

# Operations

- ▶ Running periods and system performance
- ▶ Operations Management:
  - ▶ MOMs
  - ▶ Duty Coordinators
  - ▶ BLOCs
- ▶ Shifts and shift allocation

# ISIS Schedule

ISIS Cycle	Date From	Date To	1 Jun 15	1 Jul 15	1 Aug 15	1 Sep 15	1 Oct 15	1 Nov 15	1 Dec 15	1 Jan 16	1 Feb 16	1 Mar 16	1 Apr 16	1 May 16	1 Jun 16	1 Jul 16
2015/01a	2 Jun 15	6 Jul 15														
2015/01b	14 Jul 15	24 Jul 15														
2015/02	8 Aug 15	16 Oct 15														
2015/03	3 Nov 15	18 Dec 15														
2015/04	14 Feb 16	1 Apr 16														
2016/01	12 Apr 16	20 May 16														
2016/02	28 Jun 16	29 Jul 16														

- ▶ Cycle 2015/03 (Nov 2015 – Dec 2015): Absorber and Lh2 system work; Decay solenoid PSU repair; SS power supply and vacuum work; Focus coil commissioning; Xe absorber running.
- ▶ Cycle 2015/04 (Feb 2016 – March 2016) : Calibration and alignment; Decay solenoid PSU re-commissioning; Empty and LiH absorber running.

# Cycle 2015/03

User cycle 2015/03 was focussed on QP/QD system work, focus coil magnet commissioning, and further development and testing of controls, online reconstruction and online monitoring

Data-taking opportunities were limited, but utilised when they arose. Most data was used to:

- ▶ test the focus coil at 100A and -100A
- ▶ take scattering data on Xe with no magnetic field

# Cycle 2015/04

User cycle 2015/04 was focussed on :

- ▶ calibration and alignment
- ▶ data-rate studies
- ▶ empty target scattering data at 172, 200 and 240 MeV/c
- ▶ LiH scattering data at 172, 200 and 240 MeV/c
  
- ▶ Return of DS PSU allowed us to take the required amount data in this user cycle. DS now working well – thanks to Mike Tucker, Mike Courthold and Vicky Bayliss.

# Performance

- ▶ Ryan's talk earlier showed that, in general, data-taking has been straight-forward. "Standard" data-taking is very smooth. **Thanks to all shifters, MOMs, experts and analysers for their prompt care and attention during data-taking.**
- ▶ New procedures:
  - ▶ on elog there is a shift checklist to fill out at least twice a shift
  - ▶ change control procedures for online software during production running
  - ▶ MOM can lock-out remote access to controls and monitoring machines during running – we are planning a hardware (key based) interlock

# Time & Motion

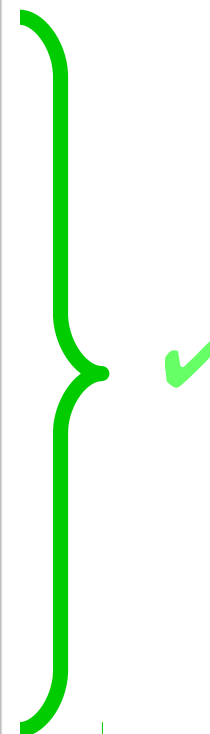
Date	Data-taking (hr) / 16 (nominal)	Down time (hrs)				Operational Uptime (Data-taking / (16 – ISIS – MICE issue ))
		Run Change	ISIS Issue	MICE Issue	MICE Training	
12/3	13.4	1.5		1.1		90%
13/3	13.5	1	1	0.5		90%
14/3	0.2		12.8		3	
15/3	13.0	1.5	1	0.5		90%
16/3	12.7	0.9	1.4	1		87%
17/3	12.0	1		3		75%
18/3	12.2	0.8			3	75%
19/3	8.3	0.8	6.9			92%
Total	85.3	7.5	23.1	6.1	6	87%

# System Performance

System	System Health	Comment
Tracker	Good	Cryo 3 had a moment
KL	Good	
CKOV	Good	
TOF	Good	
EMR	Good	
DAQ/Trigger	Good	Tendency to fail to start a run after hibernation
Run Control	Good	Include absorber details in CDB
OnRec	Good	
OnMon	Good	
Conventional Magnets	Warning	Some water leaks. Chilled water system needs attention.
Decay Solenoid & PSU	Good	Some instability observed when ramping from zero. Being monitored.
Proton Absorber	Good	Sticking of one slab reported (but needs to be understood)

