



Project Financial and Schedule Status and Summary

Greg Bock
NOvA PMG
March 19, 2013



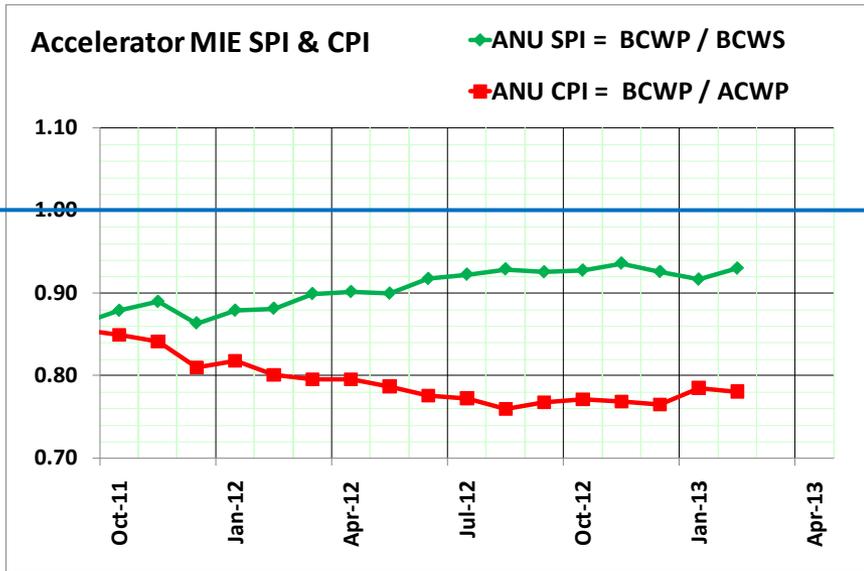
EVMS Reporting Overview

- Data now available through **February** 2013
 - SPI = **0.969**, compare to 0.968 in Jan, 0.970 in Dec, 0.975 in Nov, 0.972
 - CPI = **0.943**, compare to 0.949 in Jan, 0.937 in Dec, 0.940 in Nov, 0.934

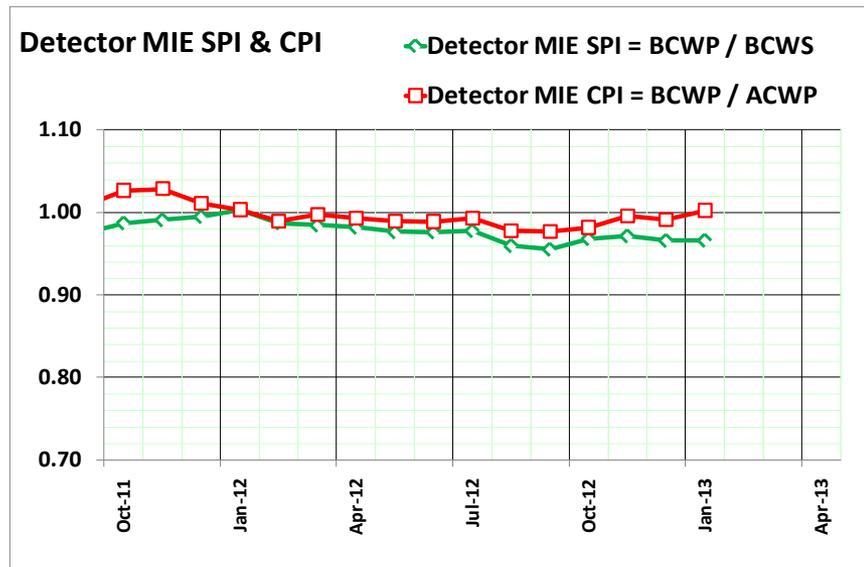




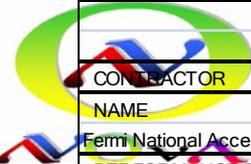
SPI & CPI for Active Work



- ANU CPI had a long slide down to 0.76 last Aug, then at 0.78 in Jan-Feb after:
 - Installed Sept Change Request doubling the labor estimate on unstarted tasks
 - Moved 3rd RF cavity off-project in Jan
- Meanwhile the SPI trends up, then ~ flat in Aug - Feb around 0.93.



- Detector still relatively constant near 1.0 for both indices
 - SPI=0.96, CPI=0.99 in Feb



