



Project Manager's Report

Colin Whyte

Major systems

- ❑ **LH2 project** – complete
- ❑ **Trackers** – as before ‘under control’
- ❑ **Beam line** – no known problems
- ❑ **Detectors** – no issues
- ❑ **Controls** – all alarms are real
 - ❑ New functionality – MoM magnet GUI

Magnets

- SSU CC5 poor performance
- Damaged/compromised disc valve in cold head?
- Reduced cooling power.
- Optimised operating pressure ~ 200psi
- Live with it – SSU tested and operational

ISIS 2017/03 Plan

- all shifts full
 - excellent response from shifters.
 - Tight timetable.
- Aim generally 1M, 1M, 2M triggers at 3,4?,6,10mm emittance
- Hard to accelerate schedule without magnet ramps in the middle of the night.
- Some risk as we had never achieved extended run of daily magnet changes.
 - MoM excellent commitment to maintain timetable

ISIS 2017/03 Progress

- Site power cut 20th November
 - ISIS down 1 day
 - MICE down +1 day - water
 - Absorber change moved post weekend.
 - Schedule 'adjusted' to retain 'wedge'
 - ISIS power issues/cooling Dec 7th
- Daily magnet setting changes.
 - MoM magnet ramp down buttons tested and in use
 - 'Trained' magnet sub-experts Durga, Victoria
- LH2 empty data complete.
- LiH empty data in progress

ISIS User Cycle 2017/02; detailed MICE run plan

| Date | Day | Shift | Absorber | SSD(M2) | Shift blk |
|----------------|-----------|-------|-----------|---------|--|
| 13-Nov-17 | Monday | 00:00 | | | |
| 14-Nov-17 | Tuesday | 00:00 | LH2 empty | OFF | |
| ISIS Start 8am | | 08:00 | LH2 empty | OFF | |
| | | 16:00 | LH2 empty | OFF | |
| 15-Nov-17 | Wednesday | 00:00 | LH2 empty | OFF | |
| | | 08:00 | LH2 empty | OFF | Ramp to 2017-02-3; 140 MeV/c data taking |
| | | 16:00 | LH2 empty | OFF | Flip-mode, 2017-02-3; data taking |
| 16-Nov-17 | Thursday | 00:00 | LH2 empty | OFF | Flip-mode, 2017-02-3; data taking |
| | | 08:00 | LH2 empty | OFF | Switch to 2017-02-4; 140 MeV/c data taking |
| | | 16:00 | LH2 empty | OFF | Flip-mode, 2017-02-4; data taking |
| 17-Nov-17 | Friday | 00:00 | LH2 empty | OFF | Flip-mode, 2017-02-4; data taking |
| | | 08:00 | LH2 empty | OFF | Switch to 2017-02-5; 140 MeV/c data taking. |
| | | 16:00 | LH2 empty | ON | Soln-mode, 2017-02-5: data taking |
| 18-Nov-17 | Saturday | 00:00 | LH2 empty | ON | Soln-mode, 2017-02-5: data taking |
| | | 08:00 | LH2 empty | OFF | Ramp magnets down |
| | | 16:00 | LH2 empty | OFF | |
| 19-Nov-17 | Sunday | 00:00 | LH2 empty | OFF | Straight tracks |
| | | 08:00 | LH2 empty | OFF | |
| | | 16:00 | LH2 empty | OFF | |
| 20-Nov-17 | Monday | 00:00 | LH2 empty | OFF | Mains power cut + MICE water leak |
| | | 08:00 | LH2 empty | OFF | |
| | | 16:00 | LH2 empty | OFF | |
| 21-Nov-17 | Tuesday | 00:00 | LH2 empty | OFF | Straight tracks |
| | | 08:00 | LH2 empty | OFF | |
| | | 16:00 | LH2 empty | OFF | |
| 22-Nov-17 | Wednesday | 00:00 | LH2 empty | OFF | MICE water repair. Straight tracks/magnet test |
| | | 08:00 | LH2 empty | OFF | |
| | | 16:00 | LH2 empty | OFF | |
| 23-Nov-17 | Thursday | 00:00 | LH2 empty | OFF | Straight tracks/SSD M2 off. |
| | | 08:00 | LH2 empty | OFF | |
| | | 16:00 | LH2 empty | ON | |
| 24-Nov-17 | Friday | 00:00 | LH2 empty | ON | Soln-mode, 2017-02-6; data taking |
| | | 08:00 | LH2 empty | OFF | Switch to 2017-02-1; 140 MeV/c data taking |
| | | 16:00 | LH2 empty | ??? | Soln-mode, 2017-02-1; data taking |
| 25-Nov-17 | Saturday | 00:00 | LH2 empty | ??? | Soln-mode, 2017-02-1; data taking |
| | | 08:00 | LH2 empty | ??? | Switch to 2017-02-2; 140 MeV/c data taking |
| | | 16:00 | LH2 empty | ??? | Soln-mode, 2017-02-2; data taking |
| 26-Nov-17 | Sunday | 00:00 | LH2 empty | ??? | Soln-mode, 2017-02-2; data taking |
| | | 08:00 | LH2 empty | ??? | Ramp magnets down |