# MOM Roster

Date From	Date To	MOM
7th January 2015	4th February 2015	Chris Rogers
4th February 2015	4th March 2015	Pierrick Hanlet
4th March 2015	1st April 2015	Yordan Karadzhev
1st April 2015	29th April 2015	Milorad Popovic
29th April 2015	27th May 2015	Paul Hodgson
27th May 2015	24th June 2015	Victoria Blackmore
24th June 2015	22nd July 2015	Ryan Bayes
22nd July 2015	19th August 2015	Paul Hodgson
19th August 2015	16th September 2015	Victoria Blackmore
16th September 2015	14th October 2015	Yordan Karadzhev
14th October 2015	4th November 2015	Melissa Uchida
4th November 2015	2nd December 2015	Ed Overton
2nd December 2015	30th December 2016	Paolo Franchini
4th January 2016	3rd February 2016	<Maintenance Month>
16th February 2016	8th March 2016	Paul Kyberd
7th March 2016	25th March 2016	Ryan Bayes
6th April 2016	28th April 2016	Not required
27th April 2016	25th May 2016	Not required
22nd June 2016	12th July 2016	Paolo Franchini
11th July 2016	29th July 2016	Melissa Uchida
12th September 2016	6th October 2016	?
4th October 2016	28th October 2016	Milorad Popovic
9th November	28th November 2016	Ed Overton
26th November	16th December 2016	?





# BLOC roster

- ▶ BLOC availability could be a showstopper to future running
- ▶ We've had to scramble several times already to find trained BLOCs
- ▶ If you have BLOC experience, or can offer to be BLOC please talk to Henry or myself for re-training. Henry is trying to make this as “on-call” a position as possible
- ▶ Henry will offer BLOC training in June
- ▶ We won't run safely (& hence won't run) without a BLOC in place.

# Duty Co-ordinators

- ▶ Communication, scheduling and co-ordination between Operational and Hall activities has (IMHO) been far clearer with the DC post in play.
- ▶ Victoria Blackmore, Paul Hodgson, Henry Nebrensky and Craig MacWaters are now PPD-approved DCs
- ▶ There is good co-ordination and communication between them.
- ▶ Formal transfer process of MCR control from DC to MOM and back has been defined. This also operates as an initial checklist for the MOM. **Thanks should go to DCs for this (large) effort.**

# Shifts

- ▶ **2015/03 (Nov/Dec)** : 90 shifts offered of which 80 were allocated.
- ▶ **2015/04 (Feb/Mar)** : 110 shifts offered with 100% sign up.

Thank you to every one who signed up for shifts.

We are relying **too much on locals** being kind enough to fill the shift lists. Many locals have done lots of shifts already (and are also SOCs, BLOCs, DCs and MOMs)

There are still quite a few collaborators who could do more (or, dare I say, some) shifts.

There is still time – 3 and a bit more user cycles – please look at your schedules and identify places to fit your shifts in. Shift lists typically open early to academics & scientists.

# Next user cycles

depending on outcome of the chilled water discussion



User Cycle	Shifts from	Shifts to	Days	Comments
2016/01	April 15th	May 1	9	Three weekends
2016/02	June 28	July 29	31	
2016/03	Sep 15	Oct 28	45	
2016/04	Nov 15	Dec 16	31	

# Future Cycles

**Cycle 2016/01 (Apr 2016 – May 2016)** : Expected to be largely focussed on QP/QD, spectrometer and SSD realignment work. Some data-taking to bolster zero-absorber data set in April (provided we can run at all after chilled water discussion and **we get shift signup**)

**Cycle 2016/02 (June 2017 – July 2016)** : Depends on what is available.

- ▶ SSU + FC + SSD (no M1/M2) : can do energy loss/scattering baseline measurements with empty absorber
- ▶ Including M2D : could aim for a cooling measurement

Q: Will we power M2D and, if so, when?

**Cycle 2016/03 ( Sep 2016 – Oct 2016)** : LH2 absorber

**Cycle 2016/04 ( Nov 2016 – Dec 2016)** : LiH absorber

# Summary

- ▶ Physics data has been taken in each of the previous user cycles to do straight track Xe, Empty, LiH scattering measurements and data-rate studies.
- ▶ MICE data-taking is now a generally smooth procedure if systems are unchanged.
- ▶ Changes to online systems during running must go through MOM first and follow change control process.
- ▶ DC post working well (thanks to all DCs) and interaction with MOM is now understood.
- ▶ **Need BLOCs**
- ▶ More data-taking to do **if we get shift sign up.**