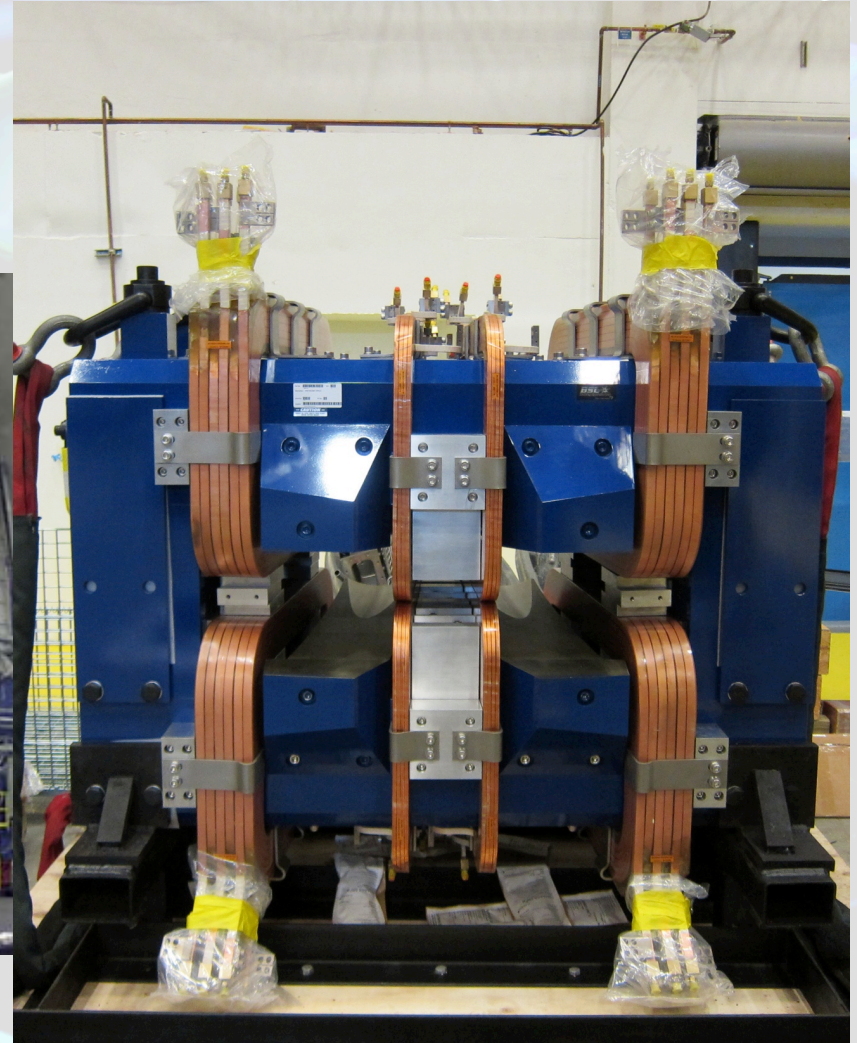
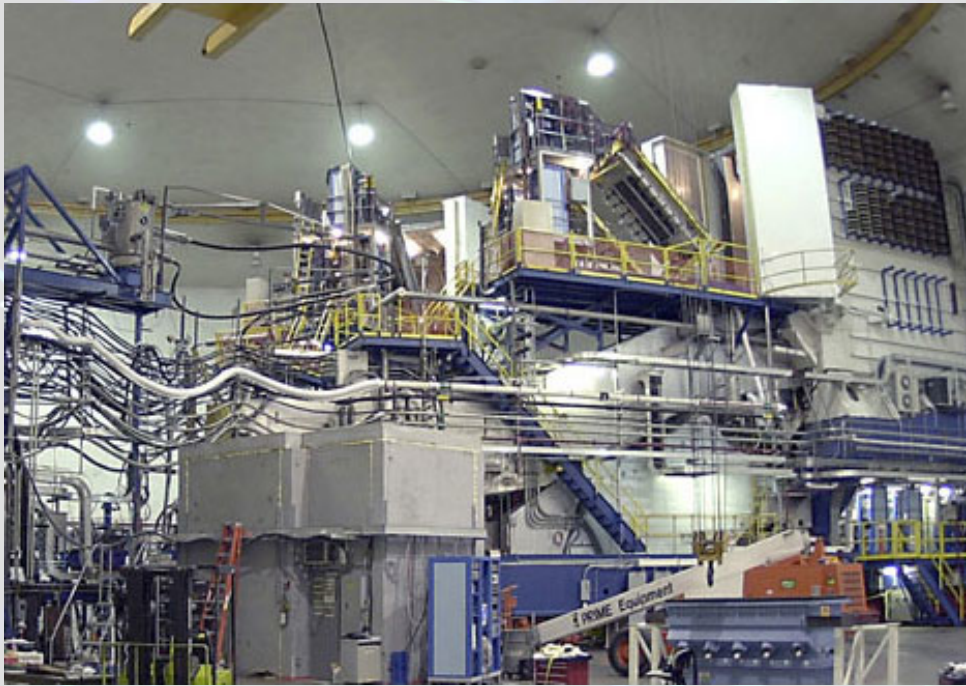


