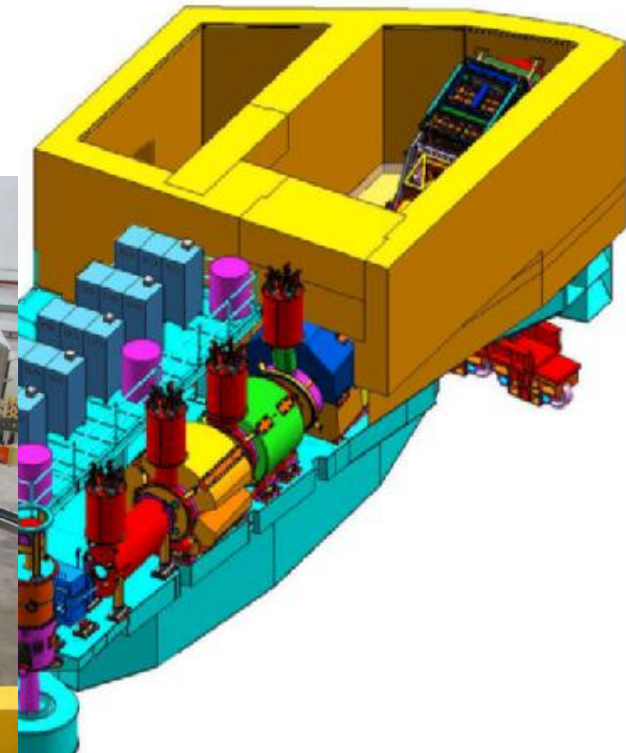
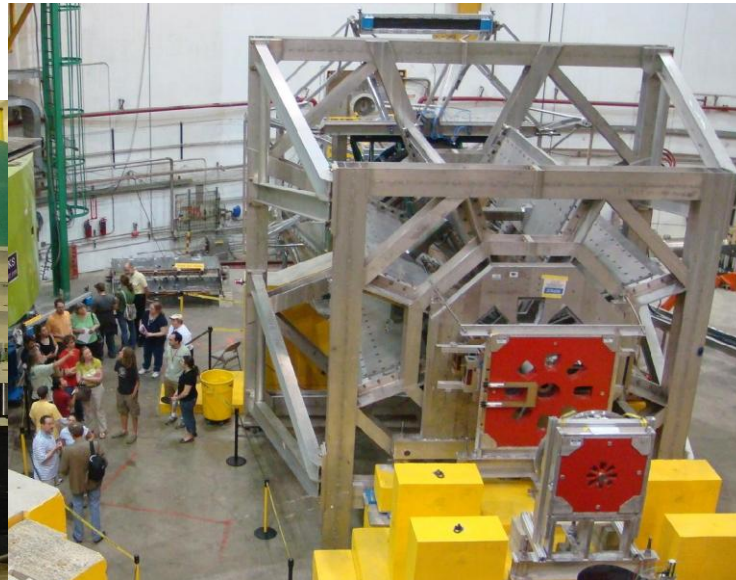
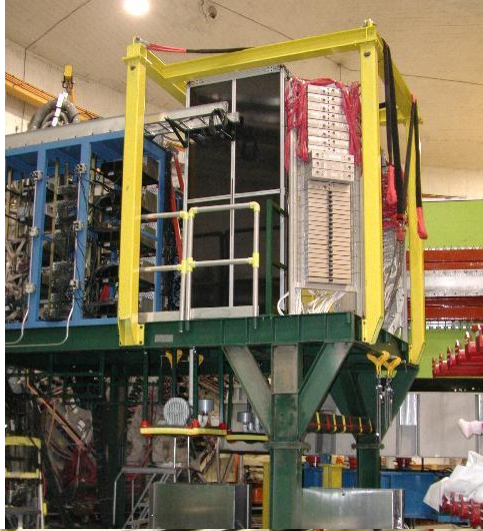


