

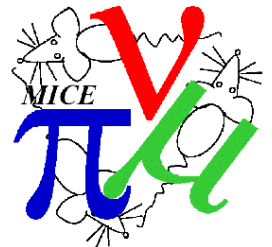


Project Managers Report

Video Conference 172

Roy Preece

11th December 2014





Dashboard

- New milestones to completion of the project have been agreed by the project team.
- This new Dashboard will remain in the same virtual space but replace the current version

Baseline	16/03/25	02/04/25	28/04/25	25/05/25	02/06/25	14/06/25	02/07/25	11/08/25	01/09/25	22/09/25	31/08/26	14/12/26	19/02/27	01/02/27	24/03/27	02/05/27
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Jan-17																
Feb-17																
Mar-17																
Apr-17																
May-17																

Not real data

MICE Milestone Slip Chart



Not real data

• Area for descriptive update for changes to the milestone dates

WBS	Name	Finish Date	Risk_Level	Risk_Impact	Risk_Level	Probability	Delay due to risk
6.2.1.4	North side yoke material delivered	28/04/15	RISEK1(R2)	Contractor late delivery	40	0.25	06/05/15
6.2.1.5	Fit North side yoke plates	14/05/15					24/05/15
6.2.1.6	North side return yoke installation complete	14/05/15	RISEK1(R4)	Installation time extension	10	0.5	29/05/15
6.2.1.7	North side PRV in place by Feb 2015	14/05/15					29/05/15
6.2.1.5.2	Cryostat stands - North side in place	19/05/15					03/06/15
6.2.1.5.3	Move North side Cryostat to hall and place in position	21/05/15					05/06/15
6.2.1.5.4	Reform and connect external waveguides to fit from PRV to Cryostat - After North PRV installation	27/05/15	RISEK1(R3)		20	0.5	21/06/15
6.2.1.5.10.4	Erect truss to support external waveguides - After North PRV installation	29/05/15					23/06/15
6.2.6	Re-metal TD2, KL, LMR	02/06/15					27/06/15
6.2.7	MICE Step IV installation complete	02/06/15					27/06/15
6.2	Spectrometer Solenoid preparation for lattice operation	07/07/15	RISEK1(R2)	Items found to be non operational in field ramping	40	0.8	21/08/15
6.2	Combined magnet operation	11/08/15	RISEK1(R2)	Extended period for training all magnets together - delay steep	40	0.5	15/10/15
6.2	End of STEP IV Operations	02/09/16	RISEK1(R3)	Additional data runs required to complete matrix	5	0.25	16/09/16
6.2.2.1	Disconnect Northside Waveguides	06/06/16	RISEK1(R5)	Expert Personnel not available	5	0.75	23/08/16
6.2.2.1.3	Disconnect Northside Waveguides	06/06/16	RISEK1(R5)	Expert Personnel not available	5	0.75	23/08/16
6.2.2.2	Move South side/tracker Cryostat to R9	08/07/16	RISEK1(R5)	Expert Personnel not available	5	0.25	29/08/16
6.2.3.1	Remove TOP1 & KL & I&R	14/06/16	RISEK1(R5)	Expert Personnel not available	5	0.75	08/09/16
6.2.3.2	Move TOP1, KL & I&R to R9	15/06/16					15/09/16
6.2.4.1	Remove North side PRV	24/05/16	RISEK1(R5)	Lifting equipment missing / damaged	5	0.25	15/09/16
6.2.5.1	Disconnect all magnet cooling lines, instrumentation and power	05/07/16	RISEK1(R4)	Expert Personnel not available	10	0.25	03/10/16
6.2.5.2	Move Upstream Spectrometer Solenoid magnet to R9	05/07/16	RISEK1(R5)	Expert Personnel not available	5	0.25	06/09/16
6.2.5.3	Move Downstream Spectrometer Solenoid magnet to R9	07/07/16	RISEK1(R5)	Expert Personnel not available	5	0.25	07/10/16
6.2.5.4	Move Focus Coil Magnet to R9	11/07/16	RISEK1(R5)	Expert Personnel not available	5	0.25	12/10/16
6.2.5.5	All Channel Magnet moved out of the Hall	11/07/16	RISEK1(R5)	Expert Personnel not available	5	0.25	12/10/16
6.2.4.3	Remove South side PRV	20/07/16	RISEK1(R5)	Lifting equipment missing / damaged	5	0.25	23/10/16
6.2.4.5	Remove Downstream underfloor supports	22/07/16	RISEK1(R5)	Lifting equipment missing / damaged	5	0.25	26/10/16
6.2.4.6	RF Amplifier removed from the floor	22/07/16	RISEK1(R5)	Lifting equipment missing / damaged	5	0.25	26/10/16
6.2.7	Step IV De-Commissioning Complete	22/07/16					26/10/16
6.4.1.1	Remove step IV false floor plates	02/08/16					06/11/16
6.3.1.2.1.1	Install waveguides	11/08/16	RISEK1(R5)	Expert Personnel not available - clash with current equipment	5	0.25	16/11/16
6.3.1.2.2.1	Install all waveguides	11/08/16	RISEK1(R5)	Expert Personnel not available - clash with current equipment	5	0.25	17/11/16