Hall A Update

Thia Keppel



Scheduling

MEMORANDUM

Date: March 1, 2015
To: Distribution
From: Rolf Ent and Arne Freyberger for the Nuclear Physics Experiment Scheduling Committee
Subject: Accelerator Schedule through September 30, 2016

A/B	NOTE 1	5/?/-/5.5	11001 days - 2 x 1700 days
A/B	NOTE 1	5/?/-/5.5	
A/B	NOTE 1	5/?/-/5.5	
A/B	NOTE 1	5/?/-/5.5	
A/B	NOTE 1	5/?/-/5.5	
D/A	NOTE 1	5/?/-/5.5	<p style="text-align: center;">Note (9) APEx could replace DVCS/GMp if experiment goals reached in calendar year 2015</p>
D/A	NOTE 1	5/?/-/5.5	
D/A	NOTE 1	5/?/-/5.5	
D/A	NOTE 1	5/?/-/5.5	
D/A	NOTE 1	5/?/-/5.5	
D/A	NOTE 1	5/?/-/5.5	
B/D	NOTE 1	5/?/-/5.5	
B/D	NOTE 1	5/?/-/5.5	
B/D	NOTE 1	5/?/-/5.5	<p style="text-align: center;">Note (10) HPS or PRad if</p>

February 2015

Hall A Projected Experiment Schedule, updated 2/2015

- available on Hall A wiki

	Spring	Fall	Spring	Fall	Spring	Fall
CY 2015	DVCS – I/ GMp	DVCS – I/ GMp				
CY 2016			DVCS – I/ GMp [APEX]	$^3\text{H}/^3\text{He}$ group (1+1+2)		
CY 2017					$^3\text{H}/^3\text{He}$ group (1+1+2)	<i>APEX</i> <i>PREX12</i> <i>CREX</i> <i>A₁ⁿ</i> <i>Ar(e,e'p)</i> <i>DVCS-II</i>

CY 2018 **SBS** start?

- Experiments listed in italics represent potential schedule options, in no order
- Red indicates PAC41 High Impact Experiments including SBS G_e^p
- Purple indicates new experiments approved by PAC42
- Blue indicates potential back-up experiment

Hall A Projected Experiment Schedule, updated 2/2015
 - available on Hall A wiki

	Spring	Fall	Spring	Fall	Spring	Fall
CY 2015	DVCS - I/ GMp	DVCS - I/ GMp				
CY 2016	Bad run		DVCS - I/ GMp [APEX]	$^3\text{H}/^3\text{He}$ group (1+1+2)		
CY 2017					$^3\text{H}/^3\text{He}$ group (1+1+2)	<i>APEX</i> <i>PREX12</i> <i>CREX</i> <i>A₁ⁿ</i> <i>Ar(e,e'p)</i> <i>DVCS-II</i>

CY 2018 **SBS** start?

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Hall A Projected Experiment Schedule, updated 2/2015
 - available on Hall A wiki

	Spring	Fall	Spring	Fall	Spring	Fall
CY 2015	DVCS - I/ GMp	DVCS - I/ GMp				
CY 2016		Short run	DVCS - I/ GMp [APEX]	$^3\text{H}/^3\text{He}$ group (1+1+2)		
CY 2017				$^3\text{H}/^3\text{He}$ group (1+1+2)	APEX PREX12 CREX A_1^n Ar(e,e'p) DVCS-II	More likely first opportunity

CY 2018 **SBS** start?