Hall C Users Meeting

January 13-14, 2012



Publications in last year

E00-108	Semi-Inclusive Charged-Pion Electroproduction off Protons and Deuterons: Cross Sections, Ratios and Access to the Quark-Parton Model at Low Energies	PRC 85, 015202
G0	The G0 Experiment: Apparatus for Parity-Violating...	NIIM A646, 59
E01-107	Nuclear transparency and effective kaon -nucleon cross section from the $A(e, e'K^+)$ reaction	PRC 84, 015210
G0	Transverse Beam Spin Asymmetries at Backward Angles in Elastic Electron-Proton and Quasi-elastic Electron-Deuteron Scattering	PRL 107, 022501
E04-019	Search for effects beyond the Born approximation in polarization transfer observables in $e\uparrow p$ elastic scattering	PRL 106, 132501
E02-019	New measurements of high-momentum nucleons and short-range structures in nuclei	Arxiv:1107.3583 (PRL)
E04-108	Polarization components in π^0 photoproduction at photon energies up to 5.6 GeV	Arxiv: 1109.4650
G0	Measurement of the parity-violating asymmetry in inclusive electroproduction of π^- near the Δ^0 resonance	Arxiv: 1112.1720

Total Publications: 93 PRL: 36 NIM: 11
85 "Hall C" PhDs to date, 6 in last year
(Albayrak, Capuano, Leckey, Maxwell, Meziane, Wang)

6 GeV Publication Status - I

Exp #	Topic	Done	Papers	Extra Papers	Notes
E94-110	(e,e') R	10/1999	Updated Draft	P Elastic, spin offs	
E91-016	(e,e'K)	12/1999	PRL 12/2004 PRC 11/2007	Omega production	
E89-009	HNSS	5/2000	PRL 6/2003 PRC 4/2006		
E99-118	Nuclear R	7/2000		Proton and Deuteron	Needs radiative corrections work
E93-038	GeN (Madey)	4/2001	PRL 9/2003 PRC 2/2006	GeP/GmP	
E93-026B	GeN Poltar	12/2001	PRL 1/2004		
E01-006	RSS	3/2002	PRL 3/2007 PRL 9/2010		Possible Neutron SF
E00-002	F2N low Q2	5/2003	Draft		
E01-002	Baryon	6/2003	PRC 6/2009 PRC 9/2009		

6 GeV Publication Status - II

Exp #	Topic	Done	Papers	Extra Papers	Notes
E00-116	Intermediate Q2 duality	7/2003	PRC 9/2009	Neutron Duality spin off	
E01-004	Fpi – II	8/2003	PRL 10/2006 PRCx2 10/2008		
E00-108	Meson Duality	8/2003	PRL 1/2007 PRB 7/2008	PRC 1/12	
E00-006	G0 Forward	5/2004	PRL 8/2005 PRL 8/2007	Target NIM Global Analysis	
E02-019	X>1	11/2004	PRL 11/2010 PRL X/2012		
E03-103	EMC Effect	11/2004	PRL 11/2009	Drafting Heavy Target	
E93-008	J/Psi	12/2004	PRL 1/2009		
E01-107	Pi Transparency	12/2004	PRL 9/2007 PRC 5/2010	Scaling study K Transp 7/11	
E01-011	HKS	11/2005			
E02-017	Photofission	12/2005	P of Atom 10/2010		



6 GeV Publication Status - III

Exp #	Topic	Done	Papers	Extra Papers	Notes
E02-017	Photofission	12/2005	P of Atom 10/2010		
	G0 Backward	3/2007	PRL 1/2010	NIM F+B 8/11 Trans Asy 7/11	Pi Asy Draft
E04-001	F2/R Nuclei	7/2007			Drafting
E05-017	2gamma	7/2007			
E06-009	F2/R Deut.	7/2007			Drafting
E04-019	GeP-2gamma	1/2008	PRL 3/11		
E07-002	RCS	1/2008			Student assigned
E04-108	GeP-III	6/2008	PRL 6/2010	Pi0 Prod Recoil Pol - Submitted	
E07-003	SANE	3/2009			
E05-115	HES/HKS	11/2009			
E08-016	Qweak				

SOS Removal

- SOS must be removed for 12 GeV
- Detectors, electronics, power, cables, AC, hydraulic plumbing removed. Cables to be reused for SHMS.
- Removed lead lined walls of electronics hut. doors, roof, lead lining.
- Some detector hut lead panels removed.
- “Plug” above dipole removed.



