



HISTORY OF SIGNALLING IN 100 OBJECTS C41/R222 RADIO RELAY EQUIPMENT



Establishing a radio relay link from Murud, Sarawak.

During WW2 the partial replacement of telephone lines by point to point radio relay had been achieved using the SHF No10 set, which continued in service until the 1950s. Experience in Borneo and Aden was that VHF was the way ahead for voice communications, including for radio relay equipment. You might think that the first picture was of a radio relay link using a C41 Yagi antenna, but in fact this was a C42 rebroadcast station manned by Gurkha Signals in Sarawak. This was connected to a command net, so traffic was strictly limited on this net - one speaker at a time. Enter the C41/R222 shown below:



This set was a wideband FM duplex multichannel in frequency range of 50 – 100 Mhz. At first it required the insertion of several crystals, but later it was used with a frequency synthesizer that was developed for the BRUIN Radio Relay

set C50/R236. More important for traffic capacity the detachment included the Carrier Set Telegraph (CST)1+4 Number 3 (above right). This gave 4 voice channels. This could be increased using the CST 12. It was first used for trunk communications between Headquarters in Germany. Owing to funding restrictions it was decided that any new trunk system would have to be introduced piecemeal. Trials were conducted in 2 Div HQ & Sig Regiment in Germany using this set with the first field automatic exchange dialing system with improved multiplexers. However, the set had several major problems. The antennas had a separate transmit and receive directional Yagi number 2, which were mounted on two masts 36/48ft steel lightweight, which took some time to erect. Secondly, in BAOR it was transported in a 1 Ton Austin K9 truck towing a generator trailer. This was unreliable and under-powered. Thirdly, the frequency range was too restricted and was used for analogue TV at that time. The first part of BRUIN that came in was the new Radio Relay sets to replace the C41, but it continued in service in 11 Signal Bde and 16 Signal Regiment for some time for the Rear Area communications in Germany.