- Experiments listed in italics represent potential schedule options, in no order
- Red indicates PAC41 High Impact Experiments including SBS G_e^p
- Purple indicates new experiments approved by PAC42
- Blue indicates potential back-up experiment



APEX E&D Items Remaining

- Corrector magnet(s)
- Vacuum extension box
- Support for extension box
- Support for magnet
- Target
 - motion
 - cooling
 - Shielding
- Power
 - supply
 - Magnet
- Walter
 - supply
 - magnet
- Sieve holders and fiducialization
- Shielded beam pipe?



APEX Installation

Current

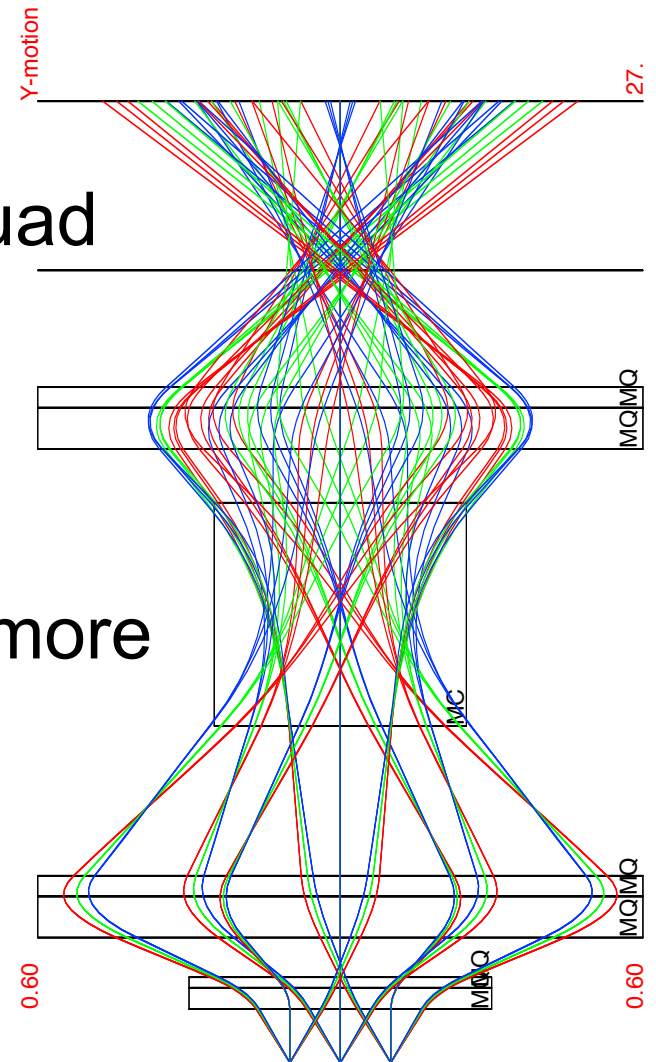
- New septum magnet being fitted with water manifolds, buss bars and power guards
 - must still be tested (only to 200 Amps).
- Design/fabrication work ongoing (next slide)

Installation

- Post run surveys
- Remove target (Rad Con hold)
- Remove DVCS arm
 - Collaboration – crystal removal and de-cabling
 - Manpower intensive
- Disassemble and remove DVCS beam line, collimators from pivot
- Install target, target chamber, integrate with services
- Install APEX beamline and magnet
- Installation of APEX magnet challenging due to the limited accessibility, plus it must be partially disassembled to install the vacuum transitions
- Electronics equipment position and shielding questions open

Total installation time is approximately 14 weeks.

- HRS-Q1 right in repair
- Old “Short Orbit Spectrometer” quad being used as replacement
- Shorter, resistive, different
- New leads on order
- May be complete by Fall, Spring more likely
- May or may not work
- Can APEX use the SOS quad?



Formal Path

- Physics Division Readiness Process
 - Suggest aiming for shielding review Summer 2015
 - Will need documentation for any new/substantially redesigned equipment
 - Precursors to Request for Scheduling (look for e-mails from Rolf roughly every 6 months starting ~May)
 - Readiness Review for installation
 - Change in physics liaison



Summary

- Small window of opportunity for running Spring 2015
- Preparations underway
- A lot to do!
- Installation non-trivial
- Preparations are of benefit to APEX even if the run is later in the schedule