

ISIS User Committee

Friday 8 December 2017, 10:00

The Cosener's House

Present:

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| Emma McCabe (Kent) | IUG1 Crystallography |
| Emma Barney (Nottingham, Chair) Paul Bingham (Sheffield Hallam) | IUG2 Liquids & Amorphous |
| Tim Knowles (Birmingham) | IUG3 Large Scale Structures |
| Kelly Morrison (Loughborough) | IUG4 Excitations |
| Christoph Salzmann (UCL) Roberto Sensei (Rome, Italy) | IUG5 Molecular Spectroscopy |
| Catrin Davies (Imperial) | IUG7 Engineering |
| Zoe Bowden | Head, ISIS Operations |
| Philip King | Head, ISIS Spectroscopy and Support Division |
| Sean Langridge | Head, ISIS Diffraction Division |
| Steve Wakefield | Head, ISIS Experiment Operations Division |
| Debbie Greenfield | Head, ISIS Instrumentation Division |
| Andrew Kaye | ISIS User Programme Manager |
| Matt North | Minutes |

Apologies:

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| Peter Slater (Birmingham) | IUG1 Crystallography |
| Aidan Hindmarch (Durham) | IUG3 Large Scale Structures |
| Nicola Morley (Sheffield) Martin Lees (Warwick) | IUG6 Muons |
| Hongbiao Dong (Leicester) | IUG7 Engineering |
| Robert McGreevy | ISIS Director |

1. Welcome & Introductions

Emma Barney opened the IUC meeting with round table introductions.

2. Minutes & Actions Arising from the June 2017 IUC meeting

The minutes from the previous meeting were accepted. Actions:

1. AK to consider short Xpress reports and how these can be captured.

Ongoing

2. PK to coordinate user satisfaction feedback reports.

User satisfaction summary paper has been written and will be published on the website after comments from IUC.

3. SW to review weekend cryogenic support options for Muon experiments.

Cryogenic support is constantly reviewed for refinements but is primarily resource limited. The cryo support team have recently hired a new technician, helping towards increased support provision after training.

4. PK to ensure laser capabilities on the muon instruments are publicised on the ISIS website.

Currently there is no Laser Responsible Officer which is required to operate the laser capabilities on the muon instruments. Laser capability will not be advertised until there is sufficient support to operate the facility.

5. Engineering user group to feedback suggestions for the CDT training school.

On campus CDT training at ISIS & Diamond is being reviewed at the moment.

6. Add dietary requirements and food allergy notice to user office webpage.

Ongoing. **ACTION: AK to confirm web page update at next IUC.**

7. ACTION: RM to publish Red Scientific summary prior to next IUC

Report distributed to IUC and update provided by Zoe Bowden.

8. RMG to report on ISIS-2 feasibility options at next IUC.

Options paper distributed to IUC and update provided by Zoe Bowden.

9. PK to Provide more detail on studentship project types to studentship update.

Ongoing. Results of the last set of studentships, together with those of previous rounds, will be on the website shortly.

3. User Group Reports

IUG 1 – Crystallography

- User group meeting was held in December in conjunction with the Physical Crystallography Group of the BCA and the Structural Condensed Matter Physics of the IoP, at a new venue in order to cope with increased numbers. Thanks are given to Helen Playford for her effort in coordinating the user group meeting.
- A high level of user satisfaction was reported from user feedback forms.
- The loss of the 14T magnet accumulates demand which will have an impact on future WISH scheduling.
- There is disappointment within the user group at the decision to not schedule the HRPD upgrade into the long shutdown. ISIS responded that there is no provision in the budget at present for large instrument projects; the HRPD project is costed at circa. £8M.
- The user group is happy with the progress of the GEM upgrade.

IUG2 – Liquid & Amorphous

- A high level of user satisfaction was reported from experiment feedback forms.

- The recent FAP reports 1.5x over subscription indicating that the reduction in proposals reported at June 2017's IUC was not indicative of a reduction within the community.
- The user group is pleased that a new instrument scientist has been employed, currently working on SANDALS.
- The user group noted the importance of the GEM upgrade staying on schedule.
- The user group noted the challenge of rescheduling NIMROD to recoup the loss of beam to TS2.

IUG3 - Large Scale Structures

- Exceptional technical and scientific support was acknowledged; the primary concern raised in user satisfaction forms was beam reliability.
- The recent FAP highlighted that Sans2d & Inter are heavily oversubscribed. The effort to bring CRISP into operation for the current cycle was appreciated.
- The quality of the restaurant provision has improved; particularly welcome have been improvements in the quality of the evening service. However there are persistent issues with the coffee provision and vending machines. Café ZOOM for example is not equipped with enough cups to cover the weekend. There was strong agreement throughout the IUC that the coffee vending provision is not fit for a 24/7 facility and this must be remedied. It is a particular concern that there has been catering representation at previous IUC meetings showing willingness to provide service improvements, but this hasn't been achieved in practice. Issues have also been reported with user cards not working with the vending machines. AK noted that if this occurs in the future users should contact the user office immediately as it is likely a card fault which is easily resolved.

ACTION AK: Feedback problems with coffee vending to catering.

ACTION All User Groups: Notify User Office of catering issues when they occur.

ACTION AK: Purchase cups for Café ZOOM.

ACTION AK: Add notices near vending machines providing instructions regarding faulty user cards.

IUG4 – Excitations

- The user group appreciated the current upgrades to Mari & Maps, alongside the Pace software project which has recently been given the go-ahead.
- It was noted that Russell Ewings has taken over the group leader role from Ross Stewart.

