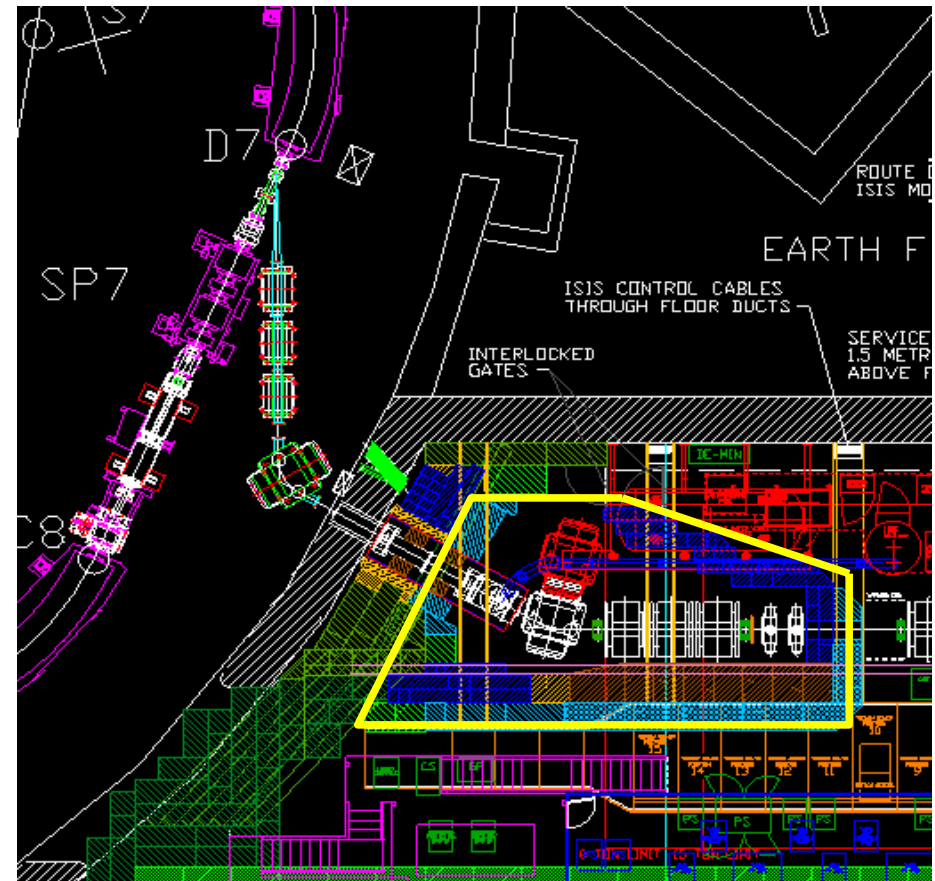


MICE Project Report

Alan Bross
(for Paul Drumm)

Project Issues

- Key dates:
 - ISIS Synchrotron start-up scheduled for 1st August
 - Shielded area around decay solenoid (DSA) **must be completed; significant risk (high impact)**
 - **concentrates the mind!**
 - **ISIS user runs - start up for production running 2nd October**
 - **These dates are subject to last minute changes**



Strategy

- Schedule of work in the synchrotron in parallel with that in the MICE hall
- Work on the shielding, cryoplant and beam line within DSA broken into steps
- Parallel work in mice hall once solenoid is installed

Current events

- Shielding is being delivered from DL
- Next heavy-gang job is to pull out the existing shielding blocks - not under our control
- Preparations for final drilling in concrete roof
- Preparations for cutting solenoid trolley



Urgent needs

- many urgent items in time order:
 - Shielding design plan (steel plates);
 - Plinth;
 - Rails & extension frames;
 - Solenoid trolley mods;
 - Linde equipment installation;
 - Decay solenoid repair;
 - D2;
 - Q4-6;

