ISIS User Committee

Friday 7 June 2013, 10:00 am

The Cosener's House, Abingdon

The User Committee represents the ISIS user community on all aspects of ISIS operations.

Committee members are drawn from ISIS user groups and ISIS senior managers.

Users may pass any comments or concerns they have about ISIS to the user group representatives or contact the Chairman of the ISIS User Committee, Jon Goff.

Urgent matters are dealt with as they arrive. Less urgent matters are discussed at the next meeting of the committee. Committee meetings are held immediately after the facility access panel meetings in June and December.

IUC Membership – June 2013

Chair	Jon Goff	Royal Holloway University of London
IUG1 Crystallography	Anthony Powell	Herriot Watt University
	Peter Slater	University of Birmingham
IUG2 Liquids & amorphous	John Holbrey	Queen's University of Belfast
	Beau Webber	University of Kent
IUG3 Large Scale Structures	Jeremy Lakey	Newcastle University
	Ali Zarbakhsh	Queen Mary College, London
IUG4 Excitations	Jon Goff	Royal Holloway University of London
	Phil Salmon	University of Bath
IUG5 Molecular Spectroscopy	Sylvia McLain	Oxford University
	Christoph Salzmann	University College London
IUG6 Muons	Don Paul	Warwick University
	Alan Drew	Queen Mary University of London
IUG7 Engineering	David Dye	University of Manchester
	Michael Preuss	Imperial College London
	Hongbiao Dong	University of Leicester

Robert McGreevy	ISIS Director
Zoe Bowden	Head ISIS Experiment Operations Division
Debbie Greenfield	Head ISIS Instrumentation Division
Philip King	Head ISIS Spectroscopy and Support Division
Sean Langridge	Head ISIS Diffraction Division
Andrew Kaye	ISIS User Programme Manager
Christy Kinane	Recording Secretary

Apologies were noted from: Peter Slater, Ali Zarbakhsh, Christoph Salzmann, David Dye, Hongbiao Dong.

1. WELCOME

The Chairman welcomed the ISIS User Committee members.

2. MINUTES AND ACTIONS ARISING

The minutes from December 2012 meeting were noted and approved. These minutes are publically available on line.

All actions from the previous meeting were noted as complete. Further follow-up actions:

Action 12-2-02	To invite Uschi Steigenberger to next IUC meeting to report on the progress of the facilities forum at the IOP	**Philip King**

Uschi Steigenberger was to report on the IOP facilities forum, however she was unable to attend the IUC meeting. Jeremy Lakey (also an IoP facilities forum member) to provide an update to the IUC at the next IUC meeting. **Action: Jeremy Lakey**

Action 12-2-03	Send letter to university departments to remind them where to find the REF reps information and to provide information on their departmental figures.	**Philip King**

It was acknowledged that this hadn't been sent, but there was still time and one would be sent. **Action: Andrew Kaye**

Action 12-2-04	The User Office should open the User Feedback system and make the user community aware of it at every opportunity	**Andrew Kaye**

The user community had been contacted prior to this meeting to ask for feedback on their experiences at ISIS. Around 40 responses had been received and sent to IUC reps.

Action 12-2-05	ISIS should make material available on the ISIS website to enable users in promoting the facility. Things like pictures, videos, logos, etc.	**Philip King**

It was announced that at ICNS 2013 there will be memory sticks handed out with promotional material, graphics etc., for inclusion in PowerPoint presentations. This will also be made available on the web for the wider user community.

3. CHAIRMAN'S REPORT **Jon Goff**

Prof Goff gave the IUC an update on

- the STFC Programmatic Review process
- the Neutron and Muon User Meeting (NMUM) which had taken place at Warwick in April
- comments from around 200 ISIS user community members regarding funding for facility operations that he had received following NMUM. Jon had

subsequently written to Colin Miles, Chair of the Large Facilities Steering Group, summarising the views of the community.

