



Project Manager's Report

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Overview

1. Liquid H₂
2. Trackers
3. Superconducting magnets
4. ISIS 2017/03.

H2 system

LH2 project complete

Was fully operational – satisfyingly boring.

- Slightly slower to fill than desired.
- Data-taking excellent
 - All Flip and solenoid mode data with LH2 full completed
 - M2 off & M2 on – no issues with M2 itself
 - SSD pressure rises with M2 on when main coil field above 2T. SSD magnet is stressed.
 - Two flip mode settings complete with LH2 empty
- unitl....
 - ISIS problems, early end to cycle.



Trackers

Hardware

Dave Adey – Melissa Uchida, Paul Kyberd, Chris Hunt on

- Increased number of dead channels.
- Temperature margin reduced.
- Extensive work required for manual re-calibration x2.
- Regulation set point on 1 cassette required after ISIS2017/02.
- Manual re-cal for only 1 cryostat. – in progress

Software

- Adam Dobbs moving on – replaced by
 - Paolo Francini, Durga Rajaram
 - Chris Hunt
- Software ‘features’ – solutions devised

Superconducting magnets

SS magnet re commissioned 9th to 18th August
Magnet run-up for data-taking ran to plan.

- No problems during ISIS 2017/02
- Adsorber change 1st and 2nd November
 - SSU CC5 poor performance - compressor change?

FC magnet – no current problems except
slight leak from helium volume into insulation
volume. Not currently problematic

Data-taking

- 2/3^{rds} shifts full
 - excellent response from shifters.
- Please make sure MiceAdmin know about your accommodation requirements – early.
- Aim generally 1M, 1M, 2M triggers at 3,6,10mm emittance
- Hard to accelerate schedule without magnet ramps in the middle of the night.
- Some risk as we have never achieved extended run of daily magnet changes.

ISIS User Cycle 2017/02: detailed MICE run plan							Version 4	
Date	Day	Magnet Expert	Shift	Absorber	SSD/M2	Activity	Shift blk	Comment
30 Oct-13	Monday		08:00			D5 cooldown		
31 Oct-13	Tuesday		08:00			S5 magnet adsorber change. AC maintenance. Conventional magnet crate reset		
01 Nov-13	Wednesday		08:00			S5 magnet adsorber change. AC maintenance		
02 Nov-13	Thursday		08:00					
03 Nov-13	Friday		00:00			Review alarms, Magnets: MoM 'ramp to zero' GUI test		
04 Nov-13	Saturday		00:00					
05 Nov-13	Sunday		00:00					
06 Nov-13	Monday		00:00					
07 Nov-13	Tuesday		00:00					
08 Nov-13	Wednesday		00:00			AC maintenance		
09 Nov-13	Thursday		00:00			Expert led start		
10 Nov-13	Friday		00:00					
11 Nov-13	Saturday		00:00					
12 Nov-13	Sunday		00:00					
13 Nov-13	Monday		00:00			Expert led start-up		
14 Nov-13	Tuesday		00:00	LH2 empty	OFF			
15 Nov-13	Wednesday		00:00	LH2 empty	OFF	Ramp to 2017-02-3; LH2 M2/c; data taking		
16 Nov-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-3; data taking		
17 Nov-13	Friday		00:00	LH2 empty	OFF	Flip-mode, 2017-02-3; data taking		
18 Nov-13	Saturday		00:00	LH2 empty	OFF	Flip-mode, 2017-02-4; data taking		
19 Nov-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-4; data taking		
20 Nov-13	Monday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-5; data taking		
21 Nov-13	Tuesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-5; data taking		
22 Nov-13	Wednesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-6; data taking		
23 Nov-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-6; data taking		
24 Nov-13	Friday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-6; data taking		
25 Nov-13	Saturday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-7; data taking		
26 Nov-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-7; data taking		
27 Nov-13	Monday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-7; data taking		
28 Nov-13	Tuesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-8; data taking		
29 Nov-13	Wednesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-8; data taking		
30 Nov-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-8; data taking		
01 Dec-13	Friday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
02 Dec-13	Saturday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
03 Dec-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
04 Dec-13	Monday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
05 Dec-13	Tuesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
06 Dec-13	Wednesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
07 Dec-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
08 Dec-13	Friday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
09 Dec-13	Saturday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
10 Dec-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
11 Dec-13	Monday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
12 Dec-13	Tuesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
13 Dec-13	Wednesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
14 Dec-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
15 Dec-13	Friday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
16 Dec-13	Saturday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
17 Dec-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
18 Dec-13	Monday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
19 Dec-13	Tuesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
20 Dec-13	Wednesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
21 Dec-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
22 Dec-13	Friday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
23 Dec-13	Saturday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
24 Dec-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
25 Dec-13	Monday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
26 Dec-13	Tuesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
27 Dec-13	Wednesday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
28 Dec-13	Thursday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
29 Dec-13	Friday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
30 Dec-13	Saturday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		
31 Dec-13	Sunday		00:00	LH2 empty	OFF	Soli-mode, 2017-02-9; data taking		