**COST PERFORMANCE REPORT
FORMAT 1 - WORK BREAKDOWN STRUCTURE**

CPR1 Feb 2013

CONTRACTOR NAME Fermi National Accelerator Laboratory				CONTRACT NAME NOvA project				PROGRAM NAME NOvA project				FROM 01-Feb-2013 TO 28-Feb-2013	
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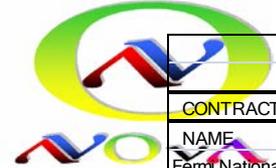
CTC-FndSrc CTC[2] Results... ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					AT COMPLETION		
	BUDGETED COST		ACTUAL COST	VARIANCE		BUDGETED COST		ACTUAL COST	VARIANCE		BUDGETED	LATEST REVISED ESTIMATE	VARIANCE
	WORK SCHEDULED	WORK PERFORMED	WORK PERFORMED	SCHEDULE	COST	WORK SCHEDULED	WORK PERFORMED	WORK PERFORMED	SCHEDULE	COST			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
DA DOE-ACEL MIE													
2.0 ANU Construction													
Fully burdened AY\$K	406	839	1,313	434	(474)	34,924	32,484	41,627	(2,440)	(9,142)	35,197	42,524	(7,327)
CTC-FndSrcTotals:	406	839	1,313	434	(474)	34,924	32,484	41,627	(2,440)	(9,142)	35,197	42,524	(7,327)
DC DOE-CA													
2.1 Site and Building													
Fully burdened AY\$K	0	0	0	0	0	35,060	35,060	34,872	0	188	35,060	34,872	188
CTC-FndSrcTotals:	0	0	0	0	0	35,060	35,060	34,872	0	188	35,060	34,872	188
DD DOE-ACEL R&D													
1.0 ANU R&D													
Fully burdened AY\$K	0	0	0	0	0	7,025	7,025	6,615	0	410	7,025	6,615	410
CTC-FndSrcTotals:	0	0	0	0	0	7,025	7,025	6,615	0	410	7,025	6,615	410
DE DOE-DET MIE													
2.1 Site and Building													
Fully burdened AY\$K	0	0	0	0	0	7,131	7,131	6,164	0	967	7,131	6,164	967
2.10 NOvA Project Management													
Fully burdened AY\$K	179	179	214	0	(34)	9,763	9,763	8,690	0	1,073	11,331	10,258	1,073
2.2 Liquid Scintillator													
Fully burdened AY\$K	702	355	764	(347)	(409)	11,374	10,616	11,076	(758)	(459)	21,120	21,798	(677)
2.3 WLS Fiber													
Fully burdened AY\$K	0	0	11	0	(11)	13,036	13,028	13,300	(8)	(271)	13,039	13,311	(271)
2.4 PVC Extrusions													
Fully burdened AY\$K	1,129	1,101	1,129	(28)	(28)	26,570	24,947	25,448	(1,623)	(501)	33,193	33,724	(530)
2.5 PVC Modules													
Fully burdened AY\$K	794	586	298	(208)	288	16,240	16,057	13,386	(183)	2,671	23,325	20,639	2,686
2.6 Electronics													
Fully burdened AY\$K	272	294	434	22	(140)	8,530	7,725	7,902	(805)	(178)	11,767	11,957	(190)
2.7 DAQ													
Fully burdened AY\$K	27	86	92	59	(6)	4,226	3,613	4,398	(613)	(785)	4,454	5,181	(727)
2.8 Near Detector Assembly													
Fully burdened AY\$K	502	544	736	42	(192)	9,951	10,452	11,257	501	(805)	12,236	13,077	(841)
2.9 Far Detector Assembly													
Fully burdened AY\$K	644	596	1,178	(48)	(582)	15,583	14,563	17,093	(1,019)	(2,529)	22,588	25,032	(2,444)
CTC-FndSrcTotals:	4,249	3,741	4,855	(508)	(1,114)	122,404	117,895	118,713	(4,508)	(817)	160,184	161,139	(955)

Overstated by ~\$360K

Overstated by ~200K

Accruals are now current

Accruals are now current



**COST PERFORMANCE
FORMAT 1 - WORK BREAKDC**

CPR1 Feb 2013 continued

CONTRACTOR						CONTRACT								
NAME						NAME						NOVA project		
Fermi National Accelerator Laboratory												TO 28-Feb-2013		
PERFORMANCE DATA														
CTC-FndSrc CTC[2] Results... ITEM	CURRENT PERIOD						CUMULATIVE TO DATE					AT COMPLETION		
	BUDGETED COST		ACTUAL COST	VARIANCE			BUDGETED COST		ACTUAL COST	VARIANCE			LATEST REVISED	
	WORK SCHEDULED	WORK PERFORMED	WORK PERFORMED	SCHEDULE	COST	WORK SCHEDULED	WORK PERFORMED	WORK PERFORMED	SCHEDULE	COST	BUDGETED	ESTIMATE	VARIANCE	
DO DOE- OPS														
1.0 ANU R&D														
Fully burdened AY\$k	0	58	4	58	54	1,818	1,766	1,379	(51)	387	1,818	1,432	386	
2.7 DAQ														
Fully burdened AY\$k	20	20	0	0	20	41	41	0	0	41	192	151	41	
CTC-FndSrcTotals:	20	79	4	58	75	1,859	1,808	1,379	(51)	429	2,010	1,582	427	
DR DOE-POST CD-1 DET R&D														
1.1 Site and Building R&D														
Fully burdened AY\$k	0	0	0	0	0	2,275	2,275	1,627	0	647	2,275	1,627	647	
1.2 Liquid Scintillator R&D														
Fully burdened AY\$k	0	0	0	0	0	297	297	389	0	(92)	297	389	(92)	
1.3 WLS Fiber R&D														
Fully burdened AY\$k	0	0	0	0	0	341	341	375	0	(34)	341	375	(34)	
1.4 PVC Extrusion R&D														
Fully burdened AY\$k	0	0	0	0	0	1,369	1,369	2,083	0	(714)	1,369	2,083	(714)	
1.5 PVC Module R&D														
Fully burdened AY\$k	0	0	0	0	0	2,260	2,260	2,421	0	(160)	2,260	2,421	(160)	
1.6 Electronics R&D														
Fully burdened AY\$k	0	0	0	0	0	2,028	2,028	2,600	0	(572)	2,028	2,600	(572)	
1.7 DAQ R&D														
Fully burdened AY\$k	0	0	0	0	0	1,635	1,635	2,822	0	(1,186)	1,635	2,822	(1,186)	
1.8 Detector Assembly R&D														
Fully burdened AY\$k	0	0	0	0	0	3,123	3,123	4,931	0	(1,808)	3,123	4,931	(1,808)	
1.9 Project Management R&D														
Fully burdened AY\$k	0	0	0	0	0	383	383	559	0	(176)	383	559	(176)	
CTC-FndSrcTotals:	0	0	0	0	0	13,711	13,711	17,806	0	(4,095)	13,711	17,806	(4,095)	
DY DOE CD-0 TO CD-1 R&D														
1.9 Project Management R&D														
Fully burdened AY\$k	0	0	0	0	0	8,801	8,801	8,801	0	0	8,801	8,801	0	
CTC-FndSrcTotals:	0	0	0	0	0	8,801	8,801	8,801	0	0	8,801	8,801	0	
Undist. Budget											0	0	0	
Sub Total	4,675	4,659	6,172	(16)	(1,514)	223,783	216,784	229,812	(7,000)	(13,028)	261,987	273,339	(11,352)	
Management Resrv.											0	0	0	
Total	4,675	4,659	6,172	(16)	(1,514)	223,783	216,784	229,812	(7,000)	(13,028)	261,987	273,339	(11,352)	

**Note - The NOVA project has been instructed not to report contingency in Cobra. The contingency is held by DOE and will be reported by the FPD.