4. STFC UPDATE — John Womersley

Prof Womersley discussed the current facility funding situation and described the facility funding model process. Along with the other research councils, STFC is awaiting the outcome of the spending review announcement due on 26 June 2013.

Prof Womersley described the House Of Lords Science and Technology Select Committee enquiry into Scientific Infrastructure which was presently collecting evidence, together with other ways that the user community could express its opinion on facility issues.

Action: Jon Goff to consider an IUC response to the HoL enquiry

Prof Womersley discussed the need for a UK neutron / photon strategy and engagement with the ESS.

5. CHAIRMAN'S REPORT

6. Reports from User Groups – achievements and issues arising

Each user group gave a short (5 minute) report on activities.

a. **Diffraction:**

There is a high degree of satisfaction with the instrument suite for crystallography. Feedback from users also indicates that the community regard the scientific, technical and user office support as excellent, whilst the range of and support for sample environment equipment is identified as a major strength of ISIS. The new Polaris continues to perform well and the implementation of event mode data collection is seen as offering benefits to those seeking to conduct in-situ studies. The installation of further detectors on WISH will be of great benefit to IUG1. Many members of the Crystallography User Group are also users of Diamond and therefore the recent appointment of Matt Tucker to a joint ISIS/Diamond position is welcomed as a way of promoting the synergy between the two facilities. There has been no meeting of IUG1 since the last ISIS User Committee meeting but the next Annual Meeting of IUG1, to be held jointly with the PCG of the BCA, will take place in November 2013. The reduction in the number of days of ISIS operation is the over-riding concern to members of the Crystallography User Group, especially as 120 days is already regarded as being to be too few. In the web-based feedback, several concerns were expressed about new procedures for the transportation of samples to ISIS. There was also a suggestion that the mail-in service be extended to other crystallography instruments.

b. **Disordered Materials:**

The user group held a meeting at Cosener's House in February, attended by ca. 40 people, the majority of whom stayed for the Data Analysis Workshop where new increments to the Gudrun and EPSR software were unveiled, designed to tackle the

challenges associated with non-arbitrary treatment of inelastic scattering and complex systems - especially containing crystalline mesoscopic domain structure.

An important, and welcome observation was that data from NIMROD experiments are starting to be published. Recognition that the difficulties and challenges associated with the complexity of data collected over such large Q ranges is starting to be understood and addressed.

c. **Large Scale Structures:**

The feedback from the users was overwhelmingly positive with the assistance of the instrument scientists being particularly well thought of. More help with data analysis was requested and as discussed during the user group meeting this could be provided by recorded webinars from staff who provide training at the training courses. This would enable users to gain acquaintance of data analysis and data gathering software with the instrument scientist describing the basics of the screen so that new users would be familiar with the set up before they arrive.

The decision to stop experiments on CRISP means a significant reduction in the time available for polarised and magnetic reflectometry users with POLREF still largely unproven and being developed. This results from the general staffing problems which also means that there is only one full time scientist on each of INTER (2nd most requested instrument) and SURF. Whilst we appreciate the reductions in funding facing ISIS these shortages have effects over and above the reduction in beam days.

d. **Excitations and Polarised Neutrons:**

There have been no user group meetings since the previous IUC meeting. The group plans to hold its user group meeting at the next NMUM meeting. This will likely not be a long tradition instrument group lines, but scientific interest groups.

The following comment on LET was raised in the web questionnaire:

“LET is really a superb instrument, and with excellent resolution is also very useful at its upper limit of possible Eis. The high-angle detectors should be installed as soon as possible.”

Response:

“Significant progress has been made on the LET completion project. The first new detector frames have been constructed and will be installed on LET in July. The new frames represent a significant improvement in detector stability. Discussions are on-going with Reuter-Stokes concerning the definition and replacement of faulty tubes.”

The web questionnaire requested “higher flux” on MAPS. There is a proposal for new guides on MAPS that will increase flux by an order of magnitude.