LH2 empty 2 settings

Shift blk 1

Shift blk 2

Data Plan



ISIS 2017/03 Status

SSD Quench Mon 4th December

- M2 Idot trip – new ‘noise’?
 - +3s ECE quench during fast ramp down
 - Power extracted to external circuit
 - +20s M2 lead quench
 - contactors open
 - Remaining power dumped in magnet cold mass
- Cold mass temp >20K
- Magnet stabilised, cooled to 5K overnight.
- Tues 5th refill with He, 230l
- Magnets back to field without M2 for data-taking at 21.30.
- SSD M2 full field Wed 6th

| | | | | | | |
|-----------|-----------|-----------|--------|-------|-----------------------------------|-------------------------------------|
| | | LiH empty | 08:00 | Empty | ON | Magnet change |
| | | | 16:00 | Empty | ON | Soln-mode, 2017-02-6; data taking |
| 01-Dec-17 | Friday | | 00:00 | Empty | ON | Soln-mode, 2017-02-6; data taking |
| | | | 08:00 | Empty | ON | Magnet change |
| | | | 16:00 | Empty | OFF | Soln-mode, 2016/04 1.2; data taking |
| 02-Dec-17 | Saturday | | 00:00 | Empty | OFF | Soln-mode, 2016/04 1.2; data taking |
| | | | 08:00 | Empty | OFF | Magnet change |
| | | | 16:00 | Empty | OFF | Soln-mode, 2016/04 2.3; data taking |
| 03-Dec-17 | Sunday | | 00:00 | Empty | OFF | Soln-mode, 2016/04 2.3; data taking |
| | | | 08:00 | Empty | OFF | Magnet change |
| | | | 16:00 | Empty | OFF | Soln-mode, 2016/04 2.4; data taking |
| 04-Dec-17 | Monday | | 00:00 | Empty | OFF | Soln-mode, 2016/04 2.4; data taking |
| | | | 08:00 | Empty | OFF | |
| | | | 16:00 | Empty | ON | |
| 05-Dec-17 | Tuesday | | 00:00 | Empty | ON | |
| | | | 08:00 | Empty | ON | |
| | | 16:00 | Empty | ON | | |
| 06-Dec-17 | Wednesday | 00:00 | Empty | ON | | |
| | | 08:00 | Empty | OFF | Magnet change | |
| | | 16:00 | Empty | OFF | Flip-mode, 2016-05-1; data taking | |
| 07-Dec-17 | Thursday | 00:00 | Empty | OFF | Flip-mode, 2016-05-1; data taking | |
| | | 08:00 | Empty | ??? | Magnet change | |
| | | 16:00 | Empty | ??? | Flip-mode, 2017-02-8; data taking | |
| 08-Dec-17 | Friday | 00:00 | Empty | ??? | Flip-mode, 2017-02-8; data taking | |
| | | 08:00 | Empty | ??? | Magnet change | |
| | | 16:00 | Empty | ??? | Flip-mode, 2017-02-7; data taking | |
| 09-Dec-17 | Saturday | 00:00 | Empty | ??? | Flip-mode, 2017-02-7; data taking | |
| | | 08:00 | Change | ??? | Ramp magnets down | |
| | | 16:00 | | ??? | | |
| 10-Dec-17 | Sunday | 00:00 | Change | ??? | | |
| | | 08:00 | | ??? | | |
| | | 16:00 | | ??? | | |
| 11-Dec-17 | Monday | 00:00 | LiH | ??? | | |
| | | 08:00 | | ON | Magnet ramp | |