HKS+HES in Experiment Staging Building

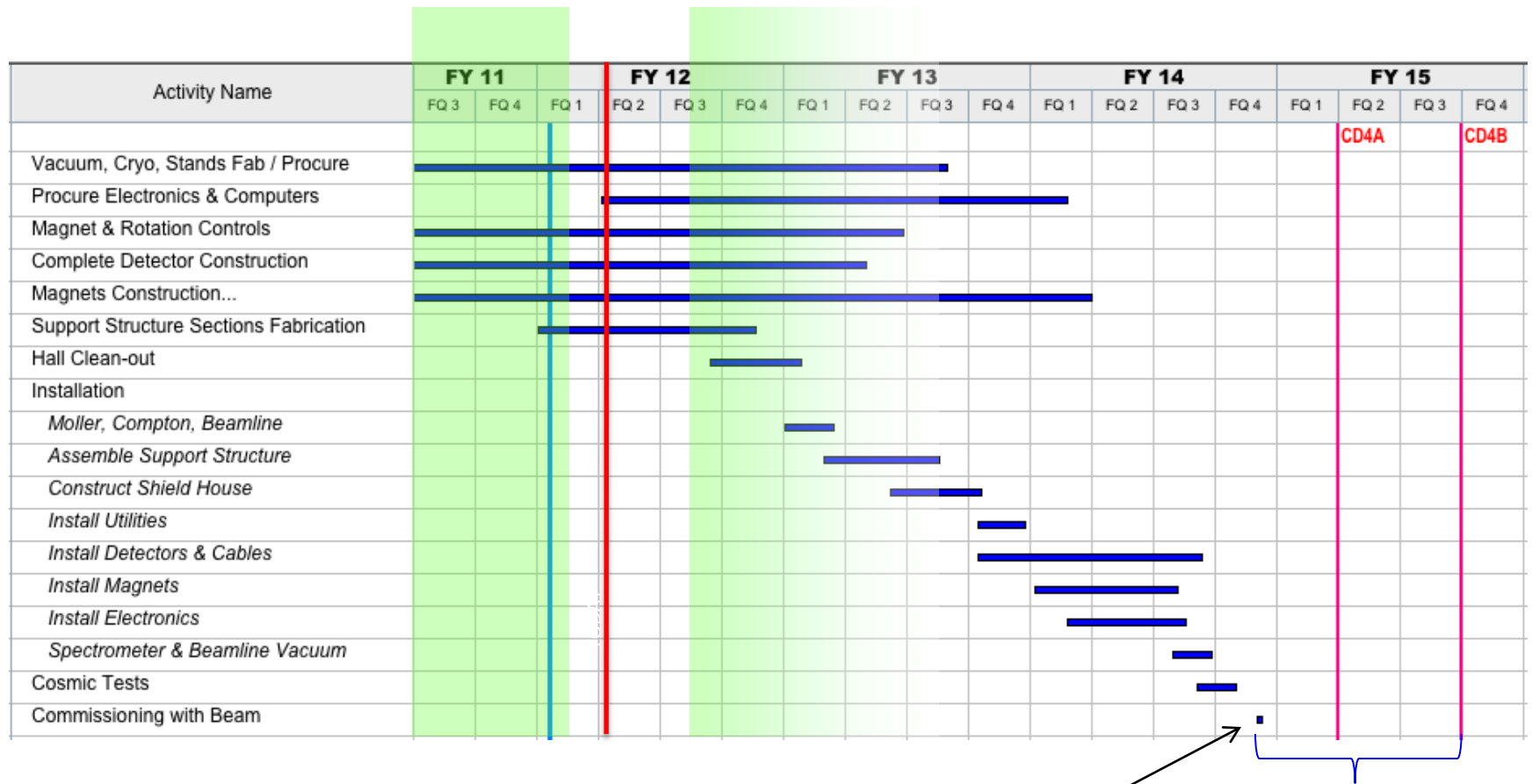


National

Approved and Conditional 12 GeV Hall C Experiments

Number	Experiment	Grade	Approved Day	Conditionally	Non-standard Equipment
E12-06-101	Pion Form Factor	A	52		
E12-06-104	SIDIS R	A-	40		
E12-06-105	$x > 1$	A-	32		
E12-06-121	He3 g_2	A-	29		Polarized He3 target
E12-07-105	($e, e'\pi$) Exclusive Factorization	A-	36		
E12-09-011	($e, e'K$) Exclusive Factorization	B+	40		
E12-09-017	SIDIS P_t	A-	32		
E12-09-002	Charge Symmetry Violation	A-	22		
E12-10-002	F2 @ large x	B+	13		
