

DC Report

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MICE VC 03/08/2017



Timescale

- ▶ ISIS user run starts on Tuesday 19th September (6 weeks away)
- ▶ The run ends on the 27th October
- ▶ Planning to operate the experiment 24/7
- ▶ Three shifts a day, 00:00-08:00, 08:00-16:00, 16:00-24:00
- ▶ Three MOMs have (been) volunteered
- ▶ Paulo 12th Sept – 27th Sept
- ▶ Durga 27th Sept – 12th Oct
- ▶ Melissa 12th Oct – 27th Oct

Prerequisite Tasks

- ▶ Target
- ▶ Conventional Beamline
- ▶ Water and Hall infrastructure
- ▶ Cooling channel
- ▶ Tracker
- ▶ LH2 system
- ▶ Controls and Monitoring
- ▶ DAQ and Computing
- ▶ Training and People

Target

- ▶ The target currently installed has performed 5 million actuations
- ▶ Analysis shows no signs of deterioration or wear
- ▶ Estimated lifetime of a target is estimated to be between 5-10 million
- ▶ Decision made not to replace current target
- ▶ Have a fully tested hot swap spare ready for emergencies
- ▶ Outline agreement with synchrotron crew to allow rapid replacement if needed

Conventional beamline

- ▶ Issue with beam-stop droop resolved
- ▶ Beam-stop frame fixed
- ▶ DS is ok
- ▶ Magnets are ok
- ▶ Diffuser needs to be tested when SSU/SSD are ramped
- ▶ Will need to do a position survey prior to hall closure

