

Commissioning Plan to September 2015

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1 Commissioning Plan

This document outlines the draft operations plan from October 2014 through to September 2015. During this period MICE Step IV installation will handover to MICE Step IV operations through the commissioning phase. MICE Step IV installation is scheduled to continue until the beginning of June 2015, at which time the commissioning of the cooling channel will begin. The ISIS 2015 schedule is shown in Table 1. Commissioning with beam will begin in User Period 2.

1.1 The MICE Operations Manager

MICE has retired the Operations Manager role whilst ISIS has been down. This position will be restarted in mid-January 2015. As specified in the MICE shift policy, each MOM will serve for 4 weeks, with a 3 day overlap period, and the MOM will receive shift credit for every day served. MOM sign up will occur through the MICE shift allocation tool.

1.2 Staff management

As specified in the MICE shift policy, it is the responsibility of individual groups to ensure that their shift responsibilities are met. Shift management will be provided by a online allocation tool managed by P. Kyberd which will permit self-allocation of shifts. The tool has been specified and developed and will go live between CM40 and CM41.

All teams responsible for a part of the experiment such as the beamline, a specific subdetector or online computing are required to provide experts who can be easily contacted at any time.

1.3 Commissioning plan

The commissioning and operations plan can be split into distinct segments:

1.3.1 October 2014 to February 2015

During this period there is no beam and priority in the Hall is held by the installation project. A number of different activities that do not require beam will be carried out :

- **Tracker DAQ and controls commissioning** : Expert only activity that will take place in November.
Personnel required : Tracker, online and DAQ experts

User Period	Start Date	End date	Run length (days)
1	17/3/2015	24/4/2015	33
2	2/6/2015	24/7/2015	54
3	8/9/2015	16/10/2015	38
4	3/11/2015	18/12/2015	45

Table 1: Provisional ISIS run plan for 2015.

- **Test of control room operations** : Expert only activity. This will take place in November and will test that the new controls setup works, and can be recovered easily from a powered-off state. In addition the tests will ensure that the DAQ electronics are functional and that the entire online system is robust.
Personnel required : Online and DAQ experts
- **Mock data run** : All this activity leads to a mock data run in January. This will involve all sub-detectors that are installed at the time. A fake ISIS signal will be used to read out all subsystems to check that they work, and that the data pathway is intact and functional. This will be an expert only exercise, but will require experts for each system to be present to bring up their systems, and check that they are operating as expected. A date of 21st January has been set for this run, with individual system and integration tests performed in the preceding week. The MOM should be present for this test.
Personnel required : Experts for all subdetector systems, online, DAQ and Controls and Monitoring. Offline computing experts required to check that the data can be copied off and archived. The MICE Operations Manager.
- **Activation run** : The previous activation test was not successful due to a number of ISIS issues. In order to run at 4 V.ms beamloss, an activation test is still required. This will be carried out in late February, 2015 to early March, 2015. Although it would be useful to test everything with beam during this period, the installation project has priority so this may be a target-only exercise.
Personnel required : If only the activation test is run, then a target expert and MOM are required.

1.3.2 March 2015 to June 2015

During this period the ISIS beam will be available. The main task, however, remains the construction and installation project. It is possible that special runs could go forward in this period - at night, for example. Such runs might include alignment runs and subdetector calibration runs.

An online beam request form will provide the primary method of informing the operations team that a special run is desired. The operations team, in consultation with the MIPO, will then try to schedule this run, given that the installation must continue on its schedule. Since these are special runs, rather than standard data taking, it will be the responsibility of those requesting the run to provide adequate shift cover.

Personnel required : Shift cover should be met by group requesting the run. Expert support for non-subdetector system will be provided by those on the expert list. Expert support for beamline, online, DAQ and computing will be provided by operations.

1.3.3 June 2015 to August 2015

The time between June 2015 to August 2015 encompasses ISIS User run period 2. This run period has been nominally assigned to cooling channel commissioning. A plan for this has been laid out by Jaroslav Pasternak. The cooling channel experts will nominally be in control of this period. Other runs may also occur during this period so shift and expert cover will be required.

During this period the shift system will be in operation. Shifts will run for either 16 hours a day 5 days a week, or 24 hours a day, 7 days a week depending on available manpower levels and requirements of the channel commissioning team. Shifts may be intermittent, as the commissioning team brings the channel up. Full shift credit will be given in this period, even if the shift has been shortened or cancelled. Shifters will still need to be available at RAL during their assigned shift period. The MOM, in correspondence with the commissioning team, will make the decision to hold, or cancel, shifts. Shift signup for this period will go live in early 2015.

Personnel required : Shifters, either 4 or 6 per day depending on available levels. Expert support for all systems. The MICE Operations Manager.

1.3.4 Step IV Operations

Whilst this document focuses on personnel requirements for the commissioning period, personnel will be required through the running period to June 2016. Shifts will continue on a 24 hour / day, 7 day / week

basis until the nominal end of the Step IV data taking.

1.4 Summary

This document proposes an operations plan through the commissioning period. The Collaboration Board is invited to consider and endorse the commissioning plan and the personnel requirements that it contains.