E12-10-003	$d(e, e'p)$	B+	21		
E12-10-008	EMC	A-	23		
E12-06-107	Color Transparency	B+	26		
E12-06-110	He3 A1n	A	36		Polarized He3 target
E12-11-002	He4($e, e'pol(p)$)	B+	37		FPP in HMS
E12-11-009	Neutron Form Factor	B+	50		Magnet + Neutron polarimeter
C12-11-102	Exl and semi-exl π^0 prod	C2		69	π^0 detector
E12-11-107	EMC $d(e, e'$ backward $p)$	B+	40		LAD (Hall B TOF bars)
			529	69	
Total		598 Days	6.8 Years	@	25 Weeks/year
					Schedule 2 days / PAC day

Hall-C Schedule (prepared October, 2011)

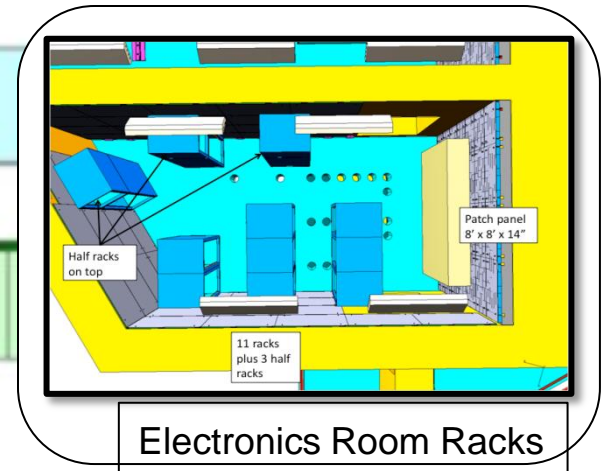
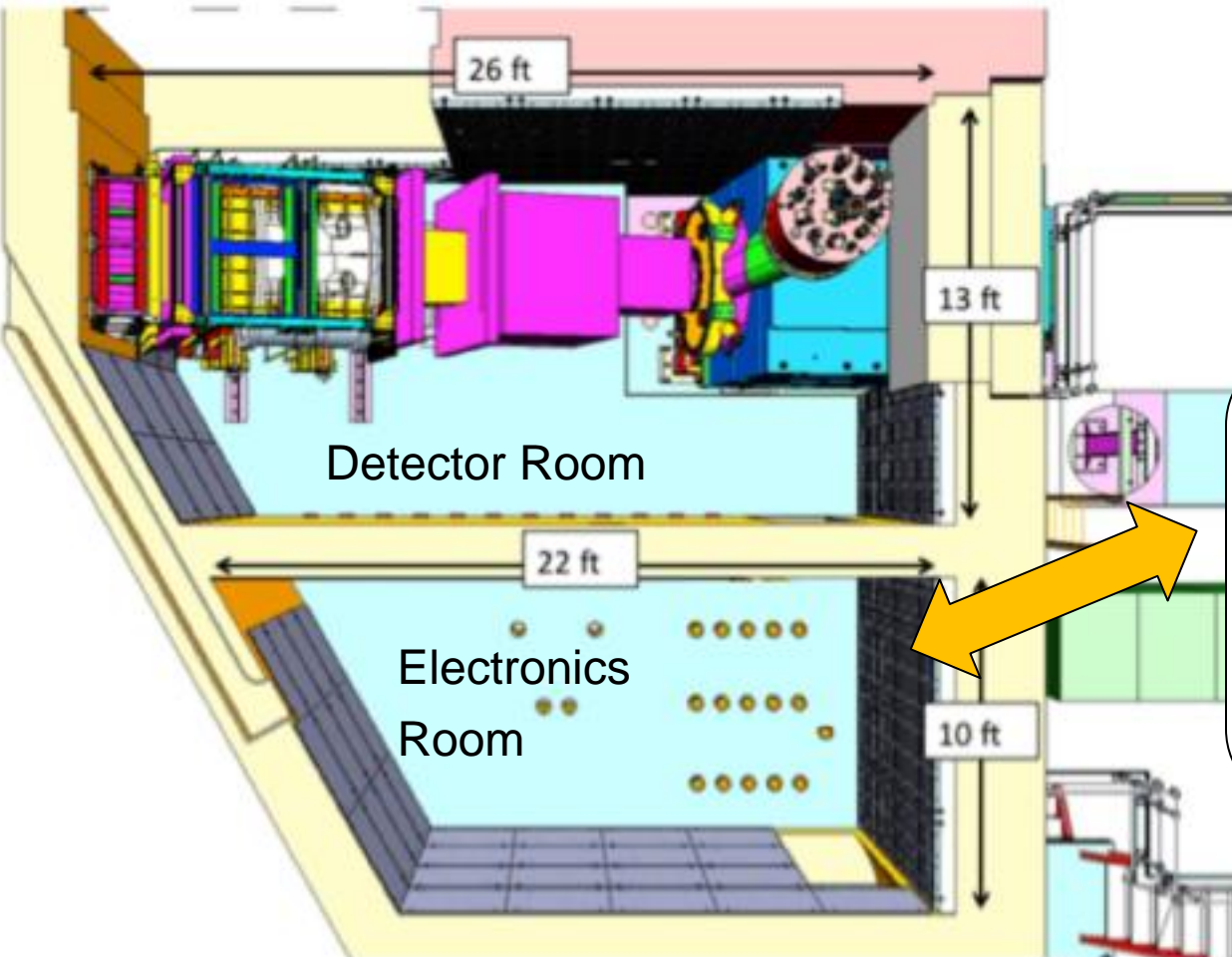