6.4.1.2	Begin drilling and tapping holes in the false floor sufficient for MDIC	26/08/16	RISEK1(R3)	Floor strength found to be insufficient	20	0.2	06/12/16
6.4.1.3	Fit intermediate surface (fit steel plates) for the false floor MDIC position	05/09/16	RISEK1(R5)	Inaccurate drilling	5	0.2	17/12/16
6.4.1.4	Trial RF Cavities base plate installation including survey and marking out	08/09/16					20/12/16
6.4.1.5	Drill and tap threaded holes in the false floor intermediate surface	14/09/16	RISEK1(R5)	Tooling failures	5	0.2	27/12/16
6.4.1.6	Create level surface with washers at bolt locations (survey level)	23/09/16					05/01/17
6.4.1.7	Install base plate - RF Cavities base plates	27/09/16	RISEK1(R3)		20	0.25	14/01/17
6.4.1.8	Install through bolts and survey, level and lighten the complete arrangement	04/10/16					21/01/17
6.4.1.9	Trial AFC #1 base plate installation including survey and marking out	15/10/16					27/01/17
6.4.1.10	Drill and tap threaded holes in the false floor intermediate surface	14/10/16	RISEK1(R5)	Tooling failures	5	0.4	01/02/17
6.4.1.11	Create level surface with washers at bolt locations (survey level)	18/10/16					05/02/17
6.4.1.12	Install base plate - AFC #1	21/10/16	RISEK1(R3)		20	0.25	13/02/17
6.4.1.13	Install through bolts and survey, level and lighten the complete arrangement	26/10/16					18/02/17
6.4.1.14	Trial AFC #2 base plate installation including survey and marking out	01/11/16					24/02/17
6.4.1.2	Drill and tap threaded holes in the false floor intermediate surface	07/11/16	RISEK1(R5)	Tooling failures	5	0.2	03/03/17
6.4.1.16	Create level surface with washers at bolt locations (survey level)	10/11/16					06/03/17
6.4.1.17	Install base plate - AFC #2	15/11/16	RISEK1(R3)		20	0.25	18/03/17
6.4.1.18	Install through bolts and survey, level and lighten the complete arrangement	17/11/16					18/03/17
6.4.1.19	Trial Spectrometer #2 base plate installation including survey and marking out	23/11/16					24/03/17
6.4.1.20	Drill and tap threaded holes in the false floor intermediate surface	29/11/16	RISEK1(R5)	Tooling failures	5	0.2	11/04/17
6.4.1.21	Create level surface with washers at bolt locations (survey level)	09/12/16					07/04/17
6.4.1.22	Install base plate - Spectrometer Solenoid Downstream	09/12/16	RISEK1(R3)		20	0.25	15/04/17
6.4.1.23	Install through bolts and survey, level and lighten the complete arrangement	15/12/16					21/04/17
6.4.1.24	Base Plate work complete	15/12/16					21/04/17
6.5.1.1	Survey Floor & PRV legs	16/12/16					22/04/17
6.5.1.2	Cut trim	19/12/16					25/04/17
6.5.1.3	Install frame legs (inc drilling plates)	22/12/16	RISEK1(R4)	Inaccuracy of the frame / floor setting	10	0.1	29/04/17
6.5.1.4	Survey PRV legs	23/12/16					30/04/17
6.5.1.5	Fit south side yoke plates	01/01/17	RISEK1(R4)	Inaccuracy of the plates / frame setting	10	0.1	12/05/17
6.5.1.6	South side SS return yoke installation complete	03/01/17	RISEK1(R3)	Additional machining or replacement of parts	20	0.3	18/05/17
6.5.2	South PRV Installation complete	03/01/17					18/05/17
6.5.1.1	Install Spectrometer Solenoid #2 rail system	05/01/17					23/05/17
6.5.1.2	Install Spectrometer Solenoid #2 supports to floor	10/01/17					25/05/17
6.5.1.3	Install Spectrometer Solenoid #2 and align	19/01/17	RISEK1(R4)	Expert Personnel not available	10	0.5	08/06/17
6.5.1	MDC Installation complete	27/03/17	RISEK1(R2)	Delay due to currently non-critical items reaching critical path	40	0.5	23/09/17
6.5.1	WPI Tests	27/03/17	RISEK1(R3)	Additional testing time required	10	0.5	09/10/17
6.5.1	Cooling Channel magnet Commissioning	03/05/17	RISEK1(R2)	3 of the 4 magnets have been commissioning together in Step IV	40	0.25	19/11/17
6.5.2.1	Test and condition cavities, with 8 fields, IMW	03/05/17	RISEK1(R2)	Additional testing time required - testing in the MTA	40	0.5	09/12/17
6.5.2.2	RF cavity testing with 8 field complete	03/05/17					09/12/17
6.5.7	Combined magnet and operational tests complete	03/05/17	RISEK1(R2)	Delay due to currently non-critical items reaching critical path	40	0.5	29/12/17
6.8	MDIC Data taking Period	02/03/18					28/10/18