CR & ETC Update Process

Monthly updates for each L2 system ongoing

Number of newly discovered activities and corresponding cost increase seem to be decreasing as one would expect

Jan

Count of Status- 1/16/13		
Cnt %	Row Labels	Total
67%	a) Tasks are complete, no change necessary	304
10%	b) Not changed, tasks will complete by end of CY13, and ETC forecast keeps track of anticipated contingency use	44
18%	c) Reviewed, no changes required	81
3%	d) Updated, CR completed	14
0%	d) Updated, Needs CR	1
2%	e) New activity, new BOE, CR completed	9
Grand Total		453

Feb

Count of Status- 2/13/13		
Cnt %	Row Labels	Total
76%	a) Tasks are complete, no change necessary	350
2%	b) Not changed, tasks will complete by end of shutdown	11
11%	c) Reviewed, no changes required	49
6%	d) Updated, CR completed	26
1%	d) Updated, CR needed, in Dec ETC update	5
2%	e) New activity, new BOE, CR completed	10
1%	k) New activity, BOE completed and CR in progress	3
1%	l) Reviewed, need more info, check status next month	4
Grand Total		458

Mar

Count of Status- 3/14/13		
Cnt %	Row Labels	Total
78%	a) Tasks are complete, no change necessary	359
3%	b) Not changed, tasks will complete by end of shutdown	15
12%	c) Reviewed, no changes required	57
4%	d) Updated, CR completed	17
1%	d) Updated, ETC completed	6
1%	e) New activity, new BOE, CR completed	5
0%	k) New activity, BOE completed and CR in progress	1
0%	l) Reviewed, need more info, check status next month	2
Grand Total		462



Change Requests in February

- 8 CRs in Feb, total of 131 K\$

CR Number	CR Title	NOVA-doc-	Level of Change	Date Approved	Final Cost Impact	Final Schedule Impact
632	Adjustments to M&S Budgets for Database Support Tasks - Outfitting Phase	8796	L4 (NOVA PM)	3/14/2013	\$3,664.00	none
631	Update Units-To-Do Quantities For Selected Liquid Scintillator Tasks	8790	L4 (NOVA PM)	3/12/201	\$0.00	none
630	Replan Budget and Schedule for Buffer Farm Third Purchase	8788	L4 (NOVA PM)	3/13/2013	(\$35,550.00)	none
629	Schedule Replan for Module Manifold Parts - Lot 4	8787	L4 (NOVA PM)	3/13/2013	\$0.00	none
628	Additional Fire Suppression System in Near Detector Equipment Alcove	8784	L4 (NOVA PM)	3/11/2013	\$38,514.00	none
627	Additional Budget for Quality Assurance System	8749	L4 (NOVA PM)	3/6/2013	\$52,424.00	none
626	Add FESS Engineering Hours for Near Detector Cavern Construction Oversight Activities	8733	L4 (NOVA PM)	3/6/2013	\$58,444.00	none
619	Additional M&S and Labor for Far Detector Filling Tasks	8654	L4 (NOVA PM)	2/26/2013	\$13,874.00	none



ETC actions and

- ETC changes = 412 K\$, dominated by 408 K\$ for mineral oil price change

ETC#	Item	WBS items/affected control accounts	CAM	estimated amount	NOvA-doc number for details	date of email approval	Disposition or resolution
27	EAC/ETC adjustment to 3 block-filling tasks in conjunction with CR619; these three tasks have baseline dates already in the past so they were not included in CR619 update; but their EACs are being changed to be consistent with the other filling task changes	2.9.4.4.4, 2.9.4.4.5, 2.9.4.4.6	Lukens (Tesarek)	1,664 AY\$ EAC/ETC increase relative to previous EAC	8731	27-Feb-13	processed in Open Plan on 27Feb13
28	EAC/ETC adjustment based on increase of mineral oil price from \$3.80 per gallon to \$4.05 per gallon (AY\$)	2.2.1.5.4.1, 2.2.1.5.4.6, 2.2.1.5.4.8, 2.2.1.5.4.10	Mufson	\$408,296 (AY\$) EAC/ETC increase relative to previous EAC (based on \$3.80 per gal.); (\$212,312) VAC relative to current BAC (based on \$3.92 per gallon)	8746	1-Mar-13	processed in Open Plan on 01Mar13
29	EAC/ETC to add M&S to each di-block APD installation and checkout task (14 tasks in total). Originally submitted as CR624, but it was agreed to process as just an EAC/ETC change, not a baseline change.	2.9.4.6.35 thru 2.9.4.6.48	Lukens (Tesarek)	1,885 AY\$ EAC/ETC increase in Open Plan relative to previous EAC (\$427,634 before --> 429,519 After)	8691	1-Mar-13	processed in Open Plan on 01Mar13

- Possible ETCs found, being watched, not enough info yet

WBS	Unincorporated Findings	Corrective Action	Possible Price Range	Comments
2.4	We need more resin to produce the 21,504 extrusions needed for a complete Far Detector	The Project is investigating how much is needed and the cost.	0 - 400 K\$	How many more extrusions need to be made (extrusions still left to make plus spares)? Depends on Minnesota good modules, Extrutech good extrusions, WBS 2.9 definition of good relative to specs. Zero \$ is possible.
2.5	Possible need for additional crane to keep up with assembly rate at Ash	Waiting for more information	0 - 40 K\$	This would be for additional sanding capacity if needed
2.9	The material and labor for the bookend at the Far Detector	Waiting for more information	0 - \$123 K\$	Until we have a better estimate of how much this will cost the collaboration, we are holding off with a change
2.9	Material and Labor for Far Detector Outfitting	Waiting for more information	0?	Until we have more information on how long each task takes (i.e. APD installation) we will not have the exact \$ amount. Once enough data is collect to calculate the duration a change request may be submitted.