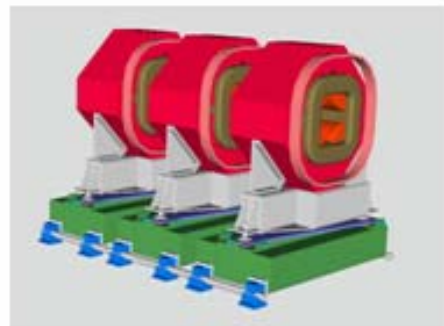
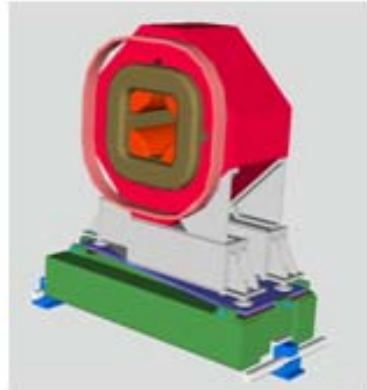
Synchrotron components

- Dipole & Quadrupole stand parts now out for manufacture - delivery expected to drive schedule (for installation in May)
- Installation - people - may suffer clash



D2, Q-stands

- Engineering being finished off
- Rebuild of 1st Q35 is in progress
 - issue with coils - still being investigated
 - may need to remake some coils