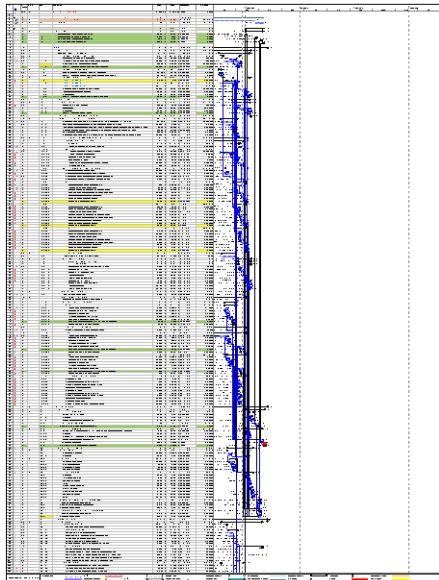
Finish Date Delay due to risk

Milestones

Id	Milestone	Date
Step IV		
1	Compressors ready for cooling channel tests	29th January 2015
2	Rack Room Complete	2nd February 2015
3	South side yoke material delivered	16th March 2015
4	South side return yoke installation complete	1st April 2015
5	North side yoke material delivered	28th April 2015
6	North side return yoke installation complete	14th May 2015
7	MICE Step IV installation complete	2nd June 2015
8	Combined magnet operational tests complete	11th August 2015
9	End of Step IV Data taking	1st June 2016
Cooling demonstration		
10	Partial Return Yoke materials arrive at RAL	10th May 2016
11	RF Cavities arrive at RAL	18th May 2016
12	Step IV De-Commissioning complete	22nd July 2016
13	RF Amplifier delivered	31st August 2016
14	RF Amplifier 1 ready for electrical commissioning	6th October 2016
15	RF Amplifier 2 ready for electrical commissioning	7th November 2016
16	Installation of PRY South starts	14th December 2016
17	Installation of the RF Cavities and Chambers starts	19th January 2017
18	Installation of North PRY complete	1st February 2017
19	Cooling Demonstration construction complete	24th March 2017
20	Cooling Demonstration commissioning complete	2nd May 2017
21	End of data taking in the cooling-demonstration configuration	31st March 2018

- Milestone ID numbers 1 – 8 are currently tracked in the dashboard.
- Milestone ID number 9 – 21 are new and will be tracked to the completion of the project.
- Reporting on the dashboard and in future Review meetings will be against these baseline milestones.
- The milestones have been chosen from currently defined milestones in the schedule but also from the dates that the major components are required.
 - Particularly the RF Cavities and South PRY
 - Not the same date because of preparation time required before installation
- The period for data taking will be subject to grant requests (UK FY16/17 onward), the final milestone, 21, may be revised after discussion.