The new crystal alignment table on ALF has been installed. Further additions of beam-defining jaws and a Laue CCD camera will be installed this year.

The polarized neutron activity has been scaled back. This is due to the time required to fully optimize and commission Flynn (the polarized 3He filling station) and less-than-expected performance of the LET polarizer which was tested in February. The

WISH polarization project has been suspended so that manpower can be concentrated on installing PA on LET.

The group is in the process of recruiting a new scientist on MERLIN, and it is expected that the new post will be taken up in June.

A new Gd chopper has been installed on MERLIN. After further modifications this year (modifications to disc chopper and event-mode data collection) MERLIN will have the option of running in repetition-rate multiplication mode as is commonly used on LET. It is expected that 5 or 6 repetitions between 10 meV and 200 meV will be possible.

e. **Molecular Spectroscopy:**

The new upgrade on TOSCA is now in place which has led to the ability to measure samples which are much smaller in size than previously examined. ISIS management has instituted a external instrument review panel where MAPS, MARI and TOSCA will be in the first set of instruments assessed. Simulation has become much more common on TOSCA proposals in general where in the last submission round roughly 55% of TOSCA proposals contained simulations. TOSCA remains the most successful of the Molecular Spectroscopy instruments in terms of publications with around 120 in the last 5 years.

OSIRIS now has the capability of running neutron and Raman experiments simultaneously and the number of Xpress days available on this instrument has also increased. VESUVIO is due to have a viability meeting in November, headed by VESUVIO instrument scientist Andrew Seel, in order to assess the future of the instrument.

In general the Molecular Spectroscopy is understaffed in terms of instrument scientists.

f. **Muons:** (from notes at the meeting)

The Muon user community continue to produce high quality publications. It was reported to the IUC that the Muon Express Service is working well and bringing in new experiments and allowing testing. A new development of muon chip irradiation experiments was reported.

Good progress is being made on beamline upgrade project.

One problem was highlighted, the requirement for more technical support for the dilution fridges. A new person has been recruited and is being trained up to provide support in this area. There are good opportunities for development of the muon instruments at ISIS through pulse slicing and low energy muons.

g. **Engineering:**

No Updates were received from the Engineering community.

7. UPDATE FROM THE ISIS DIRECTOR — Robert McGreevy

Prof McGreevy outlined the ISIS strategy for the next 20 years, including the place of the facility within a European context and the capacity available at European neutron facilities to support user community neutron science. He outlined a development plan for ISIS, including an upgrade to the first target station target and moderators on a five year timescale to produce flux increases across the TS-1 instrument suite, refurbishment of parts of the linear accelerator on a similar timescale, and then, further into the future, possible linear accelerator upgrades or more significant facility developments. There is a to be an international review of ISIS later in 2013.

8. UPDATE ON ISIS OPERATIONS

It was reported that ISIS accelerator availability had improved over recent run cycles.

The Industrial Collaboration Research programme has been very successful in attracting industrial users to ISIS over the past year.

Sara Fletcher had recently taken up her post as ISIS impact manager, focusing on communications the scientific impact of ISIS. The committee were requested to let the facility know of any news stories relating to ISIS work.

It was pointed out to the committee that the Facility User Office had now relocated to the main laboratory reception building, R75.

9. NEUTRON AND MUON USERS MEETINGS 2013

The committee discussed the format of the NMUM meeting this year. All at the meeting agreed that it had been a better meeting than previous years and would like it to stay the same next year.

10. UPDATE ON CDTs

The committee were updated on the current situation of the EPSRC Centres for Doctoral Training (CDT) process and its relationship to ISIS. ISIS has been in communication with 25 CDT bidders in the first part of the process. Following the initial short listing process, around 15 bids remained with an ISIS link.

11. AoB and Date of Next Meeting

Date of next IUC meeting will be after the next round of ISIS FAPs, Friday 13th of December 2013.