

# ENG INF

The Quarterly For BBC Engineering Staff



## BOAT RACE MAKES HISTORY for new OB 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 4¼ 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.



### 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.