ID	WBS	Task Name	Finish	Legacy	Summary	Min
11		MICE HALL INSTALLATION SCHEDULE	01 Sep 10			
208	4.1.2.2.1.1	Downstream spectrometer subunit in place on cooling channel?	01 Sep 10			
114	4.1.2.2.1.6	Electrical & controls available for LAFCH MICE Hall testing	11 Mar 13			
24	4.1.2.2.2	Sign Off - Complete - Compressor support structures and cover	24 Jul 14			
222	4.2.5.4.2	Chilled water piping & flowmeters at compressor positions in place?	01 Sep 14			
210	4.2.5.3.3	Final connect and return south side external water/gases?	01 Oct 14			
44	4.1.3.1.4	Cooling Channel Rack DL train compressor services complete	20 Sep 14			
55	4.1.3.2.2.4	Rack available for tests	14 Nov 14			
21	4.1.3.1.4	Sign Off - Complete - Compressor services complete	20 Sep 14			
132	4.1.3.6.3.3	Electrical & controls available for ES&M MICE Hall testing	11 Dec 14			
134	4.1.3.6.3.3	Electrical & controls available for ES&M MICE Hall testing	12 Dec 14			
208	4.2.5.1.4.5	DL train controls rack & software (NVI correct) in place around Nov 2014	18 Dec 14			
74	4.1.3.2.2.8	Compressors - electrically ready	02 Jan 15			
63	4.1.3.2.2.8	APC	02 Jan 15			
73	4.1.3.2.2.5	Compressors - electrically ready	02 Jan 15			
66	4.1.3.2.2.8	Compressors - electrically ready	10 Jan 15			
221	4.2.5.4.1	3 phase main connections at compressor positions in place?	10 Jan 15			
223	4.2.5.4.3	Framework in place for stack of two compressors	20 Jan 15			
54	4.1.3.7	Sign Off - Complete - Compressors ready for operation	20 Jan 15			
54	4.1.3.7	Sign Off - Complete - Rack room 2	02 Feb 15			
9	4.1.1	South side yoke frame steelwork delivered	02 Mar 15			
10	4.1.2	South side yoke steel material delivered	02 Mar 15			
11	4.1.3	North side yoke frame steelwork delivered	02 Mar 15			
12	4.1.4	North side yoke steel material delivered	02 Mar 15			
183	4.2.1.3	South side return yoke installation complete	02 Apr 15			
207	4.2.5.7.1	South side PWT in place by Mid Oct 2014	02 Apr 15			
207	4.2.5.8.1	Upstream spectrometer subunit in place on cooling channel?	02 Apr 15			
208	4.2.5.8	Current 110 transformer in LAF Hall room	02 Apr 15			
245	4.2.5.4.3	Ship back David Alday kit from the US	21 Apr 15			
100	4.2.1	North side return yoke installation complete	11 May 15			
272	4.2.5.6.1	North side PWT in place by Feb 2015	11 May 15			
209	4.2.7	MICE step IV installation complete	27 May 15			
210	4.2.7	RF Supporter Amplifier MICE delivered from DL	28 Jun 15			
310	4.4	Combined marginal operational tests complete - milestone	05 Aug 15			
307	4.1.4	North side yoke material delivered	10 May 15			
304	4.1.3.1	South side yoke frame steelwork delivered	10 May 15			
305	4.1.3.2	South side yoke steel material delivered	10 May 15			
308	4.1.3.3	North side yoke frame steelwork delivered	10 May 15			
321	4.1.2	Carbon DL	18 May 14			
322	4.1.2.1	Carbon delivered to RAL (2 off)	18 May 14			
312	4.6	End of STEP IV Demonstration	02 Jun 15			
301	4.2.5.5	All Channel Magnets moved out of the Hall	02 Jun 15			
345	4.2.6	PRY Material removed from the Hall	22 Jun 15			
303	4.2.7	Step IV De-Commissioning Complete	22 Jun 15			
317	4.1.1.1	Control Rack delivered from DL	31 Aug 14			
210	4.1.1.2	RF System - Amplifier and racks delivered from DL	21 Aug 15			
302	4.1.1.4	RF System #2 Delivered to RAL	31 Aug 15			
474	4.1.2.4	Beam Pipe rack complete	14 Dec 16			
462	4.2.1.7	South side SS return yoke installation complete	02 Jan 17			
463	4.2.2	South PWT installation complete	02 Jan 17			
460	4.2.3.2	North side SS return yoke installation complete	01 Feb 17			
461	4.2.4	North PWT installation complete	01 Feb 17			
524	4.4	LLAF Final complete	24 Feb 17			
527	4.2.2	RFRF testing without B-F final complete	24 Mar 17			
535	4.6	MICE installation complete	24 Mar 17			
540	4.6.2.2	RF cavity testing with B-F final complete	02 May 17			
541	4.7	Combined marginal and operational tests complete	02 May 17			

- Link from the MIPO page on the MICE Mine
- <http://micewww.pp.rl.ac.uk/projects/mipo-doc/wiki>
- Baseline schedule, Milestone waterfall chart, UK top level risks and the Assumptions document.
- The dashboard is in the same place as it's always been