AY\$ by Level 2 with MIE/OPC split

	WBS	Items	NOVA Costs to Date (\$M)	NOVA 's Cost Estimate AY \$M (for March 1, 2013 to project end)									
			as of	Estimated Cost (with indirects)			Mgmt Reserve Estimate			Contingency %			Total
			28-Feb-2013	M&S	Labor ¹	Total	M&S	Labor ¹	Total	M&S	Labor ¹	Total	Cost
TEC	2.0	Accelerator & NuMI Upgrades	\$ 41.6	\$ (1.3)	\$ 2.2	\$ 0.9	\$ -	\$ -	\$ -	0%	0%	0%	\$ 42.5
	2.1	Far Detector Site and Building	\$ 6.2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	\$ 6.2
	2.2	Liquid Scintillator	\$ 11.1	\$ 10.5	\$ 0.2	\$ 10.7	\$ -	\$ -	\$ -	0%	0%	0%	\$ 21.8
	2.3	Wave-Length-Shifting Fiber	\$ 13.3	\$ 0.0	\$ 0.0	\$ 0.0	\$ -	\$ -	\$ -	0%	0%	0%	\$ 13.3
	2.4	PVC Extrusions	\$ 25.4	\$ 7.9	\$ 0.3	\$ 8.3	\$ -	\$ -	\$ -	0%	0%	0%	\$ 33.7
	2.5	PVC Modules	\$ 13.4	\$ 2.4	\$ 4.8	\$ 7.3	\$ -	\$ -	\$ -	0%	0%	0%	\$ 20.6
	2.6	Electronics Production	\$ 7.9	\$ 3.1	\$ 1.0	\$ 4.1	\$ -	\$ -	\$ -	0%	0%	0%	\$ 12.0
	2.7	Data Acquisition System	\$ 4.4	\$ 0.4	\$ 0.3	\$ 0.8	\$ -	\$ -	\$ -	0%	0%	0%	\$ 5.2
	2.8	Near Detector Assembly	\$ 11.3	\$ 1.1	\$ 0.7	\$ 1.8	\$ -	\$ -	\$ -	0%	0%	0%	\$ 13.1
	2.9	Far Detector Assembly	\$ 17.1	\$ 2.8	\$ 5.2	\$ 7.9	\$ -	\$ -	\$ -	0%	0%	0%	\$ 25.0
	2.10	Project Management	\$ 8.7	\$ 0.1	\$ 1.5	\$ 1.6	\$ -	\$ -	\$ -	0%	0%	0%	\$ 10.3
		Subtotal Construction	\$ 160.3	\$ 27.1	\$ 16.2	\$ 43.3	\$ -	\$ -	\$ -	0%	0%	0%	\$ 203.7
OPC		R&D - Accelerator	\$ 6.6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	\$ 6.6
		R&D - Detector	\$ 26.6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	\$ 26.6
		Cooperative Agreement	\$ 34.9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%	0%	\$ 34.9
		Operating - Accelerator	\$ 1.4	\$ 0.0	\$ 0.0	\$ 0.1	\$ -	\$ -	\$ -	0%	0%	0%	\$ 1.4
		Operating - Detector	\$ -	\$ -	\$ 0.2	\$ 0.2	\$ -	\$ -	\$ -	0%	0%	0%	\$ 0.2
		Total OPC:	\$ 69.5	\$ 0.0	\$ 0.2	\$ 0.2	\$ -	\$ -	\$ -	0%	0%	0%	\$ 69.7
		Contingency										4.661	
		TPC:	\$ 229.8	\$ 27.1	\$ 16.4	\$ 43.5	\$ -	\$ -	\$ 4.7	0%	0%	11%	\$ 278.000

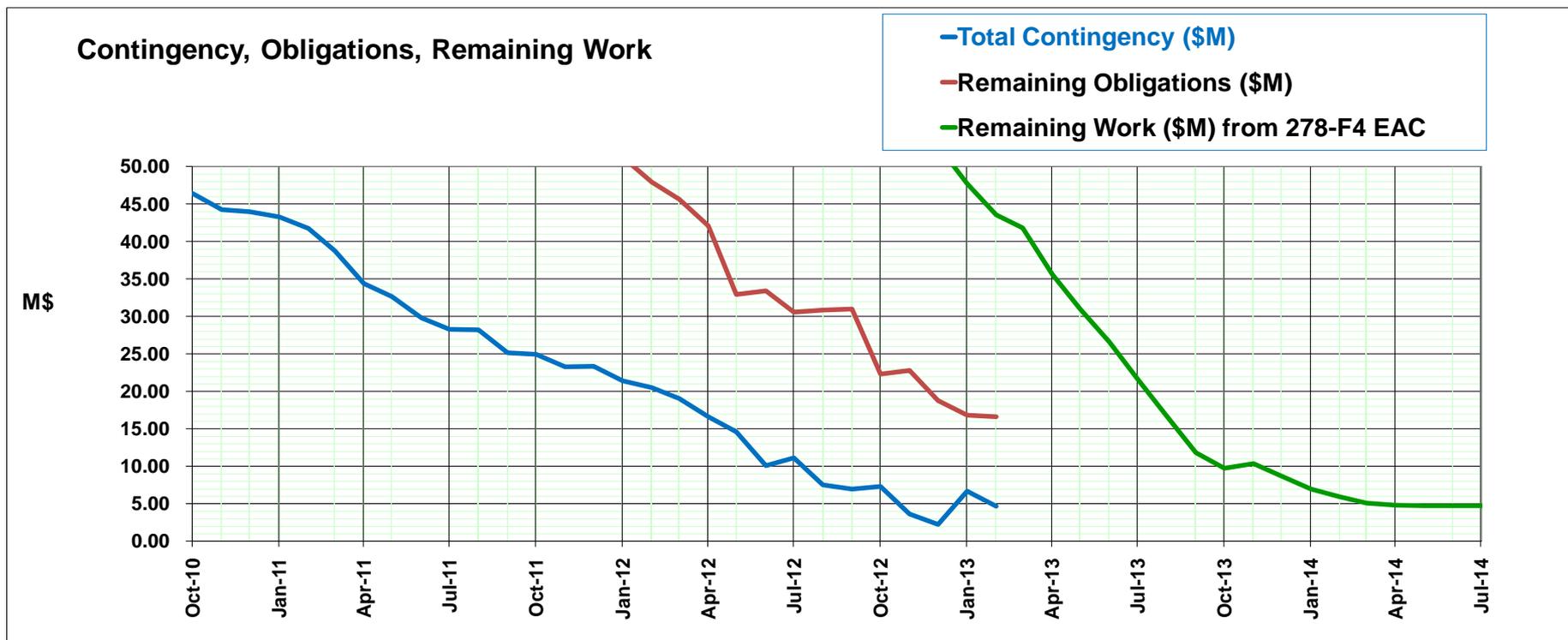
- **We are claiming 5.2 M\$ Contingency**
 - \$4.7M + .4M (complete re-purposing) + .2M (known false variance)
 - This is 12% of remaining work (5.2 / 43.5)
 - This is 31% of remaining Obligations
 - 273.339 (EAC) - 256.764 obligated = 16.575 M\$ yet to obligate