Data Plan

ISIS User Cycle 2017/02; detailed MICE run plan

Version 4

31-Oct-17

Date	Day	Magnet Expert	Shift	Absorber	SSD(M2)	Activity	Shift blk	Comment
30-Oct-17	Monday		08:00			DS cooldown		
31-Oct-17	Tuesday		08:00			SS magnet adsorber change. AC maintenance. Conventional magnet crate reset		
01-Nov-17	Wednesday		08:00			SS magnet adsorber change. AC maintenance		
02-Nov-17	Thursday		08:00					
03-Nov-17	Friday		00:00			Review alarms, Magnets: MoM 'ramp to zero' GUI test		
04-Nov-17	Saturday		00:00					
05-Nov-17	Sunday		00:00					
06-Nov-17	Monday		00:00					
07-Nov-17	Tuesday		00:00					
08-Nov-17	Wednesday		00:00			AC maintenance		
09-Nov-17	Thursday		00:00			Expert led start		
10-Nov-17	Friday		00:00					
11-Nov-17	Saturday		00:00					
12-Nov-17	Sunday		00:00					
13-Nov-17	Monday		00:00			Expert led start-up		
14-Nov-17	Tuesday		00:00	LH2 empty	OFF			
ISIS Start 8am		LH2 empty 2 settings	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		
15-Nov-17	Wednesday		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		
16-Nov-17	Thursday		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	OFF	Soln-mode, 2017-02-5; data taking		
17-Nov-17	Friday		00:00	LH2 empty	OFF	Soln-mode, 2017-02-5; data taking		
			08:00	LH2 empty	OFF	Switch to 2017-02-6; 140 MeV/c data taking		
			16:00	LH2 empty	OFF	Soln-mode, 2017-02-6; data taking		
18-Nov-17	Saturday		00:00	LH2 empty	OFF	Soln-mode, 2017-02-6; 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				
		08:00	LH2 empty	OFF		Switch to 2017-02-1; 140 MeV/c data taking		
		16:00	LH2 empty	OFF		Soln-mode, 2017-02-1; data taking		
21-Nov-17	Tuesday	00:00	LH2 empty	OFF	Soln-mode, 2017-02-1; data taking			
		08:00	LH2 empty	OFF	Switch to 2017-02-2; 140 MeV/c data taking			
		16:00	LH2 empty	???	Soln-mode, 2017-02-2; data taking			
22-Nov-17	Wednesday	00:00	LH2 empty	???	Soln-mode, 2017-02-2; data taking			
		08:00	LH2 empty	???	Ramp magnets down			
		16:00	LH2 empty	???				
23-Nov-17	Thursday	00:00		???				
		08:00		???				
		16:00		???				
24-Nov-17	Friday	00:00		???				
		08:00		OFF	Ramp magnets			