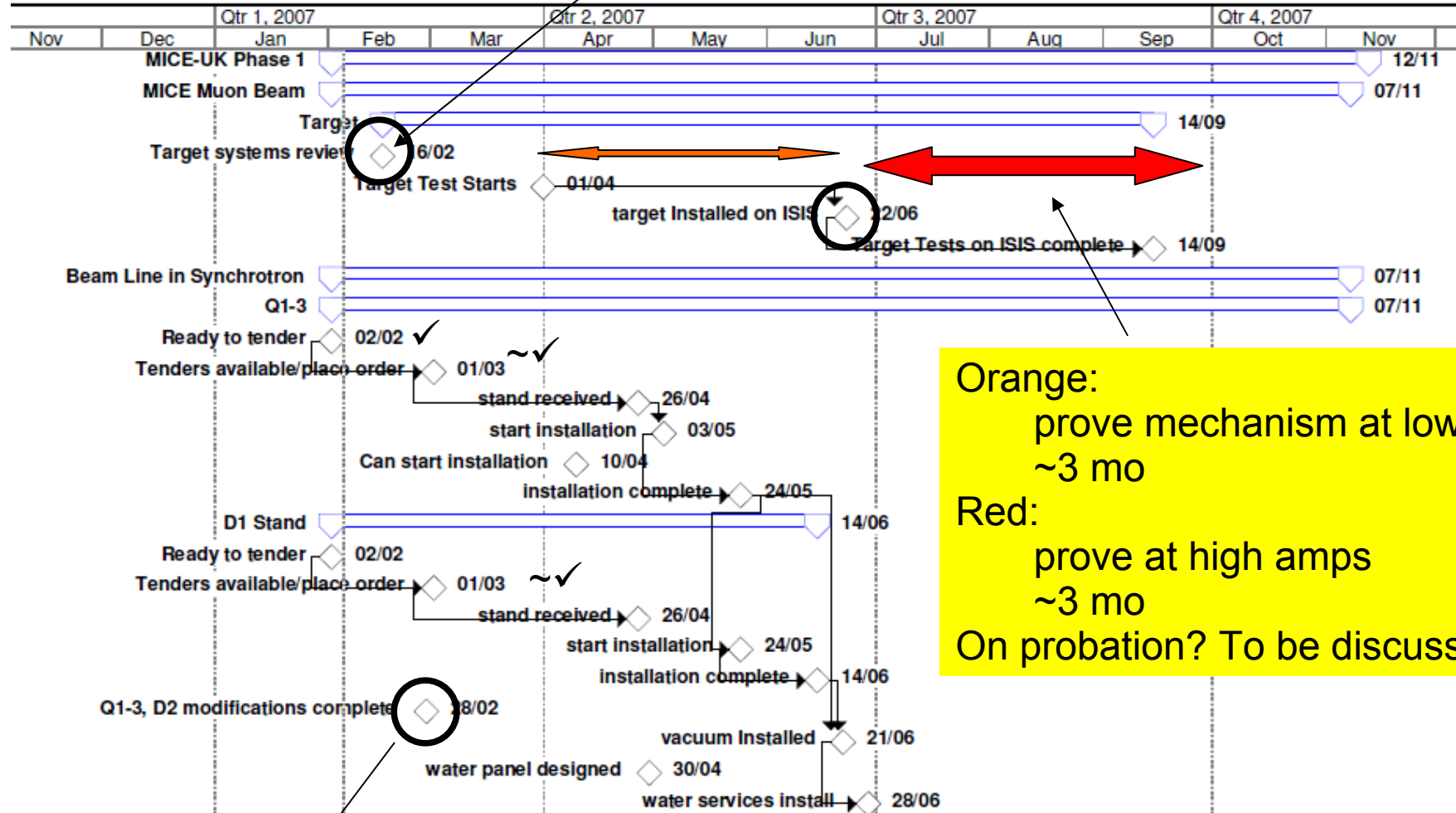


- Progress
 - Successful test in October
 - Didn't manage a second go (for more statistics)
- Power supply operating at DL at higher amps
 - Power supply into a load > into target so far
 - One conclusion has been that the target controls are not fast enough