Commissioning with Beam - September 2014

10 months float

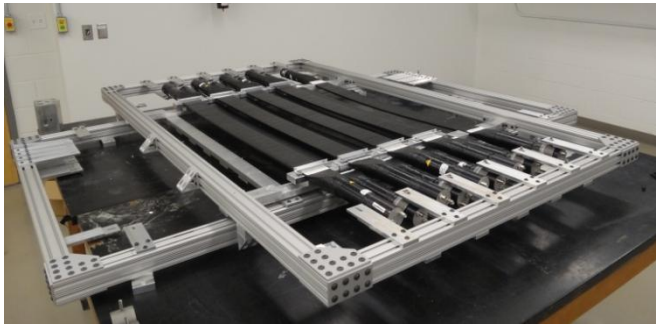
Shield House

Beam-side Wall Blocks & Roof Blocks
Removed for Detector Installation

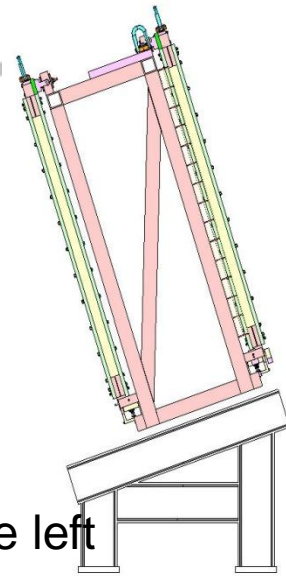


Detector Mounting Hardware

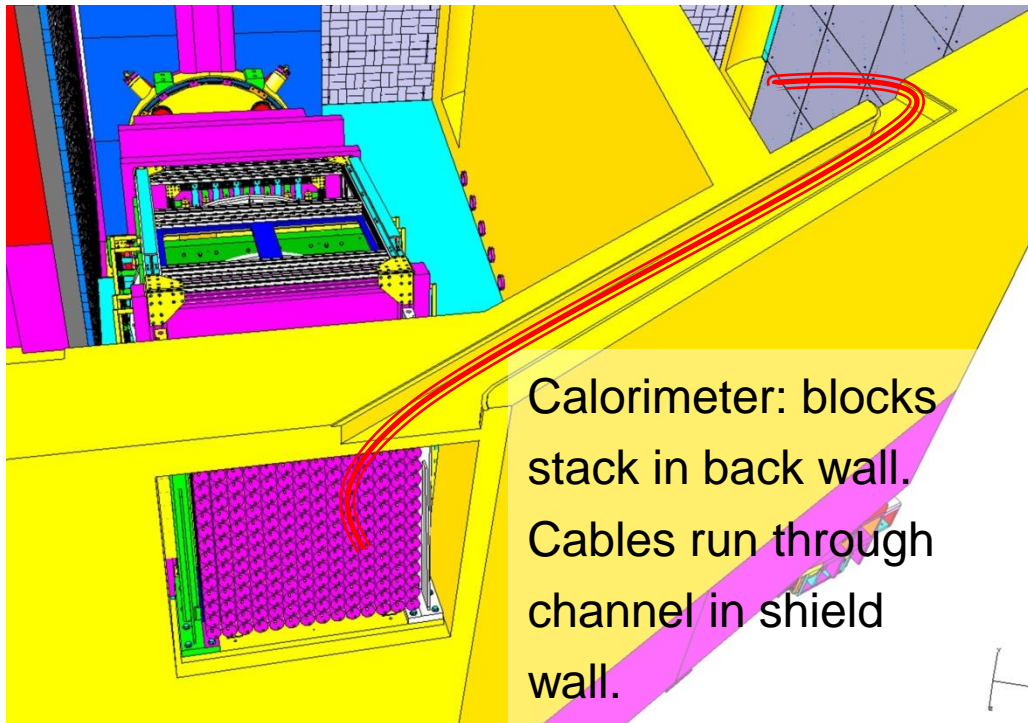
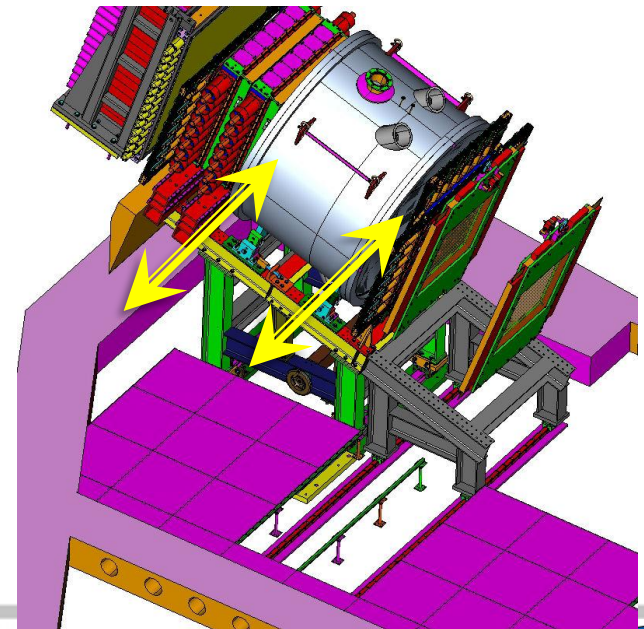
S1X/Y:
Done



Drift Chambers:
Stand detailing awaits
PCB production.



Drift Chambers &
S1/HGC/S2/AC slide left
for installation/service



Calorimeter: blocks
stack in back wall.
Cables run through
channel in shield
wall.

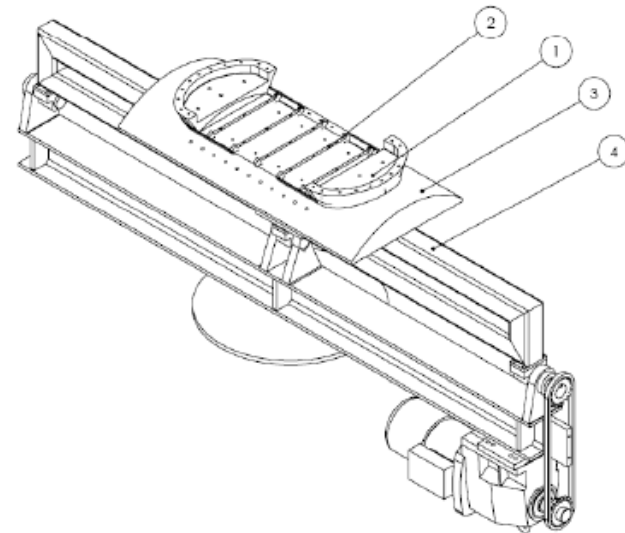
Sigma Phi Dipole Coil Prototyping Plan

- Validate the winding forces, the straight coil head behaviour, the turns stacking accuracy, the inner splice procedure, the B stage curing, the pancake spring back



Existing 2 axis winding table for SHMS prototyping

FF- 01/04/2011



Schematic view of the mock up winding former

Status – January 2012

Major SHMS items: magnets- all proceeding.

Concern: magnets are Critical Path for Hall C. Vendors must be watched or they slow down.

Magnet components by JLAB under contract.

In particular: copper extrusion is now complete.

Soldering production should be done

February/March. Cryo-control reservoirs are all complete. Power supplies are ahead of schedule (2 coming in February and 3 in June).