- Another very productive month--\$4.3M of BCWP
- Reconciled past accrual mismatches
- Contingency draws:
 - Decided to adopt recently increased oil price into ETC \$400K
 - Identified \$135K of new tasks
 - Approximately 0.2M negative cost variance on work performed



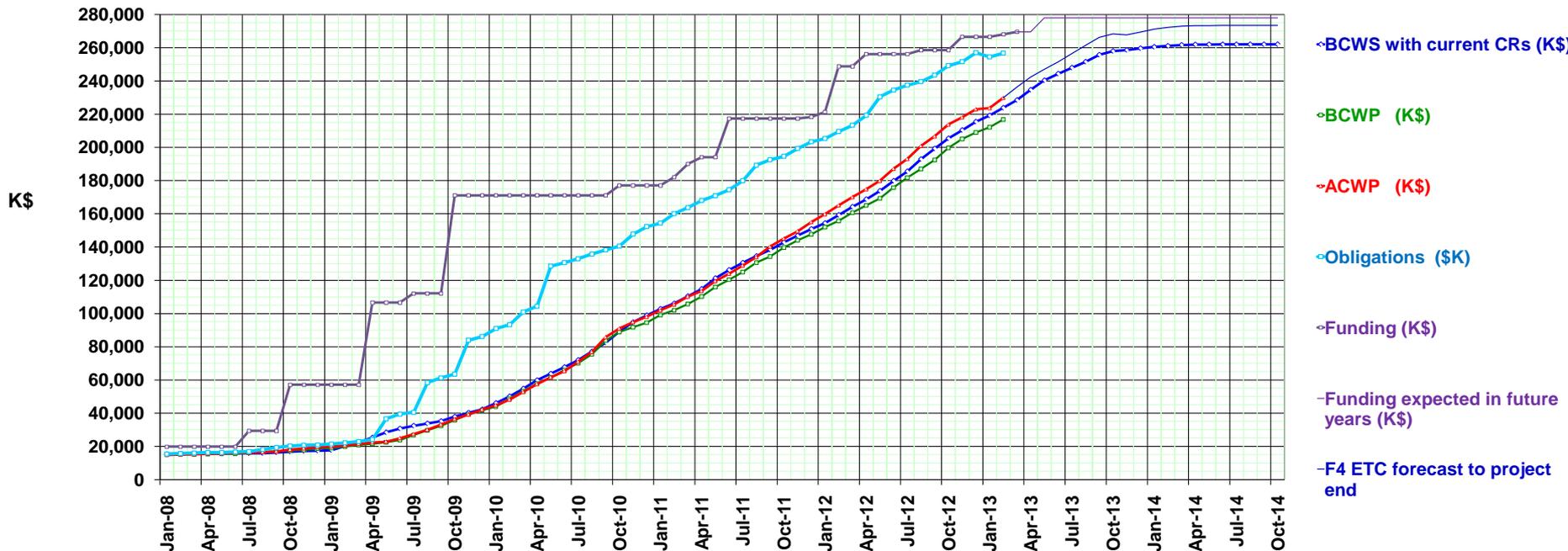
Contingency History



- This illustrates the difference between Remaining Obligations and Remaining Work.
- We are on final approach at ~\$4-5M/month

