PREX II Experiment Readiness Review

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Charge Items 1, 9 & 10 – Equipment Installation Plan

4 Major Components

- Preliminaries
- De-Installation of Previous Experiment Equipment
- PREX Equipment Installation
- Final Preparations

Preliminaries

- Post beam surveys and checklist
- Move PREX equipment to hall
- Bleed up spectrometer and beamline components
- Move both HRS into position

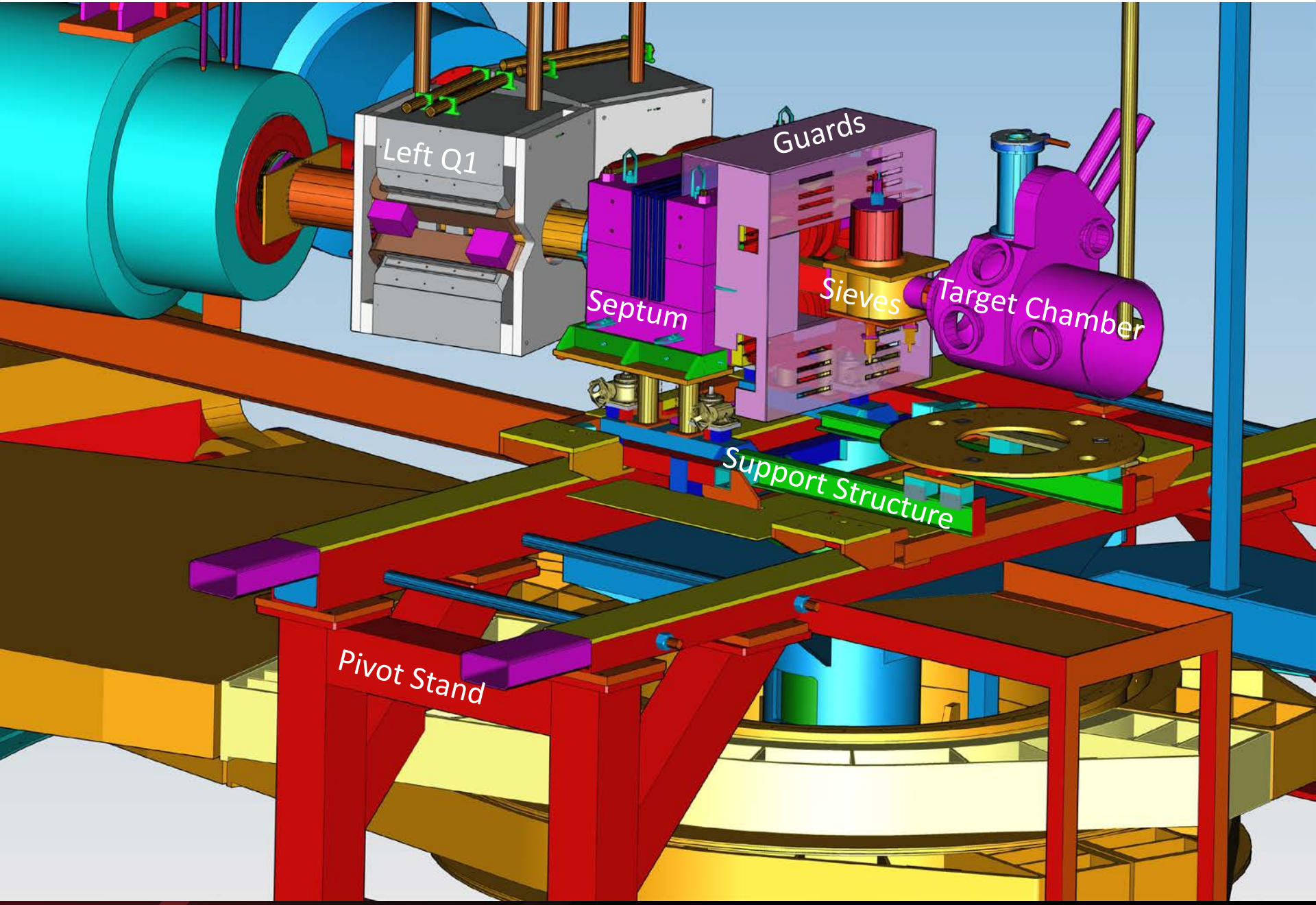
De-Installation???

As of today, there is no confirmation on which experiment PREX will follow. From my previously gained knowledge and research I have "*ESTIMATED*" that an "*AVERAGE*" de-installation will add approximately 2 week to PREX installation time.

Installation of PREX

- ✓ Install pivot stand and support structures
- ✓ Install target chamber, target and sieve box
- ✓ Install septum magnet and associated equipment
- ✓ Detector package change out
- ✓ Install Moller Polarimeter
- ✓ Install radiation shielding

**** Please Note: We are operating under the assumption that Hall A will remain cold during the installation…*


Left Q1
Guards
Septum
Sieves
Target Chamber
Support Structure
Pivot Stand

Final Preparations

Final Preparations – These are routine activities that we would typically perform at the end of most installation period.

Examples: cryogenic cooldown & cleanup, vacuum system pump down & leak check, power supply testing, etc.…

Unknowns (?)

There are several unknowns that have the potential to affect the installation of this experiment…

1. Predecessor experiment
   - Depending on what experiment PREX follows, I have estimated that de-installation will take anywhere from 1 – 3 weeks to remove. For PREX scheduling purposes I've used a 2 weeks (average) as an estimate.
2. Type, amount and placement of radiation shielding
   - Type - Will help me to determine what kind of PPE is necessary for installation.
   - Amount – This will help me to determine man-hours needed.
   - Placement – Will help me to determine scheduling (i.e. can shielding installation be done in parallel with other items or does it need to be done in series?)
     ***Please note: This unknown has the potential to have the biggest impact on schedule performance…
3. Mount/support for the target chamber
   - PREX target chamber can not be supported by current target chamber support structure. A new support structure will need to be designed and installed.

Conclusion…

- Installation schedule is estimated to take ~13 weeks
- There are several unknowns that need to be discussed
- The installation schedule has the potential to change
- We will continue to looks for ways to mitigate “schedule creep”. (ex. Assemble and test equipment beforehand as well as solicit manpower help from SSG for power supply testing, detector package change out and shielding installation)

Any Questions?