Yoke steel – will award this month.

Status – January 2012

HB Magnet hiccups

One HB coil destroyed when bumped on bench.

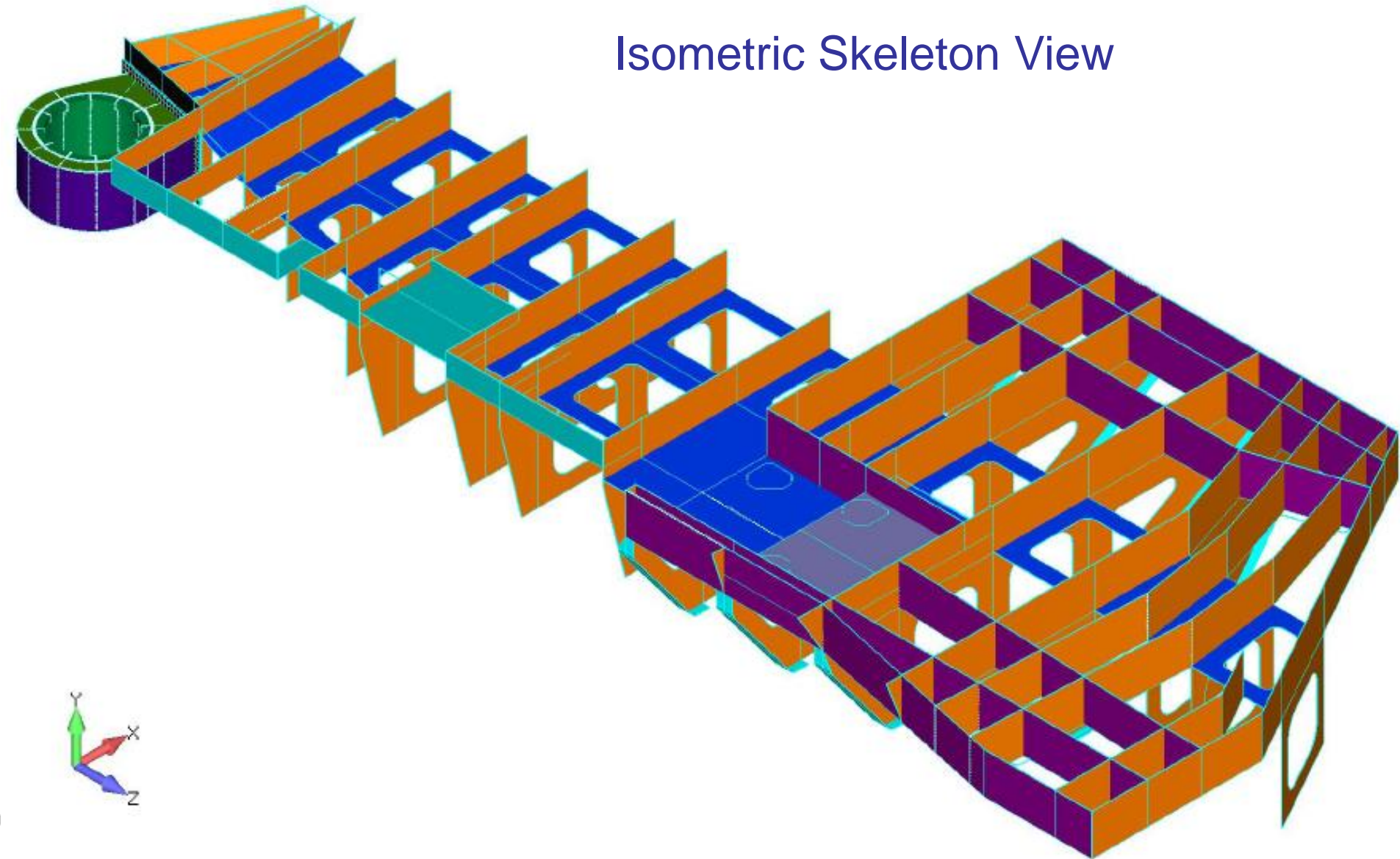
Rewind has begun.

Second HB coil passed current test. A lead was destroyed by lack of cooling, but the coil itself is fine.