EVMS Reporting Overview

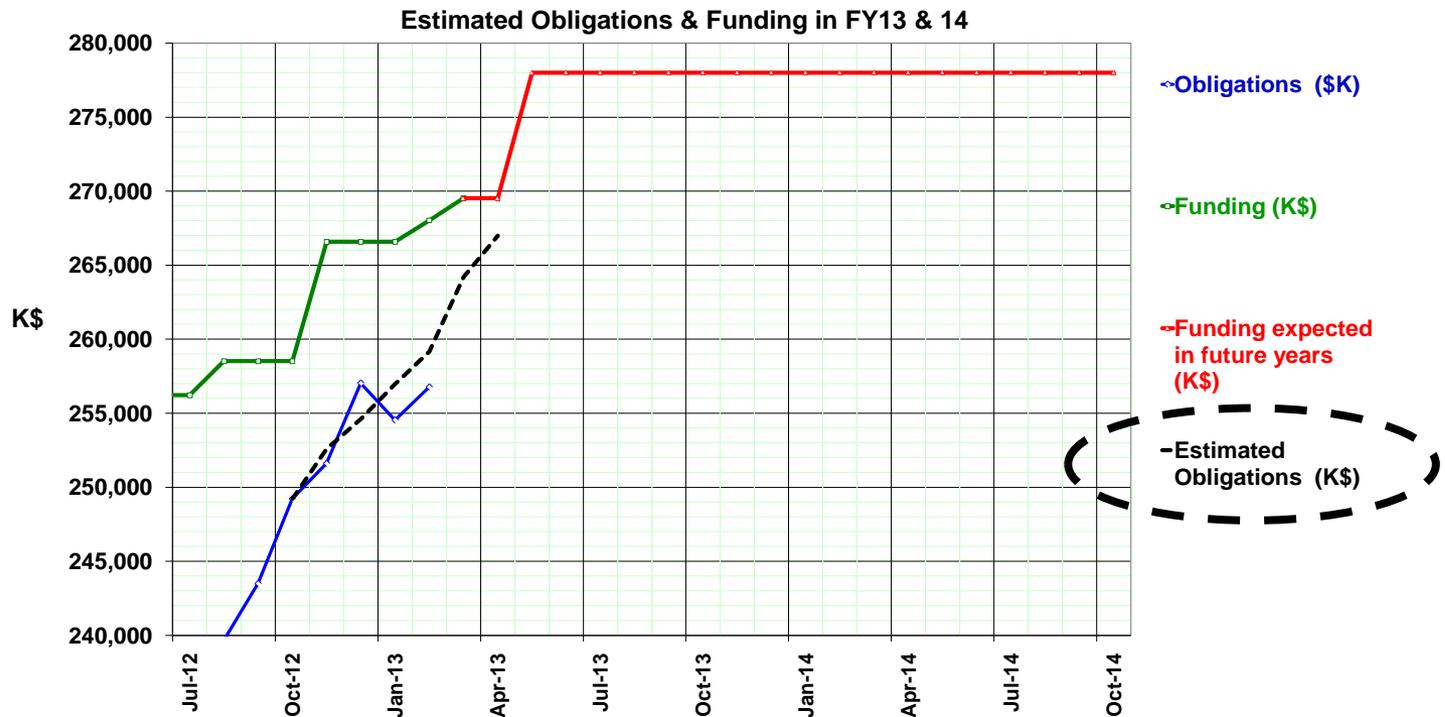
- Basic data in BCWS, BCWP, ACWP, **Funding & Obligations** through **Feb 2013**
 - BCWS = Budgeted cost of work Scheduled
 - BCWP = Budgeted cost of work Performed
 - ACWP = Actual cost of work Performed
- Project is 82.8 % complete ($BCWP/BAC = 216.8 \text{ M\$} / 262.0 \text{ M\$}$)
 - BAC = Budget at Completion (using EAC = 273.3, get 79%)
- Project is 98.0 % obligated, ($Obligations/BAC = 256.8 / 262.0$)
 - EAC = Estimate at Completion (using EAC, get 94%)





Avoided Funding trouble ~ Apr 1

- 5/12 FY13 initially, 1/12 in Feb 2013, Guidance is 1.5 M\$ in March
- Extrapolation of obligations (**estimated, not exact**) looked tight at April 1
 - Helped to move RF Cavity #3 & Prototype Det Bldg off-project in Jan
- Initially cut back on Minnesota P.O.s to under 50% of FY13 need for Minneapolis Factory and Ash River Assembly
 - Now proceeding with the rest of those P.O.s





