting organisation in the world.

The need to produce a magazine such as "Eng Inf" on a small budget will be obvious to all. It is not always possible to check all of our stories for objective accuracy before publication, and inaccuracies sometimes creep in. My thanks, therefore, to several engineers in Cardiff for reminding me that the Thornlite 500 lighting system was installed and in use there, long before the equipment in TC7 and 8 came into use (Eng Inf No. 3).

It would be nice to be able to afford to print one copy of "Eng Inf" for every engineer in the BBC. However, this is not possible, and I would ask all of our readers to pass copies on where possible. Please do not me them away in ring binders to gather dust until the day you retire.

There are occasionally extra copies available, although further information on any of the individual subjects can always be gained from the Department concerned.

Alan Lafferty

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This mixer has a new feature in that the controls on the control room desk are converted from analogue voltages to multiplexed digital signals, processed via PROMS to modify fading laws, and then converted, digital to analogue, in the actual respective fading amplifiers, thereby controlling the levels of the audio or video signals. Also there is no separate "cut" bank; cutting being performed as a "fast" fade. Similar mixers are due to be installed in the TV Continuities at TV Centre later in 1981.

The SCPD team responsible for the installation were Mike Lyons, Tim Hardiman, Peter Arnold and Les Cussans.

CARDIFF: new continuity

Cardiff television Continuity 'B' suite

The second TV Continuity Suite at Broadcasting House Cardiff has now been handed over by Broadcast Systems Unit 'B' of Studio Capital Projects Department on time. It has now taken over the BBC Wales continuity control from the adjacent TV Continuity Suite 'A' so that some urgent remedial modifications can be made to this TV Continuity which for a while will only be used for the occasional BBC-2 opt-outs by Wales.

The facilities in the new TV Continuity (known as TV Continuity 'B') are the same as in TV continuity 'A', less the Ryley CAPGEN character generator and one BAIO/501 slide-scanner.

The control room has been

enlarged by removing the wall between it and its Engineer position room, which was not required, thereby allowing a better and more spacious layout and larger screen sizes on the picture monitors.

The mixer has been provided by Michael Cox Electronics Limited to BBC specifications, which stated that its control panel layout and functions must be identical as far as practicable to those on the Prowest/EMI mixer in TV Continuity 'A'.

The mixer is an audio/video mixer of the "knob-a-channel" type, with remote control of both audio and video. The electronics are housed in equipment racks in the Communications Centre upstairs.