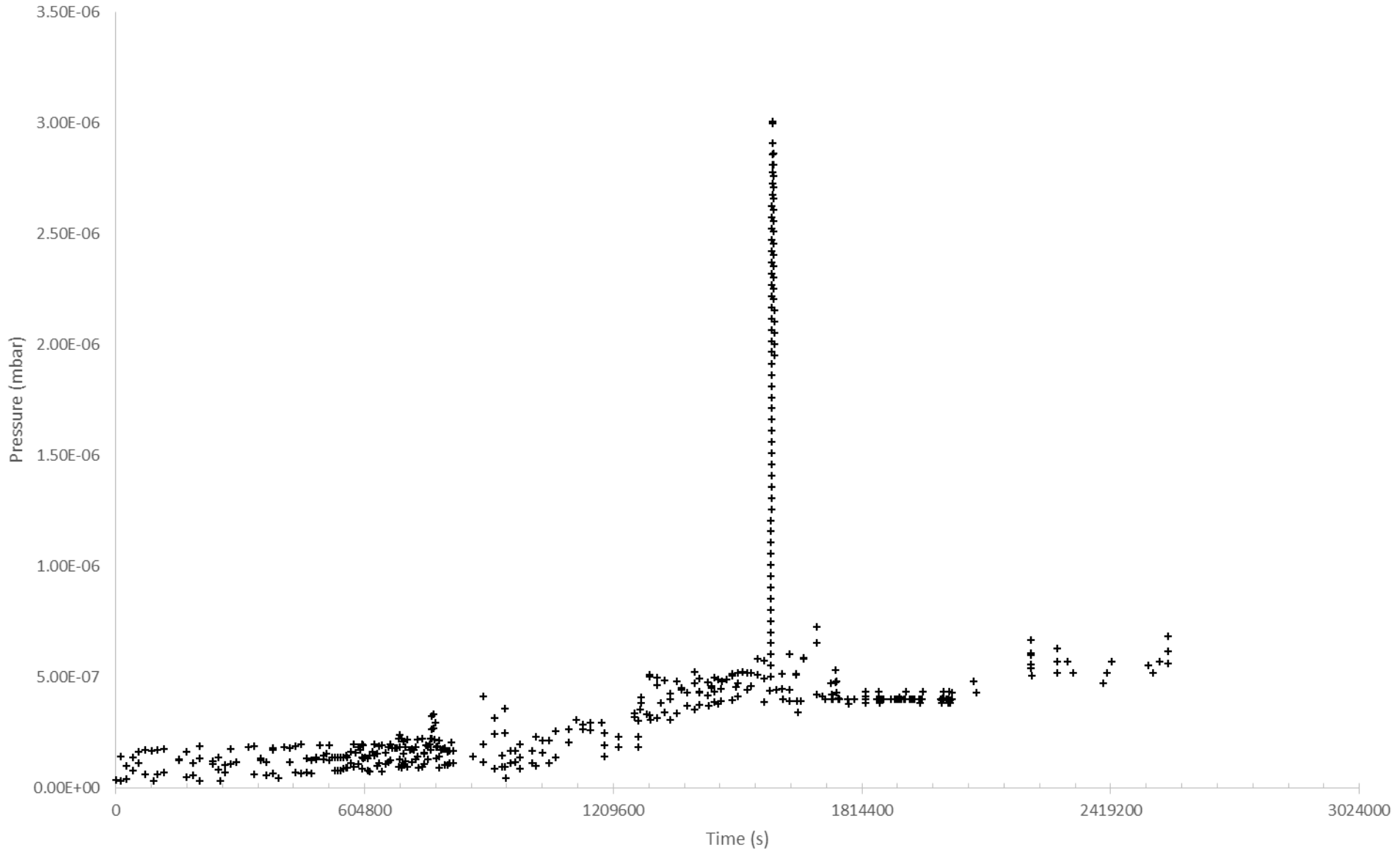
Water and Hall Infrastructure

- ▶ We are still missing John Govans
- ▶ Have Paul Masterson from ISIS to help with water issues
- ▶ General hall issues need watching
- ▶ AC units have just been serviced and should be fine
- ▶ Hydrogen panel area fencing/mesh to be installed
- ▶ Crowcon ODH sensors tested and calibrated

Cooling Channel

- ▶ Plan to begin recommissioning SSU/SSD/FCD next week
- ▶ Alan arrives midweek and Sandor at end of week
- ▶ First step is for AB and SF to evaluate state of SSD-M2
- ▶ Then check the QPS system
- ▶ Ramp SSU and SSD independently to full current
- ▶ Then ramp SSU/SSD/FC together
- ▶ Hall will need to be in controlled access for ramp tests
- ▶ SSD Insulating Vacuum is reading a little high ($6.4E-7$) so watching this closely

SSD Insulating Vacuum Pressure July 2017



Tracker

- ▶ All 4 tracker cryostats are currently warm
- ▶ Alan will start cooling and checking/sealing these as soon as he arrives
- ▶ When above work is complete the trackers will need recalibrating
- ▶ We no longer have Ed Overton for this work
- ▶ David Adey will arrive early September to do the above recalibration(s)

Liquid Hydrogen System

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- ▶ Commissioning work with Neon going well
- ▶ Achieved stable state when “Full”
- ▶ Controls and emergency stop system tested
- ▶ Nice new epics monitoring GUI
- ▶ Some snagging work to complete in roof before final inspection in 2 weeks time
- ▶ Pipework for vent/quench line to be completed

Controls and Monitoring

- ▶ Still far too many spurious alarms in alarm handler
- ▶ Have a 6 page list of “ignored” alarms!
- ▶ Major effort underway to fix this ready for data taking
- ▶ Need to check and verify that all critical parameters are properly recorded in the archiver
- ▶ Otherwise everything is working well

DAQ and Computing

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- ▶ Durga not back until early September
- ▶ Will need to be careful that we have enough time to fix any DAQ issues that arise
- ▶ No major problems with general computing
- ▶ Some over-temperature alarms in showing up in ALH

Training and People

- ▶ Could be our last data taking period!
- ▶ It is a longish user run – 6 weeks
- ▶ Need to make sure we have enough shifters to cover
- ▶ See Steve and Henry for any training (BLOCs needed)

Conclusion

- ▶ Lots of work to do to prepare for what may be the final run of MICE
- ▶ Cannot afford any significant slippage
- ▶ Looking forward to routine LH2 data taking by end of September.....