NOvA Feb 28, 2013 Budget Status

- TPC \$ 278.0 M
- ETC \$ 43.5 M

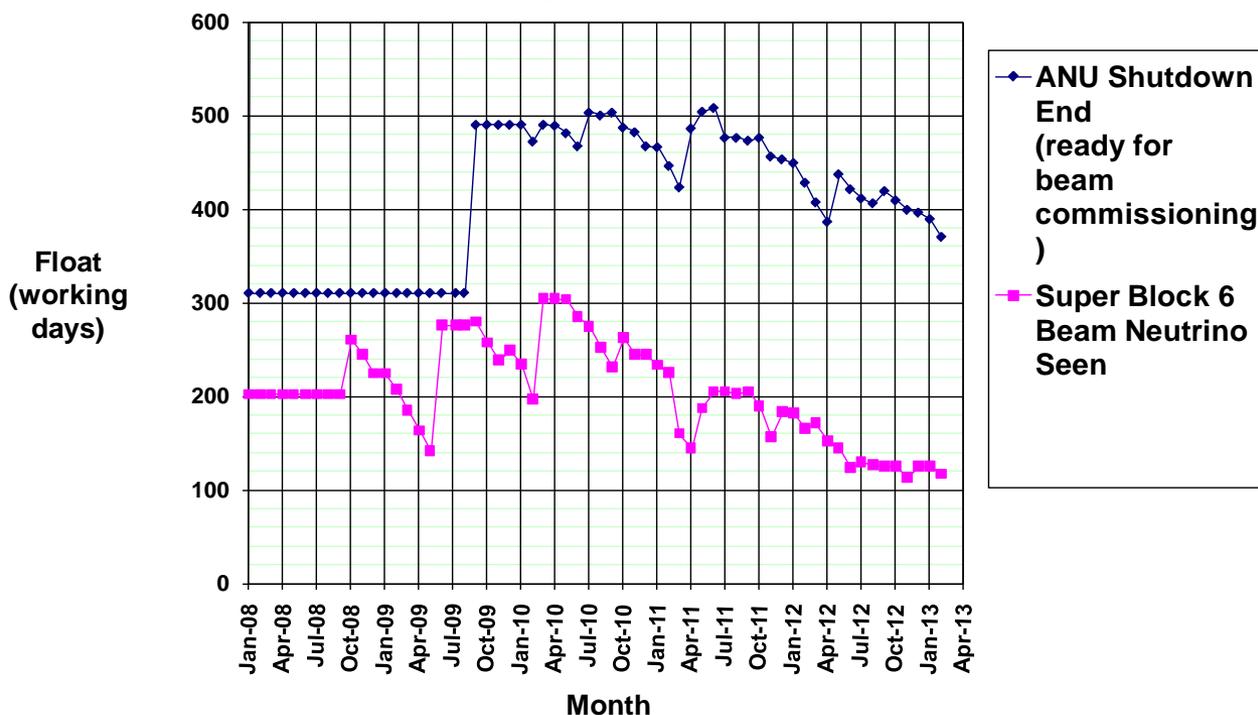
- Contingency (adjusted) \$ 5.2 M



Schedule Contingency: Float to CD-4

- **ANU lost 19 days of float in February -- Now at 370 days**
 - Kicker and RF schedules are still the real drivers for the end of the shutdown
 - This implies ready for beam on June 7, but we are forecasting May 17, 2013
- **The Detector lost 8 days of float in February -- Now at 117 days**
 - This is driven by APD delivery & testing of APDs for the 28th block.
 - But zero float between filling last di-block and start of APD installation last di-block.
 - As noted in J. Cooper's talk, both of these efforts are ramping up the pipeline speeds even though the final Ash River work has demonstrated the full rate can be attained.

Tracking Float to CD-4





Schedule Contingency Summary

- As of **Feb 28**, we have **117** working days float to CD-4
- As of **Feb 30**, we have **21** months to CD-4 = **438** working days
 - CD-4 is end of November, 2014
- Schedule Contingency is $117 / (438 - 117)$ days = **36%**.



Nova_Project Milestone Gantt Chart

Nova_Milestones_L1_L2 = [BOOL.T] and ESDATE >= {10/1/08}
February 2013 Status

Baseline Date 
Completed Milestone 
Current Forecast Date 

DOE – Fed Project Director

Activity Desc.	Baseline Date	Forecast / Actual Date	Baseline Variance	FY11				FY12				FY13				FY14							
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
L.2 -- DOE- NOVA Project Director Milestone																							
DOE OEMC - FRA EVMS Readiness Assessment	01Oct08	09Jan09	-67d																				
DOE OEMC - FRA EVMS Certification Review	01Dec08	15May09	-114d																				
DOE OHEP CD-3a Mini-review	15Jan09	24Oct08	52d																				
Site preparation purchase order released	06Apr09	22May09	-34d																				
Waveshifter PO issued	22May09	08Jun09	-10d																				
DOE OEMC - FRA EVMS Certified	01Jun09	28Jan10	-164d																				
DOE OHEP CD-3b Review	01Jun09	23Jul09	-37d																				
Extrusion PO issued	01Oct09	11Dec09	-49d																				
WLS fiber PO issued	02Nov09	01Sep09	42d																				
Decision point for buying additional waveshifter powders	11May10	01Dec09	109d																				
IPND blocks (4 of 6) completed	12Jul10	09Jul10	0																				
Mineral oil PO issued	01Oct10	07May10	101d																				
APDs PO issued	18Jul11	15Aug11	-21d																				
Block pivoter completed	30Apr12	30Apr12	-1d																				
Decision point for buying additional WLS fiber	03Jul12	03Jul12	-1d																				
Decision point for buying additional extrusions, modules, mineral oil, pseudocumene	13Feb13	31Jan13	8d																				
MI Ring Modifications Ready for Beam Transport	01Jul13	17May13	29d																				
RR Modifications Ready for Beam Transport	01Jul13	07Jun13	15d																				
Ready to Commission Upgrades with Medium Energy Neutrino Beam	01Jul13	07Jun13	15d																				
Decision point for buying additional APDs	29Jul13	31Jan13	124d																				



Milestones held by Directorate

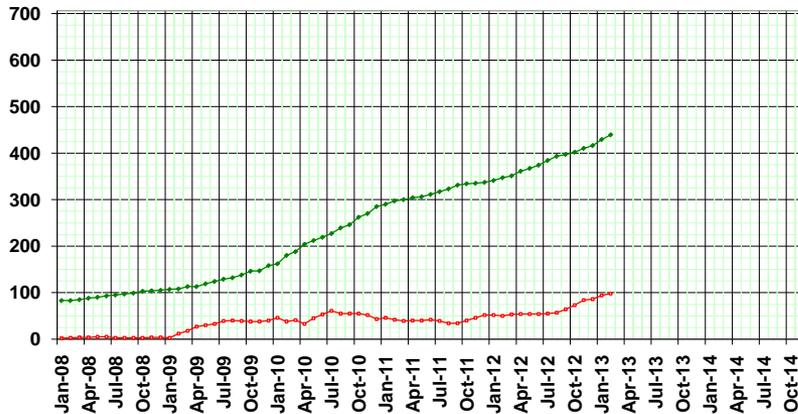
 Nova_Project Milestone Gantt Chart Milestone_L3_L4 = [BOOL.T] and (ESDATE >= {10/01/08} or BSDATE >= {10/01/08}) and BFDATE NOT_EMPTY February 2013 Status TimeNow: 01Mar13					Baseline Date ▼			Completed Milestone ★			Current Forecast Date ▲																					
Activity ID	Activity Desc.	Baseline Date	Forecast or Actual Date	Baseline Variance	FY09				FY10				FY11				FY12				FY13				FY14							
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3					
2.5.3.3.2.45.44	Far detector module assembly started	16Mar12	29Feb12	11d																	★											
2.7.2.1.2.8	Production data concentrators received	30Mar12	28Nov12	-169d																												
2.10.10.5	Accelerator Shutdown Begun	30Apr12	30Apr12	0																												
2.0.3.2.4.3	NuMI ME Target/Carrier/Baffle Assembly Complete	20Aug12	20Aug12	0																												
2.10.9.11	FY13 Funds Available	01Nov12	29Nov12	-19d																												
2.0.2.2.5.4	MI RF Cavities (2) Installation & Testing Complete	16Nov12	06Dec12	-13d																												
2.0.4.3.13	ANU Shielding Assessment Updates Complete	30Nov12	01Mar13	-60d																												
2.0.1.2.8.5	RR All Kicker Systems Ready for Beam	10Dec12	12Apr13	-84d																												
2.2.4.3.80	Scintillator production for 14 kt completed	08Nov13	11Apr14	-103d																												
2.9.4.5.37	Superblock 6 outfitting completed	14Jan14	14Apr14	-63d																												
2.10.9.27	FNAL/Nova Internal Operational Readiness Review and CD-4 Readiness Review Assessment Completed	02Sep14	02Sep14	0																												



