

Monthly L2 Status Report -

June 28, 2013

WBS: 05 01: MICE RF Fabrication & Testing

Presenter: Derun Li

Milestone Status (Progress)

- 201 MHz cavity
 - Support and preparation of the first MICE cavity for testing at MTA using the single cavity vessel and accessory components:
 - RF coupler MP simulations with MICE B field map (reported at MAP collaboration meeting last week)
 - Tuners and actuators complete and delivered to Fermilab
 - Continue MP simulation studies, in collaboration with SLAC

Resource Conflicts, Plan Changes and Issues

- EP of the remaining 9 MICE cavities at LBNL
- Measurements and tuning of all MICE RF cavities

Late Items

Summary of Previous Month

- MP simulation studies of the 201 MHz cavity for MICE
- Good progress of the first cryostat-vessel fabrication for the MICE CC magnet started at LBNL
- Place PO of 24 tuner arms for the 1st RFCC module (UMiss)

Quarterly Plans

- Continue MP simulation studies of the MICE cavity and coupler with external magnetic fields
- Complete fabrication of two 201 MHz RF couplers for the first MICE cavity
- Support the first MICE cavity installation and testing at MTA, Fermilab
- EP of the remaining 9 MICE cavities at LBNL

Upcoming Work (Next Month)

- Support of the 201 MHz installation at MTA, Fermilab
- Continue MP studies of 201-MHz cavities with B field
- Oversight the fabrication of two RF coupler fabrication at LBNL machine (once funding is in place)
- Update/finalize the design of MICE CC cryostat and accessory components