IUG5 - Molecular Spectroscopy

- User feedback is good across the board.
- The improvements in Tosca performance provided by the upgrade are great.
- 'Good Vibrations' newsletter has a subscription of over 600 users and provides an excellent source of news to the community.
- Users have had good experiences using the IBEX computing interface.
- The user community requests an update on the Volumetric Gas Panel Project; it is a much needed development.

ACTION SW: Update the IUC on Volumetric Rig Project.

- An Electron Volt Spectroscopy meeting was held in Rome with 70 participants in attendance; the next user meeting will be at the end of 2018.
- There was a request for a dedicated ISIS lab for cell cultures from a particular user. There is good provision from RCaH, it is thought that the access process maybe driving this request.

ACTION SW: Investigate whether there is an issue with the ISIS, RCaH access procedures.

IUG6 – Muons

- Emma Barney reported on behalf of the IUG6 representatives who were not able to attend.
- Users are very satisfied, reporting support levels to be excellent.
- The recent review of ISIS muons highlighted that the SuperMuSR & MuEx projects should be funded and supported plans to keep RIKEN-RAL operating into the future.
- A Muon training school is planned for next year.
- The lack of laser support for muon instruments was noted, and the growing interest in muon elemental analysis may also mean extra support is needed in this area. PK noted that ISIS is unlikely to be able to recruit a dedicated person to run laser capabilities, and that Adrian Hillier is working on further development of the negative muon experimental facilities.
- The user group noted that there is a need for the muon platform to be extended to store muon SE equipment well. SW noted that this is scheduled in the job list.
- There is support across the user group for the muon cryogenic equipment obsolescence project, although delays are likely caused by the supplier.

IUG7 – Engineering

- Technical & scientific support is reported as being excellent.
- There were reports from some users of data losses related to a bug in the instrument PC during software upgrade.
- Accelerator beam time losses are problematic.
- Issues with radiance furnace availability for experiments were highlighted.

ACTION SW: Look into the radiant furnace availability problems.

- A number of technical issues were noted; Catrin to discuss these with instrument scientists.

ACTION CD: to raise specific technical issues with engineering inst. scis.

4. Update on ISIS & Discussion – Zoe Bowden

- An extra week has been added to the start of the Feb 2018 run cycle, and an additional cycle of TS1 & TS2 operation has been added in April/May 2018, to compensate for recent beam downtime.
- IMAT is now entering the user programme. CHIPIR has its first industrial contract in place with others to follow.
- Zoe gave a summary of the ISIS financial position, and noted the significant recruitment and retention issues in some ISIS areas due to pay restrictions.
- The lack of any funding line in the ISIS budget for large instrument capital projects was noted. The creation of a document outlining possible future large instrument projects was described ('Endeavour'), and community engagement, including community 'champions for each project' was discussed.
- Newton funds, Industrial Strategy Challenge Fund, the Global Challenge Research Fund, the Rosalind Franklin Institute and the proposed International Stress Engineering Centre were all noted.
- The current status of international partnerships with Japan, ESS, India, China and Canada was noted.
- Current instrument development projects (Maps, Mari, Gem, Zoom) were described.
- The 2020/2021 long shutdown for refurbishment of the first target station and replacement of one of the linear accelerator tanks was described.

- The recent facility review conducted by BEIS is now [available on the STFC website](#).
- An external company had recently conducted a review of ISIS operations, and ISIS was considering how to progress their recommendations.
- Input from an external panel for STFC's neutron strategy is now [available on the STFC website](#).
- An options document discussing possibilities for a next-generation facility beyond the current ISIS (ISIS-II) was circulated to the IUC.

5. User Twinning Programme – Philip King

PK described advantages that 'twinning' for experiments between more experienced user groups and less experienced or new users could bring. The IUC reps thought, to some extent, this is informally done as it stands but could see the benefits of a more formal approach developing the user base and provided wider opportunities for collaboration.

Other options were discussed, the value of online tutorials and seminars for teaching software and data analysis techniques, options for changing the way the training schools are delivered could help with the current 4x oversubscription, theory being taught through online resources and the audience for practical sessions being tailored to the technique of interest. It was generally accepted that it was important for the training schools to have a practical hands-on instrument element rather than full theory / simulation.

6. Machine Operations Report – Steve Wakefield

- The reliability report was dominated by a description of the TS2 target beam entry window failure that stopped TS2 operation at the end of 2017; it is hoped that TS2 will be back in operation for the Feb 2018 cycle.
- Deuterium Facility users continue to grow; 38 proposals covering 80 different compounds with 5 associated FAP areas. A new X-Ray lab on the side of TS2 is now operational.

6. Proposals Deadline Discussion - Phillip King

The IUC discussed the proposal to change from a fixed date to a fixed day for the proposal deadline. The IUC agreed the change was a good idea in principle and noted that the 1st week in October would be a problematic choice. ISIS noted that the 3rd week of October would be likely.

7. ISIS Impact Awards – Phillip King

The IUC discussed the proposal to give impact awards to users whose experiments demonstrate economic, scientific or societal impact. The IUC reps strongly supported that idea noting that the 'prize' rather than financial should increase the impact of the research; article on website, presentation with certificate from facility director with a news piece on a website. They felt that this exposure was particularly valuable for REF.

8. AOB & Date of Next Meeting

PK asked for continued feedback from IUC reps on the format of the IUC meetings.

The next IUC meeting will be held at Cosener's House on the 8th of June 2018.