SHMS Structure

Isometric Skeleton View



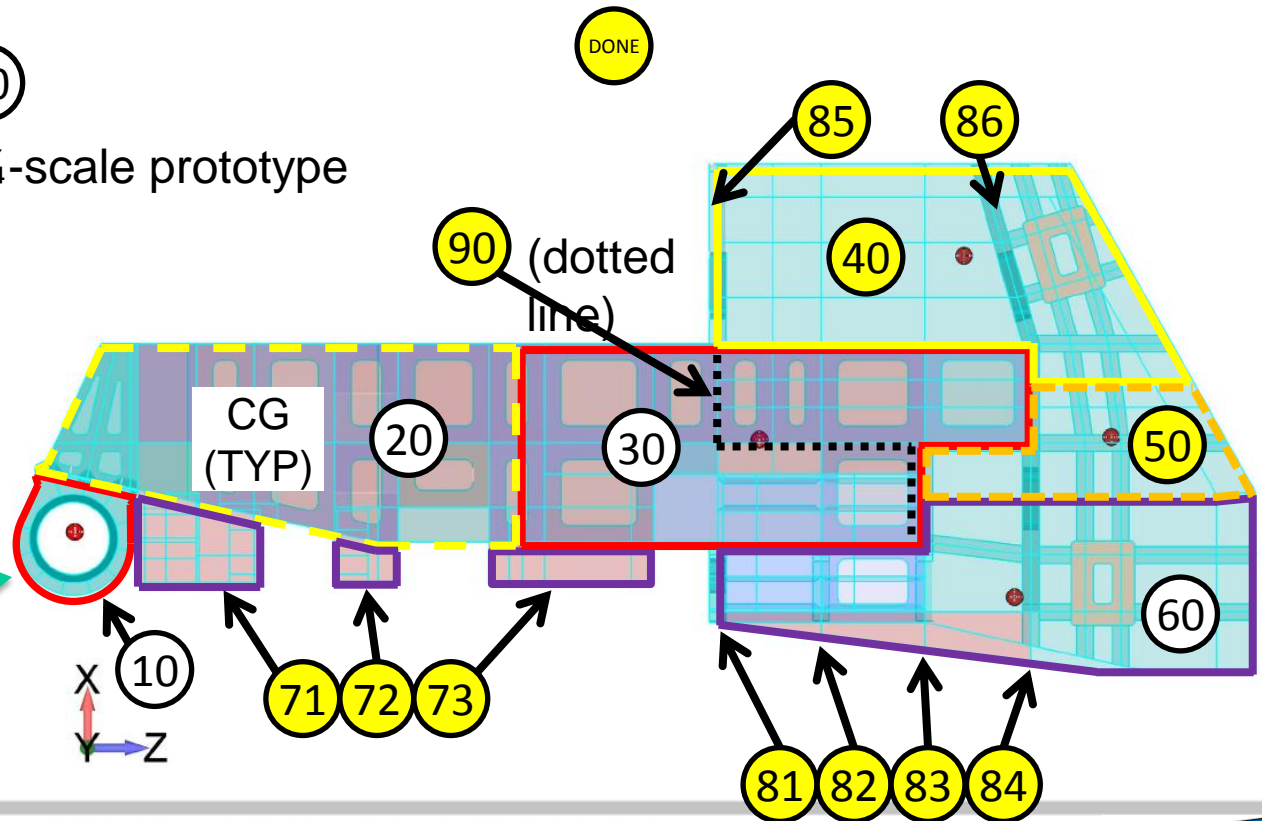
Status – January 2012

Support Structure: all under contract. Some delivered.
(Photos)



30

1/4-scale prototype



SHMS Structure Parts at JLab

January, 2012



ASTRO MACHINE WORKS
470 WENGER DR.
EPHRAATA, PA 17522
(717) 738-4281

To: SHMS Assembly #72
Qty = 1
Per Dwg. #67135-00045
Per PO #12-P0101
Maint. CAGE #3G8C7



Notes

Thanks to SHMS-HMS Users group board for help organizing this meeting

- John Arrington ANL 9/2012
- Eric Christy HU 9/2014
- Donal Day UVA 9/2013
- Tanja Horn CUA 9/2012
- Mark Jones JLab 9/2013
- Pete Markowitz FIU 9/2014

Slides from this meeting will be posted on agenda web page. Please email slides to saw@jlab.org

Hiring freeze. Postdoc hiring process frozen.

Hall C Party tonight 7PM