

## ISIS Neutron & Muon Source User Committee

7 December 2018, The Cosener's House Abingdon, 10-00 – 13-00.

### **Present:**

- IUG1 Crystallography  
Emma McCabe (Kent)  
Michael Hayward (Oxford)
- IUG2 Liquids & amorphous  
Paul Bingham (Sheffield Hallam)  
Emma Barney (Nottingham)
- IUG5 Molecular Spectroscopy  
Roberto Senesi (Rome, Italy)  
Alexander O'Malley (Bath)
- IUG7 Engineering  
Catrin Davies (Imperial)  
Richard Moat (Open University)

Robert McGreevy – ISIS Director

Sean Langridge – ISIS Diffraction & Materials Division Head

Steve Wakefield – ISIS Experimental Operations Division Head

Philip King – ISIS Spectroscopy & Support Division Head

Zoe Bowden – Head of ISIS Operations

Andrew Kaye – ISIS User Programme Manager

### **Apologies:**

- IUG3 Large Scale Structures  
Aiden Hindmarch (Durham)  
Tim Knowles (Birmingham)
- IUG4 Excitations  
Kelly Morrison (Loughborough)  
Chris Stock (Edinburgh)
- IUG6 Muons  
Nicola Morley (Sheffield)  
Martin Lees (Warwick)

The meeting opened with introductions by all present.

**Minutes from the June 2018 IUC meeting** – these were approved with no comments.

### **Actions arising from previous meetings**

Action from previous meeting and status	Status	Responsible	Meeting action added
Raise RCaH access issues at the RCaH review.	<i>Done</i>	Philip	June 2018
Consider how to report cancelled experiments to IUC	<i>A mechanism for this is still under consideration</i>	Steve W, Philip	June 2018
Notify users when successful proposals requesting RCaH time are passed to RCaH; and	<i>Done: in place for the 19/1 round</i>	Andrew Kaye	June 2018

to pass RCaH contact details to users at this point.			
Talk to Tom Griffin about aggregated data DOIs.	<i>There are ongoing efforts to promote usage and availability of DOIs; further refinements will be discussed once basic usage and availability is improved.</i>	Philip King	June 2018
Contact those IUC members who have served more than 3 years.	<i>Done</i>	Philip King	June 2018
Discuss photo-ID requirement for site entry with site security	<i>Discussions on this are continuing with STFC security. Photo-id is likely to come at some point, but timescales aren't known.</i>	Andrew Kaye	June 2018
Consider short Xpress reports and how these can be captured	<i>Will be done once experiment report system is made online</i>	Andrew Kaye	June 2017
Add dietary requirements and food allergy notice to user office webpage.	<i>Done</i>	Andrew Kaye	June 2017
Add notices near vending machines providing instructions regarding faulty user cards.	<i>Done</i>	Andrew Kaye	Dec 2017

## Reports from user groups

**UG1 - Crystallography:** A user group meeting was held in Nov 2018 jointly with the BCA and also with the Diamond Crystallography group. A new joint PDRA between ISIS and Diamond working on PDF is welcome, and there is now a Diamond member on the ISIS Crystallography FAP. A good number of publications from HRPD & Wish in particular have been noted. The current plan to do a limited refurbishment of HRPD to improve basic conditions for users and electronics is welcome, with the full upgrade continuing to be supported when possible. From the user satisfaction survey, comments are overall positive; there are some specific sample environment comments on GEM, and an issue over software support (which has probably been dealt with via a workshop organised over the summer).

**Action: Debbie Greenfield:** will set up a mechanism with Philip for looking at user comments on software, and specifically will explore the issue of processing of PDF within Mantid (and whether SNS have implemented anything).

**UG2 – Disordered Materials:** The proposed Sandals upgrade is welcome: the collimation and chopper have been approved; other things are part of future projects. A replacement for Alan Soper was discussed; a staffing plan for the DM group is in place which includes software. EPSR & GUDRUN software support is the concern for users, and an ongoing issue for ISIS. WIFI across the

site was raised – STFC is currently upgrading all WIFI across RAL/Cosener's. Overall feedback from users is very good and positive; it is good to see new users doing new things with sample environment equipment. On the catering side, there were comments about hot food needing to be hot and evening & weekend food quality not good.

**UG3 – Large Scale Structures:** no report

**UG4 - Excitations:** no report

**UG5 – Molecular Spectroscopy:** A Molecular Spectroscopy user meeting was recently held at UCL with a focus on industrial challenges; lots of students attended, and the proceedings will come out as a RAL report. A workshop on lattice dynamics was held in Tenerife in collaboration with ILL, ESS, and the Technical University of Denmark, following the pattern of user meetings every 18 months with workshops in between. The Swedness programme to train new Swedish users is working well, with experiments on Molecular Spectroscopy instruments. The group newsletter is distributed to the user community every six months. The satisfaction survey shows overall that users are happy; further development of in-situ Raman was requested; a gas loading manifold is still requested; a Mantid interface for visualisation was requested. It is good to see the Osiris Si analyser project going forward; and future possible projects – Tosca secondary, Osiris guide, Vesuvio+ – are all supported.

**UG6 - Muons:** no report

**UG7 - Engineering:** User satisfaction reports have a lot of praise for technicians and instrument scientists, particularly responses when things go wrong. Processing on the fly on IMAT was raised; and there are concerns that data analysis software on Engin-x (GSAS) is very dated. Higher temperature and vacuum furnaces would be good.