Analysis of all milestones

- **439 of 706 now complete**
 – 10 completed in **February**
- **Behind on 98**

Milestones since Jan 2008



♦Total Milestones completed
 ♦Milestones uncompleted and behind schedule

Cumulative Tally as of 01Mar13
 For Milestone Dates >= 12Apr07

Count of Milestone Description		
Computed Status	Milestone Level	Total
Complete	L.0	2
	L.1	7
	L.2	27
	L.3	23
	L.4	48
Complete Total		439
Planned	L.0	1
	L.1	4
	L.2	7
	L.3	5
	L.4	34
Planned Total		267
Grand Total		706

Slipping/Missed Milestones as of 01Mar13

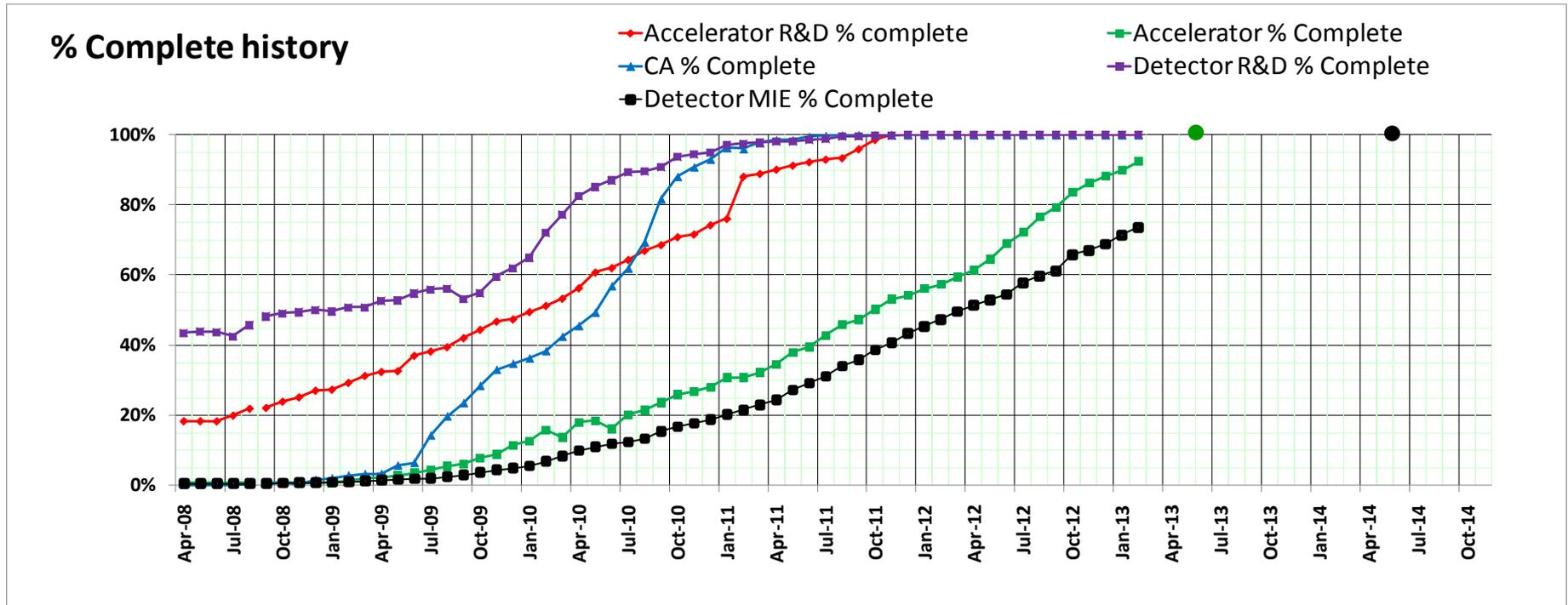
Count of Milestone Description		
Computed Status	Milestone Level	Total
Planned	L.3	2
	L.4	14
	L.5	82
Planned Total		98

Milestones Completed in February 2013

Count of Milestone Description		
Computed Status	Milestone Level	Total
Complete	L.4	2
	L.5	8
Complete Total		10



% Complete history for the 5 Main parts of the Project



- **ANU at 88%, to be complete by ~ June 2013**
- **Detector at 74%, to be complete by ~ June 2014**
- **Building & Detector R&D & ANU R&D are all done**



Summary comments

- Project is in very good technical shape (Cosmic rays seen in February and Fermilab neutrinos in June, risks retiring); contingency remains low, but project is on a trajectory to finish on schedule and budget
- On the financial front:
 - Continue monthly focus on EAC updates—this month we decided to incorporate the recent mineral oil price rise, although we still hope for a return to lower prices
 - ANU work nearing end and has been on-the-plan since January
 - Ash River assembly work going very well; estimates holding by and large and corrective actions taken as needed
 - \$4.3M worth of progress last month—\$43.5M to go
- Mini-review held February 27—recognized technical progress and improved financial status.
 - Continuing weekly technical status updates with OHEP and FSO
 - Instituting monthly discussions between FSO, OHEP, OPA, and Project