

MCR21 Engineering News January 2024



Dear Supporter

- May we wish all our helpers and supporters a very happy and prosperous New Year.
- Restoration work continues on the technical installation inside MCR21, much remains to be done but progress has been made.
- We are looking forward to taking MCR21 to a number of events later this year, the first is on the 21st March, a combined event with the RTS and NEP, more details to follow. We need to get a move-on for this is just 10 weeks away, it will fly by!!
- We will have a fundraising bring & sell table at the [BVWS Biggleswade](#) event on 25 Jan to sell items not needed on project.

There are a number of areas where we would appreciate some help:-

- **Engine**, We are not convinced that the engine is running as well as it might be, seems to be running rich and backfires a bit. The mechanical fuel lift pump and pipes are ready for refitting and then a tune up? Expert needed!
- **Engine Bay**, while we are in the engine bay it needs cleaning and repainting as soon as the weather is a bit warmer.
- **CO-AX cable!** Almost all the cabling is in place, but need to find some thin black 75ohm cable for the sync distribution system. Have to fit 4 cables into the EP8 connectors.
- **Storage Space** has anyone, near to Camberley, got any space? A garage or part thereof, **becoming a crisis**
- **Woodwork projects**, two expert jobs are on the list.
 1. A **Loudspeaker**, The original was a Pye type 845703 which we have not been able to find, It is a curious "not square" shape. In the longer term it might be nice to make a duplicate?
 2. At the rear of MCR21's production area there is some carpet on the wall. This needs replacing with authentic panelling to match.
- **Air conditioning**, Originally the production area was cooled (or heated) by a unit mounted below the floor and accessible via the "boot" locker door. If a suitable unit can be found it would make the interior much more pleasant. However there are a number of difficulties:-
 1. When the door is open, as it is in demo mode, you are trying to cool the world!
 2. An air con unit is a 4 port device (air in-out etc.) and the ports need to be appropriate for the space it fits in.
 3. Ideally we need an old fashioned one without the modern control and inverter systems so it interfaces with MCR21 well, but older units have illegal GAS in them so a conflict here? And they would be unrepairable if they failed.
- **The Pye Mk6 camera** is starting to look quite good, however we have stalled on getting it working, need the circuits and the CCU-OCF cable, both difficult items. We have been searching for the handbooks but to no avail, our last hope is that they may be "in a box" somewhere in the science museum store at Wroughton. Tracing the circuits out would be hard.
- **Vision Engineers control panels**, The metalwork for these two units has now been made and wiring and fitting the panels is proceeding. This will make the vision engineers desk look good and be almost complete.
- **Master waveform monitor** A Tek 515A should be installed between the two vision engineers desks, we have the scope, but the mounting metalwork is problematic.
- **Gresham Lion** Pulse & Bar generator BBC GE4/504, still searching for this, might have to use a slightly later Marconi TF2905.
- **Small chrome** plated latch to match the others, from 1960s several needed. Please look through your junk box, must be one or two somewhere! Picture below.
- **Difficult connectors!! EA series**, MCR21 used these EA connectors, made by F&E, (17way) for "Multi Mic" cables. They are similar to the standard EP connectors but use a screw retention ring. In later times the same scheme used a GB62 military connector for the same function. Also need the pinout plan? Picture below. Need to find 3 fixed male and several free females all for the sound TB.
- **More difficult connectors** these are for the Philips tape recorder and replay amplifiers see picture below. 2 of each sex required.

Progress reports:-

- **Bench Lamp**. Now Found and awaiting painting and installation.
- **Roof extractor fans**. All three are now installed and working.
- **Philips tape recorder**. We have now obtained the two record/replay amplifiers and these will be serviced and installed when the rack they mount in is ready. The recorder deck fits in a pull out drawer that has to be made.
- **Pye 14" monitor** type 842844 The last two of these are currently being serviced and the space for them is ready.
- **Pluge Generator** BBC White Unit type GE4/508 405L or 625L Pluge generator. Now Found
- BBC White Unit type GE1/508A, 405/625 Bar & Sawtooth generator, Later model found to use till original type found, now working OK
- **The Talkback Junction Box** Now 100% done and cabling complete.

- **Work has started on the Pye Sound desk** The PSUs and some of the amplifiers has been serviced, and we have had signals through the mixer and the optical PPM is working OK.

Have you explored our YouTube channel?

Several new recordings have been made by Paul see our YouTube channel [Click!](#) most recordings have 100-300 views, which is good, but one inexplicably has 10,000 views?? Not that we are in any way complaining, just don't understand why? Please help us by "like" the recordings

And our facebook pages maintained by Rob. [Click!](#)

A Photo review of our exhibitions [Click!](#)



Fixed Male 17 way EA connector



Free socket note fixing ring, 17 way needed.



Unusual continental connector for Philips EL3053 tape system.



Pulse & Bar generator BBC GE4/504



Cupboard door catch!



**Clock showing two black lamps?
Do these illuminate the clock?**

The Plan! The Future Volunteers needed.

- Our regular "work days" are Tues, Weds & Fri afternoons from 10.30 AM. Much soldering to be done.
- We need to further expand our **web presence**, more into social media, Linked-in, a wiki page(s), Giving pages, website expansion. If you have skills in these areas, please volunteer to help. You don't need to be local for this, please contact to discuss
- One area I would like to expand into is **the Library!** We, I, have a very large number of TV related manuals, photographs and BBC technical documentation. This should be made available to wider research bodies. I have in mind something a bit like BBC written archives where you can book an appointment and VIEW the chosen documents. A start for this would be to create a proper searchable catalogue web listing. I would point out even at this early stage loaning books out is utterly forbidden.

A home for MCR21 & the BTTT

- There is thought we need to set up a **better base for MCR21** and the broader broadcasting equipment exhibits. To this end a suitable building is sought. Very difficult in this area but if we all look round something may be found.
- A few key points; Affordable or peppercorn, Secure, big door, not too far away, power, feasible from the planning point of view, reasonable access/parking. This could be a temporary home pending something better. A place where we could do "workshops & open days"

Fundraising

As ever there is a need to raise funds! The ongoing costs (storage, further restoration, transport, insurance etc.) still have to be met every year, so we would welcome donations to help this ongoing work.

We are pleased to receive donations both as cash or equipment to sell for funds.

We have opened a new bank account at the Natwest, the details are:-

Name BTTT, A/C 97548413 Sort 60-04-20

If you would like to support us, an ideal way is to set up a modest standing order direct into our bank account

Or you can use our [PayPal donate button](#)

Thank you for your support



Please pass this newsletter on to others who might be interested.

The Trustees:-

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Our Websites:-

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Broadcast Television Technology Trust