 - A plan has been evaluated & will be reviewed at beginning of March (TB + local review team) documents being prepared
- Risk: we need to “prove” reliability with time running out...

Milestones

Beam line - Synchrotron

Review controls & EE
(9th March)



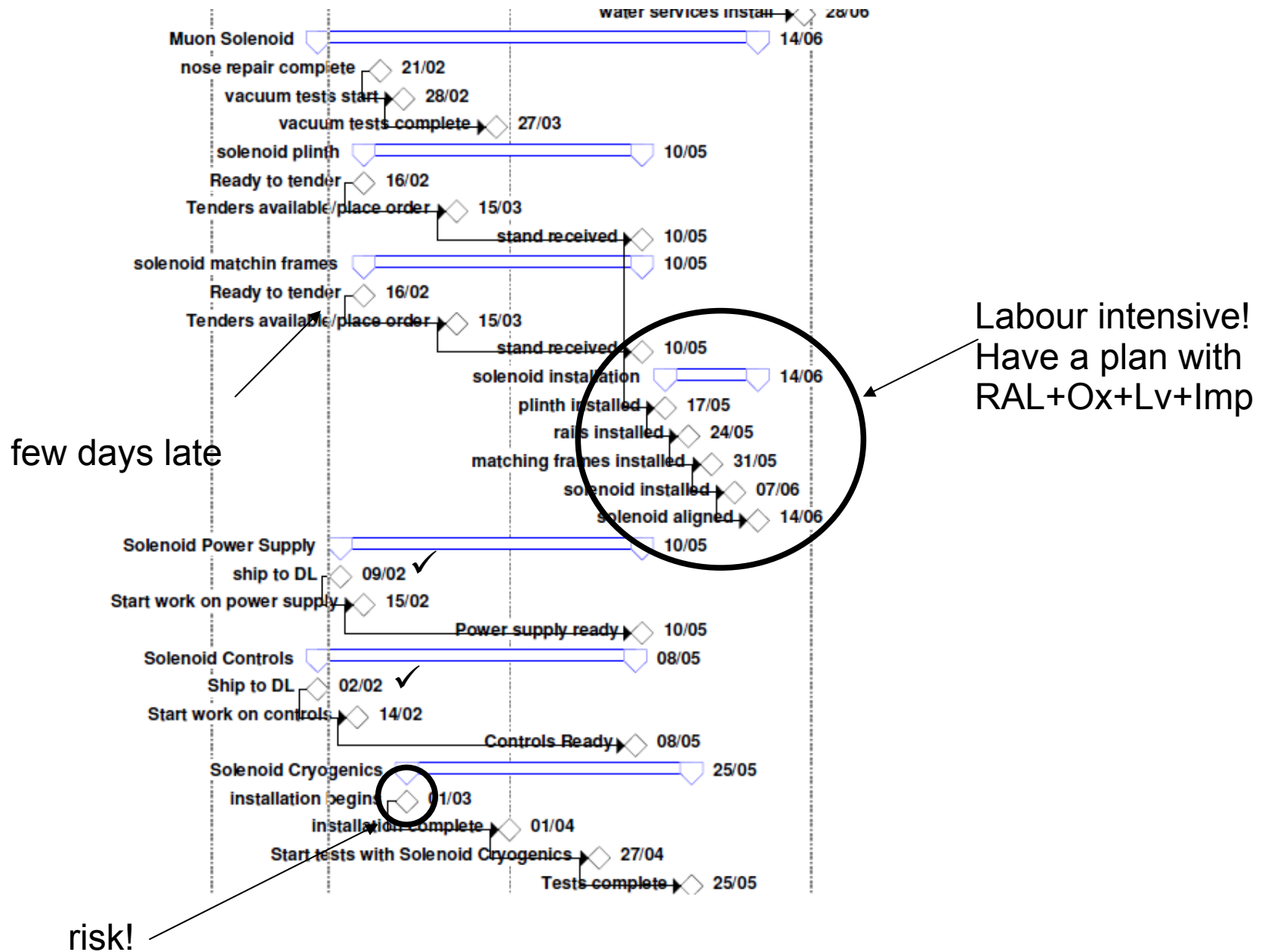
Orange:
prove mechanism at low amps
~3 mo