October 27, 2014 Issue 1 - Draft 3, for CB MIP0 2014(04)
28Oct14

MICE Project Assumptions Document

1 Scope

This document defines the project-level assumptions that have been made in the development of the plans for the construction, commissioning, operation and analysis of MICE in the Step IV configuration and in the final configuration in which ionization cooling will be demonstrated. Whereas there may be verbal agreements in place between individual institutes or funded countries, the Assumptions Document has been prepared by the MICE International Project Office (MIPO) and the MICE Experiment Management Office (MEMO) in consultation with the MICE Executive Board (EB). This document (Issue 1, draft 3) is presented to the Collaboration Board (CB) at its meeting on the 28th October 2014 to solicit comments from the Board and to obtain its endorsement of the Assumptions Document. Upon endorsement by the CB the assumptions will be taken to have been agreed by the MICE collaboration.

This, the first version of the Assumptions Document, is centred around STEP IV. It will be finalised to include comments from the CB. Extensions to, and revisions of, the document will be considered periodically and the updated document will be re-issued once it has been endorsed by the CB.

2 Funding, institutes and international contributions

1. The STFC will continue to fund the MICE-UK construction and exploitation projects on a flat-cash basis to the completion of the demonstration of ionization cooling following the review of a proposal for continuation of the support to be submitted in UK financial year 2015/16.
2. The STFC will continue to provide grants to the Universities associated with the MICE-UK project at a level similar to that which is currently granted thereby enabling University personnel to participate in the advancement and completion of the project.
3. The DOE will fund the MICE-US project to the completion of the construction, commissioning and operation of Step IV and the ionization-cooling demonstration.
4. The MICE-US project team will deliver two RF cavities and the associated vacuum vessels, couplers and vacuum equipment as well as the US contributions to the Partial Return Yokes (PRYs) required at Step IV and for the cooling demonstration. In addition, the US will deliver two lithium-hydride absorber discs in accordance with experimental requirements to shield the trackers from fast-neutron-induced radiation. MICE-US will take an active part in the commissioning and operation of the experiment at Step IV and in the demonstration of ionization cooling as well as playing an active part in the exploitation of the data from the experiment.
5. At both Step IV and in the cooling demonstration, MICE-UK will deliver, to the agreed schedule, the structures below floor level to support the PRY framework and shielding plates. All funding for these support structures will be borne by the MICE-UK project.
6. MICE-UK will provide the design, manufacturing and construction effort and the funding for the lithium-hydride absorber support structures and vessels.
7. At both Step IV and in the cooling demonstration, MICE-US will deliver, to the agreed schedule, the PRY and the necessary support structures above floor level. All funding for these items will be borne by the MICE-US project.

ID	Risk Description	Potential impact of project	Risk Rating				Current/Outlook	End of obligation (start/finish)	Early response (start/finish)
			1	2	3	4			
0001	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0002	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0003	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0004	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0005	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0006	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0007	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0008	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0009	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project
0010	Delivery of a partial return yoke to the MICE-UK project	ability to complete the cooling	1	1	1	1	1	1	End of project

Project Risk



- On a monthly basis a progress and forecast report is passed to the STFC Project Risk Committee.
- High level view of the projects across the STFC
- For a long time the project has been Red on the Risk Register.
 - Cost and Schedule
- Following the recent MPB and RLSR confidence in the project is growing
- The latest PRC meeting, after the recent reviews, has down graded the project risk from Red to Amber.
- This is a huge endorsement to the project following the recent work in re-scoping the project to completion and the PRC having confidence in our attaining the cost and schedule profile laid out.



Hall work



- We are moving into a very intensive 6 months with a lot of work to be carried out
 - Electrical services
 - Magnet instrumentation
 - Solenoid Cold heads
 - Magnet cooling services
 - Support structures for services routing
 - Partial Return Yoke frame setup
 - Partial Return Yoke main plates
 - Moving the magnets
 - Hydrogen system
 - Detector system upgrades
 -
- With all these groups wanting time in the hall it will get very busy, very quickly.
- Safety of personnel, and equipment, during these times will be paramount
- A detailed plan is in production to allow all groups
 - Time to carry out their work
 - Space to carry out their work
 - Expert and technical staff on hand to enable the group to complete, eg Crane operation
- The plan will be posted in the hall, and web, for the coming month
- Adhoc working will be given a low priority – A plan of work should be sent to John, Andy or me at least 1 month before you need to carry out the work.
 - We understand there will be times when access is required on very short notice
 - These access requests will be addressed as they arise
 - Project tourism will need to be planned – no wandering around