**Action: Sean** to explore GSAS software on Engin-x and whether latest versions are being used.

The issue of whether users could have bicycles on site was raised. There were concerns that similar schemes at other labs require user training, regular bike maintenance, etc, and this may not be simple to set up.

The issue, on FAP 7, of archaeometry proposals competing with engineering ones was raised. The archaeometry community sometimes need many measurements across collections of specimens which ISIS is not traditionally set up to do, and which don't look to the panel to be competitive scientifically with other demands on the instrument. We may wish to consider an archaeometrist on the IUC; and a review of how we assess archaeometry proposals was suggested.

**Action: Philip:** consider review of archaeometry proposal assessment.

**Action: Philip:** explore NERC support for archaeometry proposals.

#### **Update from ISIS – Robert McGreevy**

Points from Robert's talk included:

- ISIS now has a very large number of public visits, and some of those this year are targeted at the year of Engineering.
- The facility has been running very well recently, and overall there is a continued increase in total current delivered per year.
- There have been a very healthy proposal numbers across the last three rounds, together with rapid access proposals, including increased proposals from India, China & Sweden

- 2020 long shutdown will be for replacement of a linear accelerator tank and refurbishment of the first target station. TS1 will be off from Sept 2020 – Oct 2021; for TS2 Sept 2020 – May 2021. We will cancel the April 2020 proposal round, and the Oct 2020 round is likely to be for TS2 instruments only.
- Zoom is a new SANS instrument and is just becoming available for experiments; Mari is about to come back into the programme after guide and electronics upgrades.
- Future opportunities proposals: new instruments (Endeavour), development work for ISIS-2 and a bid for the International Stress Engineering Centre are all being taken forward in some way. There is also a facility studentships proposal which may also be taken forward with Diamond and CLF. The Endeavour proposal will be taken forward through a UKRI strategic priorities fund bid, and we may hear about this early next year.
- AI/Machine learning is being explored – there is funding for us to look at the relevance and possibilities of this for facility operations and science.
- The League of Advanced European Neutron Sources (LENS) has been set up to formalise collaborations between facilities and enable conversations with the Commission on future projects and funding.
- UK contributions to the ESS are ongoing, including accelerator components, instruments and software.
- International partnerships include ongoing agreements with Sweden, the Netherlands, Japan and India.
- Specific instrument and science highlights were also presented.

#### **Update on ISIS Machine Operations – Steve Wakefield**

- The last few run cycles have seen good running with availability at 90%+ for all three.
- A description was given of the significant faults across the three cycles

#### **Catering and Vending Update – Andrew Kaye**

- An update was presented on the new vending machines and new coffee machines that have just been installed.
- There was discussion on whether the daily amount given to users for food is OK. Conclusion was that the amount is fine, and that some flexibility for users to buy for their group at times is good; provision for getting lunch on the day after an experiment is welcome. Staff being able to charge their own cards was raised – this is currently being explored.

**Action: Andrew:** update the IUC at the next meeting on staff being able to load cash onto their cards.

There was discussion regarding the bar facilities at Ridgeway; AK to check that this is still operating on weekday evenings.

**Action: Andrew:** to check that the bar facilities are still operating during evenings at Ridgeway.

The serving of hot food followed by a long wait at tills so that it's cold when eaten was raised.

**Action: Andrew** to raise the hotness of food and long till queues.

#### **AoB**

- There was discussion on the timing of the IUC meeting, and whether there's a better day to hold it – is after the FAPs a good day? Would 2<sup>nd</sup> week of Jan be better? But perhaps

there's no good time, as different people have different restrictions. There was no overall decision to change the current date.

- The structure of the UK Neutron & Muon Science and User Meeting was discussed. Putting facility update presentations online after would be welcome

**Action: Philip:** put NMSUM update talks online after the meeting.

- There was encouragement to have early career researchers on FAPs – as this would be a good learning experience for them – perhaps even to have them as observers.
- The new FAP member selection process was noted and discussed.

#### **Date of next meeting**

The next IUC meeting is Fri 7 June 2019

#### **Actions arising and ongoing:**

<b>Action from previous meeting and status</b>	<b>Status</b>	<b>Responsible</b>	<b>Meeting action added</b>
Consider short Xpress reports and how these can be captured	<i>Will be done once experiment report system is made online</i>	Andrew Kaye	June 2017
Set up a mechanism with Philip for looking at user comments on software, and specifically explore the issue of processing of PDF within Mantid (and whether SNS have implemented anything).		Debbie Greenfield	Dec 2018
Explore GSAS software on Engin-x and whether latest versions are being used.		Sean Langridge	Dec 2018
Consider review of archaeometry proposal assessment.		Philip King	Dec 2018
Explore NERC support for archaeometry proposals.		Philip King	Dec 2018
Update the IUC at the next meeting on staff being able to load cash onto their cards.		Andrew Kaye	Dec 2018
Check that the bar facilities are still operating during evenings at Ridgeway.		Andrew Kaye	Dec 2018
Raise the hotness of food and long till queues.		Andrew Kaye	Dec 2018
Put NMSUM update talks online after the meeting.		Philip King	Dec 2018