



MICE CM40

Overview of progress

- *Progress since CM39*
- *Point and worries to note*

Andy Nichols, STFC, 28/10/14



Progress since CM39



- *At CM39, I outlined how the installation team and working patterns needed to be adjusted in advance of Step IV*
 - *Well, that all appears to have worked*
 - *The work is more intense, which is great to see and generally things are on track*
 - *Others will cover things in more detail this week, so I'll only talk about the basics:*
- *Magnets*
 - *Old news now, but all three Step IV magnets are in place and roughly aligned*
 - *US team has been doing remedial work on SSs; I think a small amount remains – current cables from turrets have been re-configured*
 - *FC2 is trained and field mapped and its performance is superior to that of FC1 – MICE has decided to swap it with FC1 in Hall – scheduled for late November (not a big job)*



Progress since CM39



- *Hydrogen and absorbers*
 - *ISIS has requested an update/review of the hydrogen system before Step IV – Steve & me are working with them to ensure that it is as lightweight as possible – more later*
 - *Remaining parts for vacuum system on order*
 - *Absorber windows are here:*
 - *We now have the ‘as manufactured’ window thickness data*
 - *Will enable FEA to be concluded – Oxford Group*
 - *This was always a significant open issue in previous reviews*
 - *And we have the second liquid absorber that was destined for Step V*
 - *And I heard a rumour that the LiH absorber is on its way.....*
- *Tracker and readout*
 - *Both trackers are installed*
 - *Frames to support cryostats made*
 - *Compressors & what-not are placed and connected*
 - *Cryostats will be moved in during early November*



Progress since CM39



- **PRY foundations**
 - *This has formed the bulk of the mechanical work in the Hall over the last few months, led by Jason, more from him later*
 - *Mainly marking out and drilling for large resin-bonded studs and sleeves*
 - *Finding out how tough 1959 concrete can be*
 - *It's in the final stages and we hope to be complete in the next two weeks*
 - *Our plan is then to fit up the hardware, take stock and then have a Big Tidy Up*
- **Mezzanines**
 - *Mods to South mezzanine for PRY are complete – this liberates a number of other jobs*
 - *West mezzanine is now populated with compressors (except for three we can't find!)*
- **Detector preparations**
 - *EMR upgrade and new rack installation complete*
 - *TOF1 shielding plan made*
 - *Both trackers installed*
 - *Diffuser installed and tested*



Progress since CM39



- *PPS*
 - *A similar review/update to that of the hydrogen system has been requested by ISIS – am working with Craig for early December*
 - *Light curtain to facilitate search of west mezzanine now commissioned*
 - *Otherwise the PPS is ‘maintenance’*
 - *Implication of PRY understood – apertures can easily be guarded with mesh*
- *Ancillary plant*
 - *Thanks to John, the waterworks for the west mezzanine and tracker readout are installed – only waiting for small fittings to connect flex tubes to compressors*
 - *The overall air conditioning continues to be a bit eccentric*
 - *We appear to have been disconnected from the site compressed air main:*
 - *Nothing safety-critical is affected*
 - *But when things fail safe due to an interruption, it’s a complete pain*
 - *John is negotiating for a permanent supply from R55 (our neighbours)*



Progress since CM39



- *Rooms (Rack & Control)*
 - *Physical re-fit of MLCR is largely complete*
 - *Much more pleasant to use*
 - *Shallower desks, more efficient use of space*
 - *Making better use of the patio area outside*
 - *RR2 is slowly filling up with racks, UPSs and services*
 - *Water to dump resistors has taken longer than hoped*
 - *Small problems around fire detection and fire stopping remain*
- *Electrical installation*
 - *Great effort from John Webb and Ian Mullacrane, Andy Gallagher of DL*
 - *We now have a thirteen (A0) sheet electrical installation drawing*
 - *Changes controlled adequately in monthly joint infrastructure meeting*
 - *Trunking, trays, cables, racks being installed quite quickly*
 - *Some concerns raised over available staff, but our plan reflects the available resources*



Points to note



- *Not very much really:*
 - *Delivery of the PRY superstructure*
 - *Intense working in parallel not quite as easy as I thought, but OK*

- *As CM41 might be the last one before the operational phase starts, it might be an idea at that meeting to reserve space to update MICE at large on the 'new' considerations we'll have in the Hall, for example:*
 - *User interaction (if any) and awareness of the magnets and their behaviour*
 - *Summary of the PPS guide*
 - *By that point I would like to try and get temporary suspension of the CDM rules*
 - *An awareness of the hydrogen system and its safety framework*
 - *Handling of liquid cryogenes and compressed gases*
 - *The resumption of the MOM regime*
 - *A reminder of the various channels of authority*