Red:
prove at high amps
~3 mo

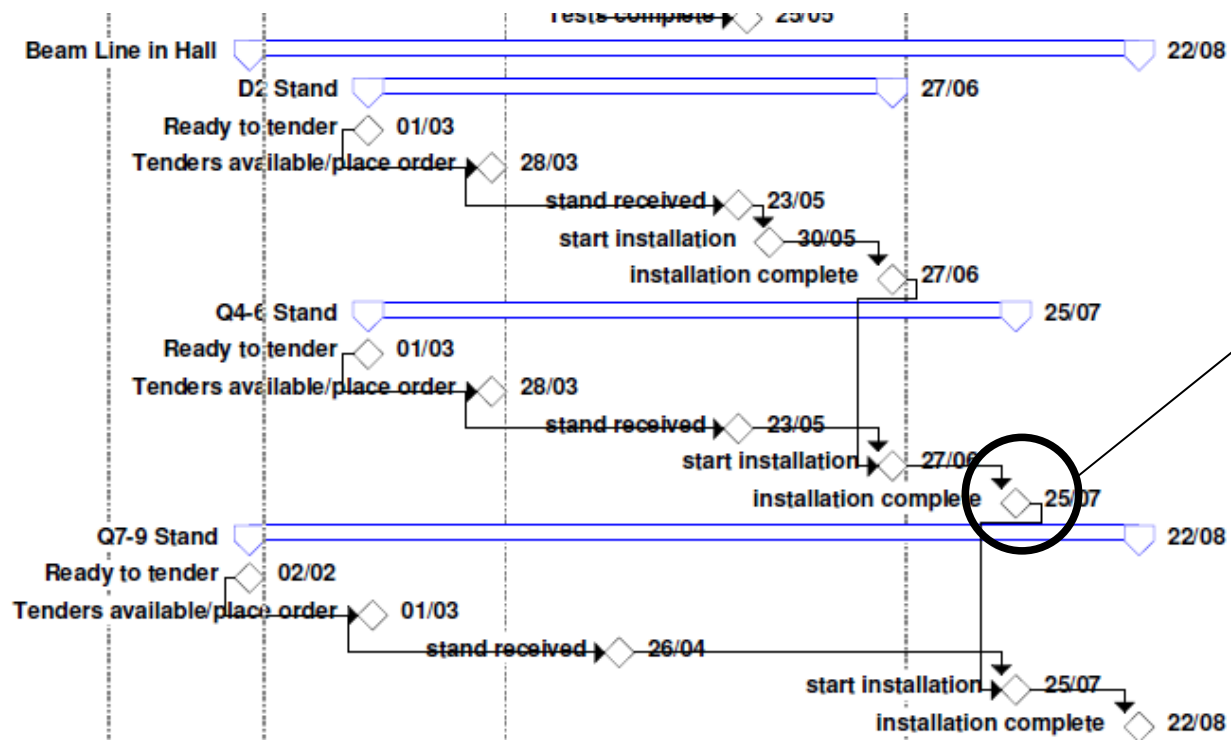
On probation? To be discussed

not critical

Muon Solenoid



Beam line component Stands



Just in time

Work in parallel to gain time!