SSD Quench

Data Plan



| | | | | | | |
|-----------|-----------|-----------------|-------|--------|-----------------------------------|-----------------------------------|
| | | Absorber change | 08:00 | Change | ??? | Ramp magnets down |
| | | | 16:00 | | ??? | |
| 10-Dec-17 | Sunday | | 00:00 | | ??? | |
| | | | 08:00 | | ??? | |
| | | 16:00 | ??? | | | |
| 11-Dec-17 | Monday | LiH M2 | 00:00 | | ??? | |
| | | | 08:00 | LiH | ON | Magnet ramp |
| | | | 16:00 | LiH | ON | Flip-mode, 2017-02-7; data taking |
| 12-Dec-17 | Tuesday | | 00:00 | LiH | ON | Flip-mode, 2017-02-7; data taking |
| | | | 08:00 | LiH | ON | Magnet change |
| | | | 16:00 | LiH | ON | Flip-mode, 2017-02-8; data taking |
| 13-Dec-17 | Wednesday | | 00:00 | LiH | ON | Flip-mode, 2017-02-8; data taking |
| | | | 08:00 | LiH | ON | Magnet change |
| | | | 16:00 | LiH | ON | Soln-mode, 2017-02-6; data taking |
| 14-Dec-17 | Thursday | | 00:00 | LiH | ON | Soln-mode, 2017-02-6; data taking |
| | | | 08:00 | | ON | Ramp magnets down |
| | | | 16:00 | | ??? | |
| 15-Dec-17 | Friday | Absorber change | 00:00 | | ??? | |
| | | | 08:00 | | ??? | |
| | | | 16:00 | | ??? | |
| 16-Dec-17 | Saturday | | 00:00 | | ??? | |
| | | 08:00 | | ON | Magnet ramp | |
| | | 16:00 | CxHy? | ON | Flip-mode, 2017-02-7; data taking | |
| 17-Dec-17 | Sunday | Wedge | 00:00 | CxHy? | ON | Flip-mode, 2017-02-7; data taking |
| | | | 08:00 | CxHy? | ON | Magnet change |
| | | | 16:00 | CxHy? | ON | Flip-mode, 2017-02-8; data taking |
| 18-Dec-17 | Monday | | 00:00 | CxHy? | ON | Flip-mode, 2017-02-8; data taking |
| | | | 08:00 | CxHy? | ON | Magnet change |
| | | | 16:00 | CxHy? | ON | Soln-mode, 2017-02-6; data taking |
| 19-Dec-17 | Tuesday | | 00:00 | CxHy? | ON | Soln-mode, 2017-02-6; data taking |
| | | | 08:00 | CxHy? | ON | Ramp down |
| | | | 16:00 | CxHy? | ??? | |
| 20-Dec-17 | Wednesday | | 00:00 | CxHy? | ??? | |
| ISIS off | | 08:00 | CxHy? | | | |

Data Plan

MICE Equipment

US equipment – ‘leave in place’?

- RF co-ax components to CERN.
- Amplifiers?

Daresbury test stand

- Amplifiers returned to CERN

UK Equipment

- RF to ISIS. – Triodes.
- Spares to MICE Hall (temporary)
- Some equipment returned to Universities.