Absorber change

Shift blk 1

Shift blk 2

Data Plan

Data Plan

24-Nov-17	Friday	Absorber change	08:00 16:00	???	???	???	
25-Nov-17	Saturday	LiH empty, 3 solenoid 2 flip.	00:00 08:00 16:00	Empty Empty Empty	OFF OFF OFF	Ramp magnets Solv-mode, 2017-03-1; data taking Magnet change	
26-Nov-17	Sunday		00:00 08:00 16:00	Empty Empty Empty	OFF OFF OFF	Solv-mode, 2017-03-2; data taking Magnet change	
27-Nov-17	Monday		00:00 08:00 16:00	Empty Empty Empty	OFF OFF OFF	Solv-mode, 2017-03-3; data taking Magnet change	
28-Nov-17	Tuesday	LiH M2 empty	00:00 08:00 16:00	Empty Empty Empty	OFF OFF ON	Flip-mode, 2017-03-3; data taking Magnet change	
29-Nov-17	Wednesday		00:00 08:00 16:00	Empty Empty Empty	ON ON ON	Flip-mode, 2017-03-4; data taking Magnet change	
30-Nov-17	Thursday		00:00 08:00 16:00	Empty Empty Empty	ON ON ON	Flip-mode, 2017-03-4; data taking Change magnets	
01-Dec-17	Friday	LiH field off	00:00 08:00 16:00	Empty Empty Empty	ON ON ON	Flip-mode, 2017-03-3; data taking Magnet change	
02-Dec-17	Saturday		00:00 08:00 16:00	Empty Empty Empty	ON ???	Solv-mode, 2017-03-2; data taking Ramp down	
03-Dec-17	Sunday		00:00 08:00 16:00	Empty Empty Empty	???	LIH field off	
04-Dec-17	Monday	LiH M2 empty	00:00 08:00 16:00	Empty Empty Empty	???	LIH field off Ramp to solv-mode, 2017-03-2	
05-Dec-17	Tuesday		00:00 08:00 16:00	Empty	???	Solv-mode, 2017-03-2; data taking Ramp down	
06-Dec-17	Wednesday		Absorber change	00:00 08:00 16:00	???	???	
07-Dec-17	Thursday	LiH M2	00:00 08:00 16:00	???	???	Magnet change	
08-Dec-17	Friday		00:00 08:00 16:00	LIH LIH LIH	ON ON ON	Flip-mode, 2017-03-3; data taking Magnet change	
09-Dec-17	Saturday		00:00 08:00 16:00	LIH LIH LIH	ON ON ON	Flip-mode, 2017-03-4; data taking Magnet change	
10-Dec-17	Sunday	Absorber change	00:00 08:00 16:00	LIH LIH LIH	ON ON ON	Solv-mode, 2017-03-1; data taking Magnet change	
11-Dec-17	Monday		00:00 08:00 16:00	LIH LIH	ON ON	Solv-mode, 2017-03-2; data taking Ramp down	
12-Dec-17	Tuesday		00:00 08:00 16:00	Transition	???	???	
13-Dec-17	Wednesday	Wedge	00:00 08:00 16:00	Wedge	ON	???	
14-Dec-17	Thursday		00:00 08:00 16:00	Wedge	ON	???	
15-Dec-17	Friday		00:00 08:00 16:00	Wedge	ON	???	
16-Dec-17	Saturday	Contingency	00:00 08:00 16:00	Wedge	ON	Magnet change	
17-Dec-17	Sunday		00:00 08:00 16:00	Wedge	ON	Solv-mode, 2017-03-1; data taking Magnet change	
18-Dec-17	Monday		00:00 08:00 16:00	Wedge	ON	Solv-mode, 2017-03-2; data taking Magnet change	
19-Dec-17	Tuesday	ISIS off	00:00 08:00 16:00	Wedge	ON	Flip-mode, 2017-03-3; data taking Magnet change	
20-Dec-17	Wednesday		00:00 08:00 16:00	Wedge	ON	Flip-mode, 2017-03-4; data taking	

Sf
Shift blk 3
Shift blk 4
Shift blk 5
Shift blk 6
Shift blk 7