- Iron shields
 - control room side - engineering ~complete
 - linac side - simple wall
 - needs detailing
- MICE Plinth - concrete base under MICE
 - leave access clear for shielding installation
 - floor fixings need to be determined
- False floor - between linac wall and MICE plinth

Schedule Summary

- parallel work (plus a proportion of weekends)
- delays arise too easily
 - task review - anticipation
- dependent on delivery of items
 - north and south
- installation of items
 - more control
 - team of 2+2+1+2 *established*
 - crane operators
- Can we do it!
 - yes we can!

Instrumentation & TOF0 & CKOV

- Still need to work out mounting scheme
 - follow from shielding design
- Need TOF for beam diagnostic
- installation in July?
- FNAL beam monitors
 - not yet clear how many needed
 - not yet clear on cost

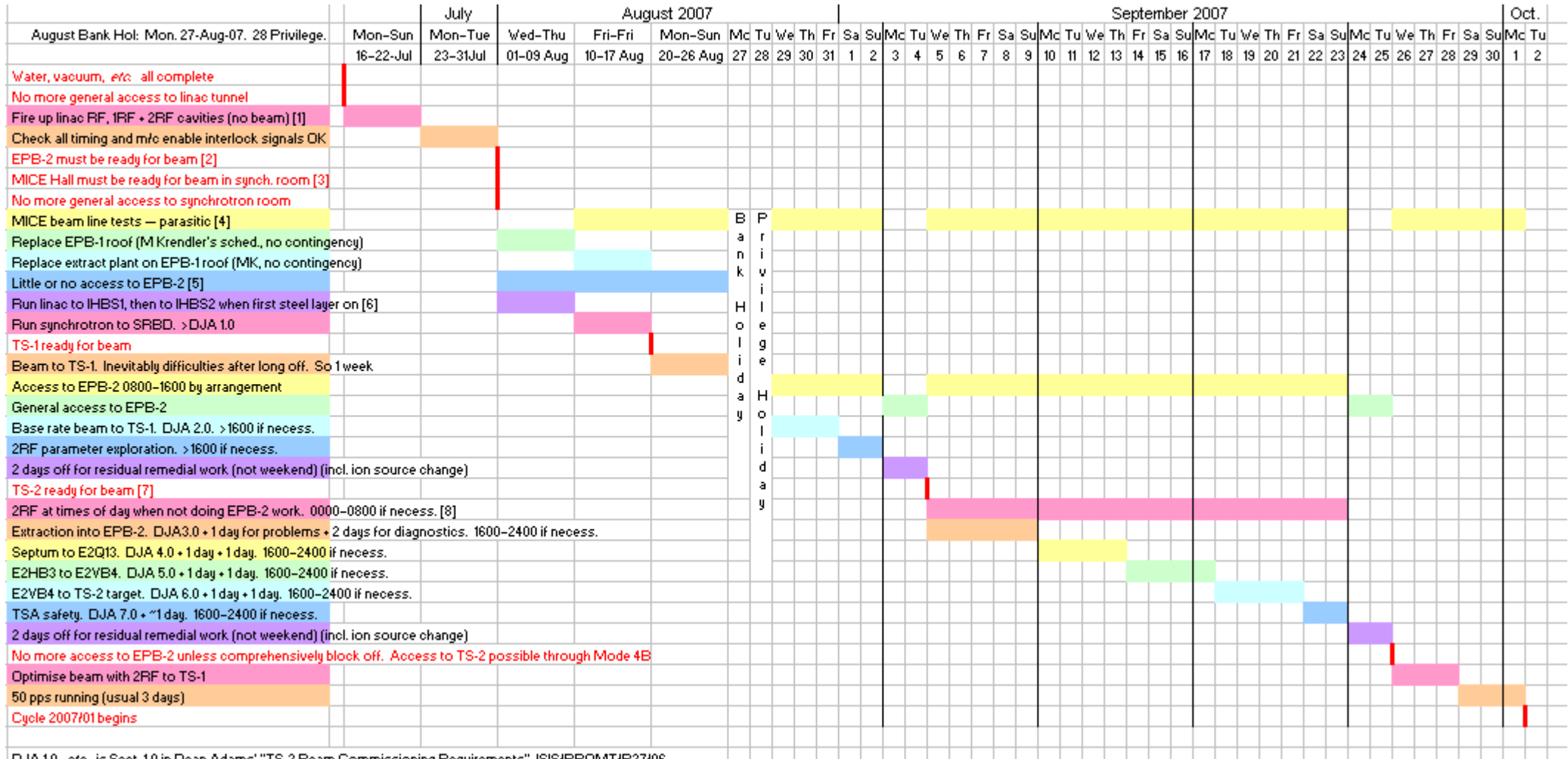
RF Activities

- Important for Phase 2 - MICE-CERN-UK
- Tight schedule
 - 300kW power mid year
 - waiting on final rebuild of amplifier
 - 4MW end of 2007
 - build HT rack
 - control rack
 - 4MW load?
- Conflicts of other activities
 - management issue in Daresbury

LH2 & Absorber

- Specification close to completion
 - sign off with MICE
 - sign off with RAL
 - tender - delivery in X months?
 - Overlap of MICE running & LH2 work
 - LHe work will be important to learn safety implications
 - Advise a mid point review before starting with LH2

ISIS Running in August

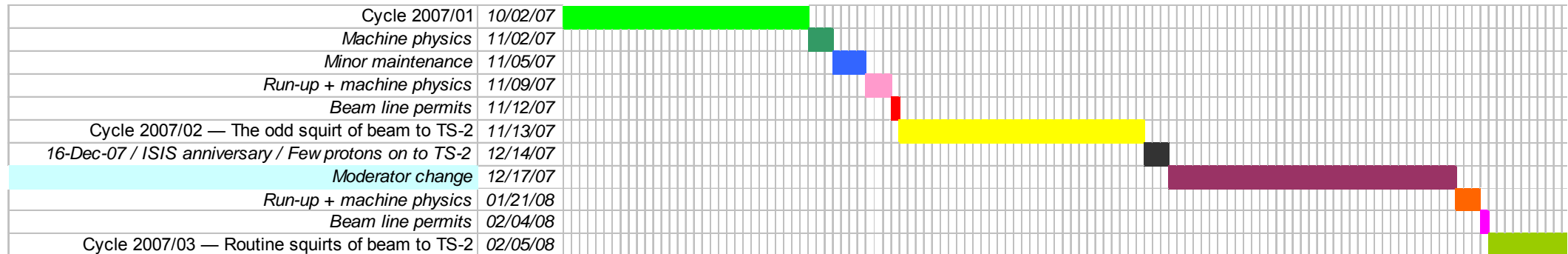


Provisional – subject to change

[4] MICE beam can basically run any time synchrotron is running, provided beam losses in Straight 7 acceptable. But machine programme determined by ISIS operations, not MICE.

ISIS user running

- Provisional dates s2c
 - Cycle starts Tuesday 2nd October
 - ~60 days of user beam in 2007



Provisional – subject to change

Organisational & Safety Issues

- October collaboration meeting:
 - MICE management needs to re-organise itself into “an operational structure”, e.g.
 - Physicist in charge (for weeks running)
 - Engineer in charge (for weeks running)
 - Shift teams (call up and rostering)
 - weekly run planning meetings
 - monthly safety review meetings
 - MICE Spoke/MICE EB should set up a team to deliver this structure, operating procedures, local rules need to be developed (raised at (see) [CM16 October '06](#))