



# Project Manager's Report

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# 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 20<sup>th</sup> 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 2017/03 Status

SSD Quench Mon 4<sup>th</sup> 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 5<sup>th</sup> refill with He, 230l
- Magnets back to field without M2 for data-taking at 21.30.
- SSD M2 full field Wed 6<sup>th</sup>

## 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

		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	Change	???	Magnet change	
		16:00		???	Flip-mode, 2017-02-8; data taking	
08-Dec-17	Friday	00:00		???	Flip-mode, 2017-02-8; data taking	
		08:00	???	???	Magnet change	
		16:00	???	???	Flip-mode, 2016-05-1; data taking	
09-Dec-17	Saturday	00:00	???	???	Flip-mode, 2016-05-1; data taking	
		08:00	Empty	???	Ramp magnets down	
		16:00	Empty	ON		
10-Dec-17	Sunday	00:00	Empty	ON		
		08:00	Empty	ON		
		16:00	Empty	ON		
11-Dec-17	Monday	00:00	Empty	ON		
		08:00	Empty	ON	Magnet ramp	

SSD Quench

# Data Plan



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

# 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.