Spectrometer Solenoid Update

June 28, 2013

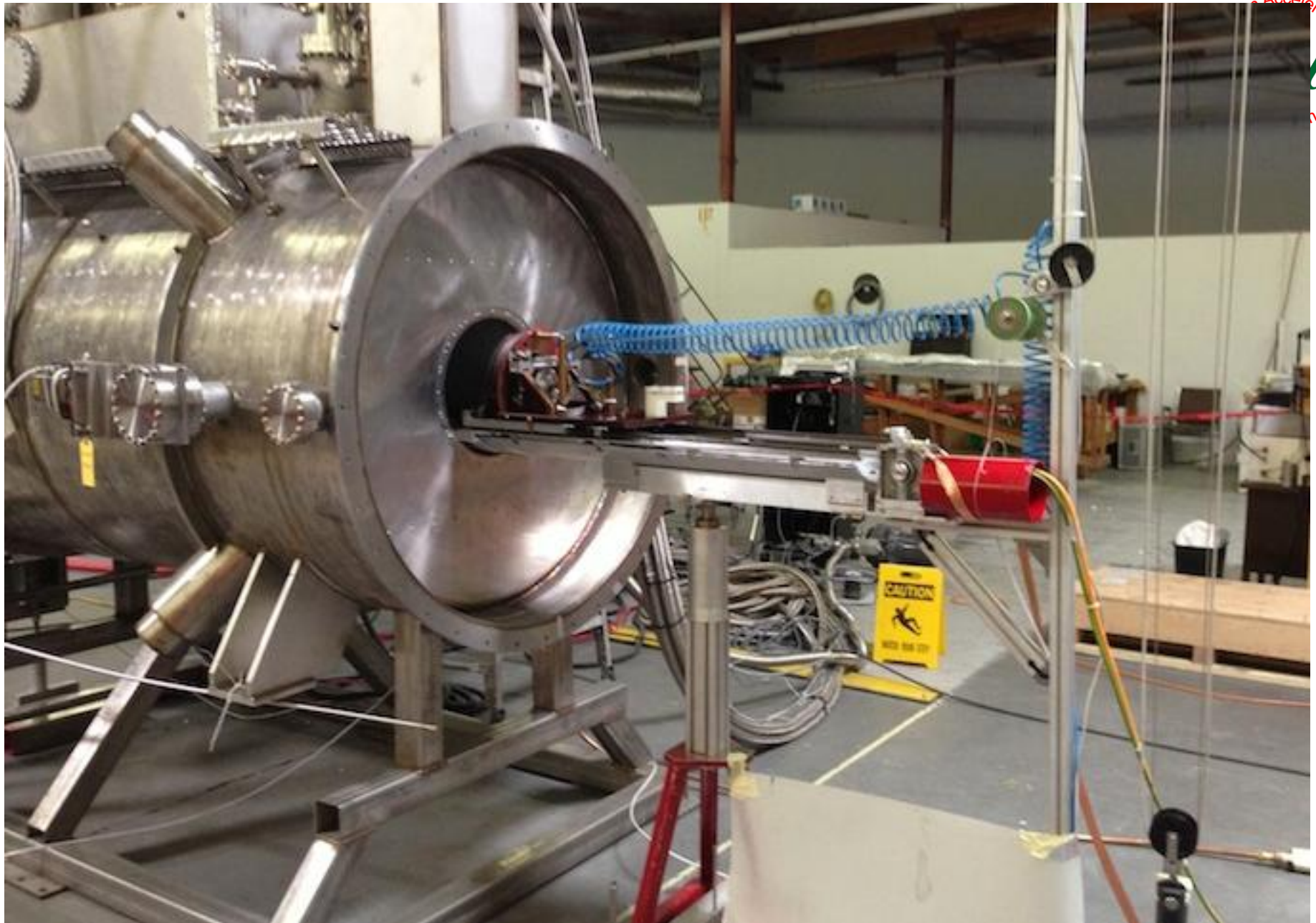
Steve Virostek

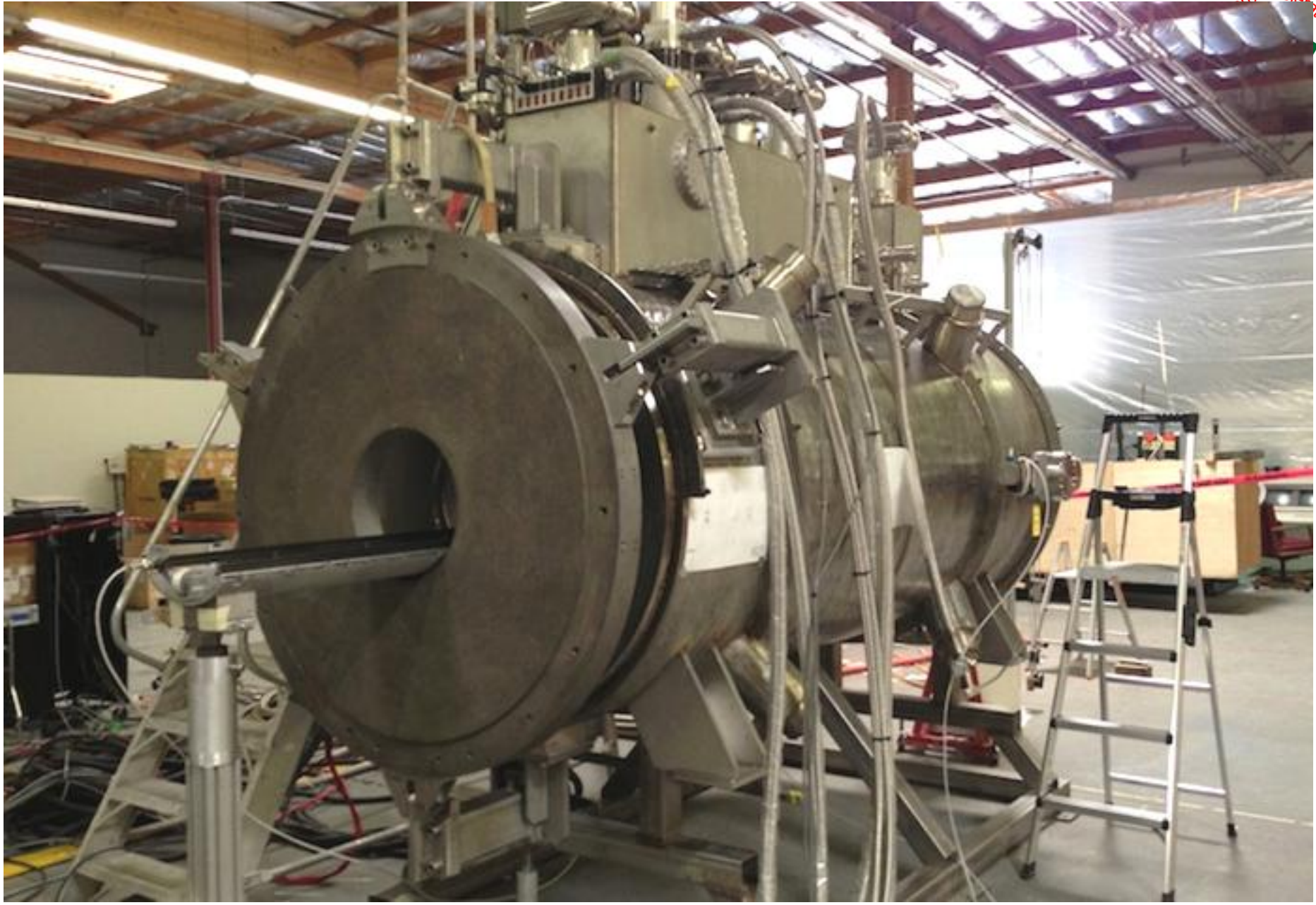
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Magnet Field Mapping



- CERN mapping equipment arrived at the end of May
- Preliminary runs carried out without iron shield
- Shield installed on magnet w/o removing mapper
- Minimal effect on magnet training by addition of iron shield (quenched at $\sim 98\%$ of solenoid mode full current on first try, reached full current on 2nd run)
- Full 3D mapping runs completed w/shield and at both flip and solenoid modes (full current)
- Additional mapping and calibration runs have been carried out
- Final mapping runs to be completed last week





2nd Magnet Progress



- All vacuum vessel assembly and welding has been completed
- Cryocooler tower is complete and the coolers have been installed
- Leak check of the vacuum vessel completed 2 weeks ago (no leaks after one weld joint repair)
- Upcoming tasks: final weld of fill and vent towers, installation/welding of iron shield mount pads and support feet, vacuum vessel pump/purge

Schedule

- Mapping of first magnet to be complete this week, followed by warm up
- Second unit expected to be in place and ready for cool down week of July 8th
- After vacuum pumpout of 2nd magnet, cooldown and training to start in July
- Training and mapping w/shield to follow
- Shipping of commissioned magnets to RAL still tentatively planned for July and Sept.

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WBS: 1.05.03 MICE Magnetic Shielding

Presenter: Holger Witte

Milestone Status (Progress)

- Step IV Conceptual Design Studies: finished
- Step IV Magnetic Shielding Detailed Engineering: ongoing

Resource Conflicts, Plan Changes and Issues

- none

Late Items

- none

Summary of Previous Month

- MICE CM in June
- Tolerances of interface Virostek disc with extension
- Forces on coils/magnetic shield updated
- Field cryocooler heads evaluated with/without PRY
- Material properties: risks and mitigation strategy
- PRY 'Light' investigated
- Engineering (Steve Plate): Detailed work on parts, eliminating interferences

Quarterly Plans

- Continue work on detailed engineering
- Costing and schedule

Upcoming Work (Next Month)

- RAL visit Steve Plate to work on interferences
- Costing
- Schedule