

NPS Hardware Status

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Topics

- Hardware Storage
- Transporting Calorimeter
- Temperature variations during transit and in ESB
- Schedule
- LOTO Pause
- Lessons learned.



Disassembly
of NPS
platform



Removal of NPS
detector from
platform



Preparing for open house.



Securing Detector for
transport to ESB



Transporting To ESB



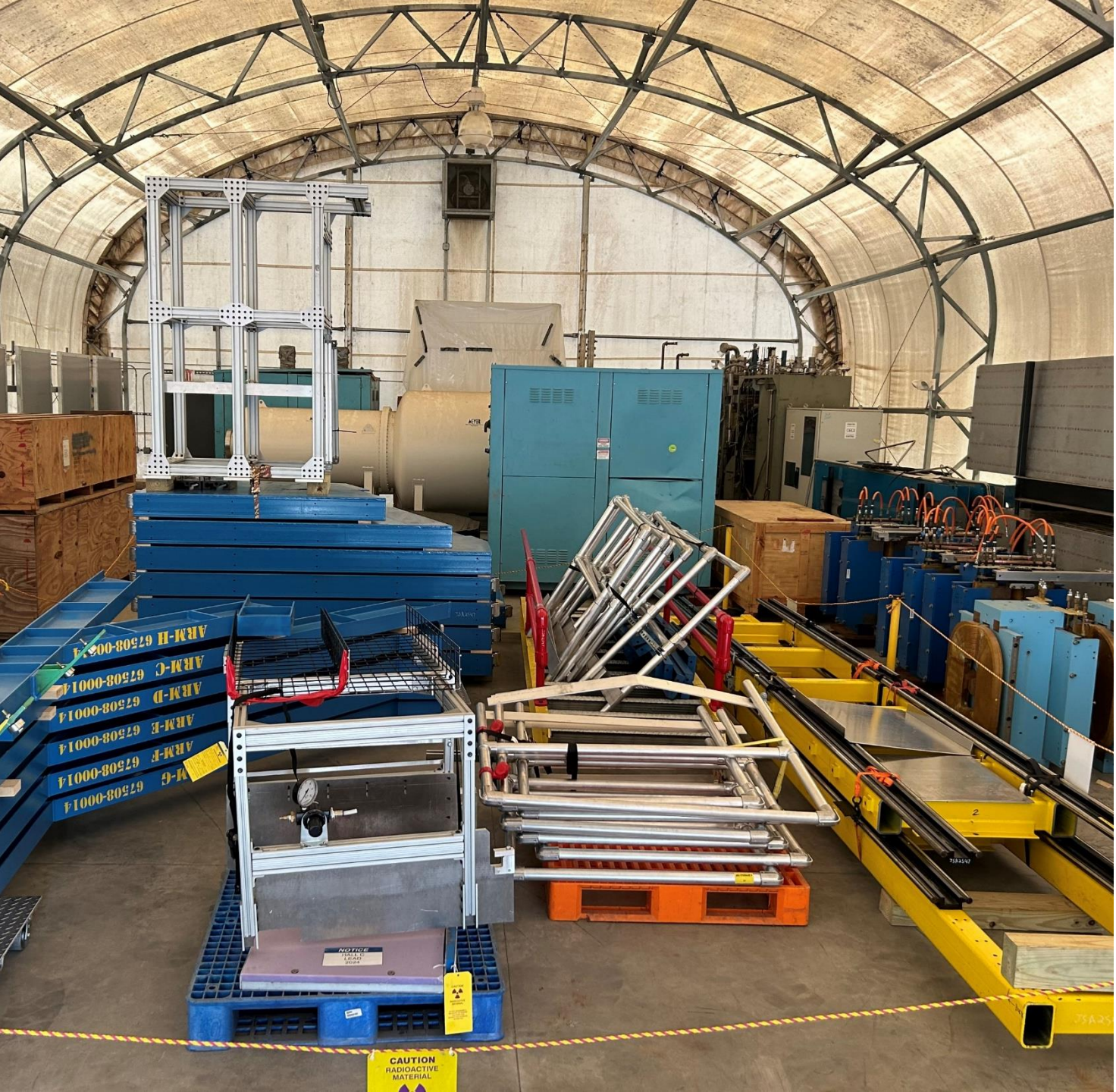
Off loading at ESB



Final storage in ESB



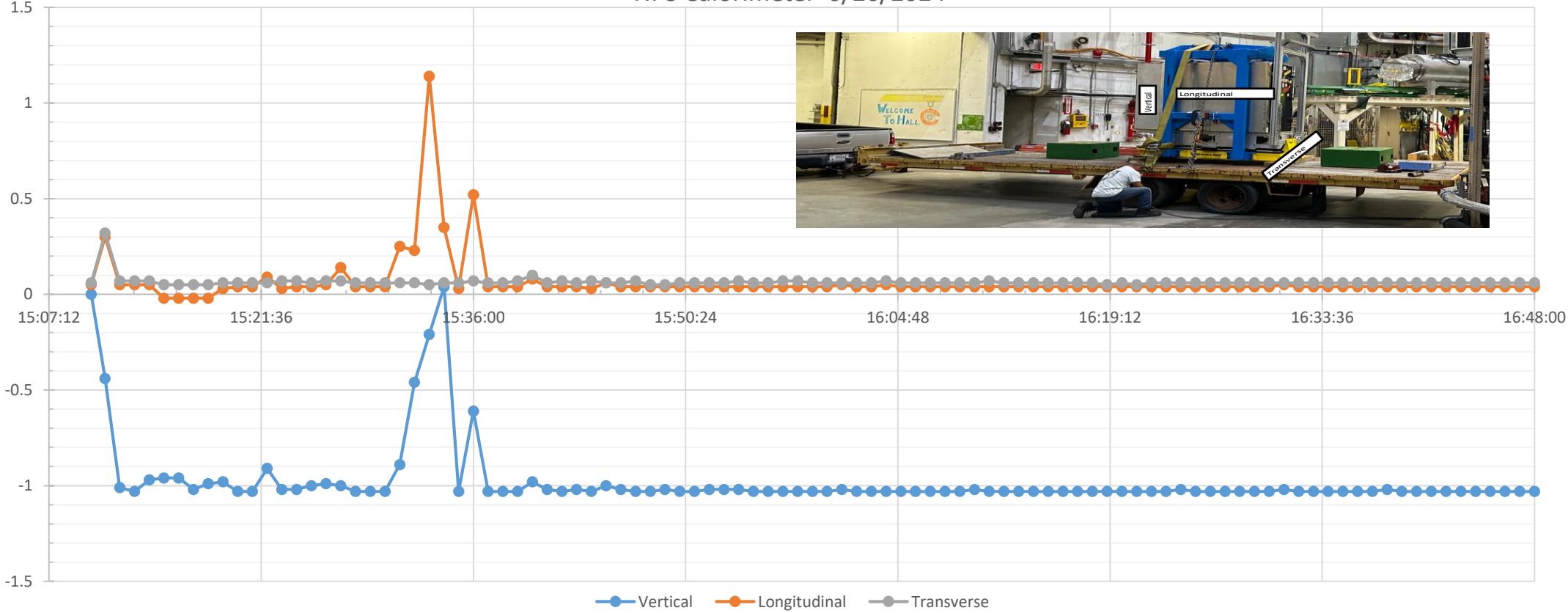
Activated
pieces banded
together and
tagged in
Building 64
(Fabric
Building)



Pieces stored
in Fabric
Building

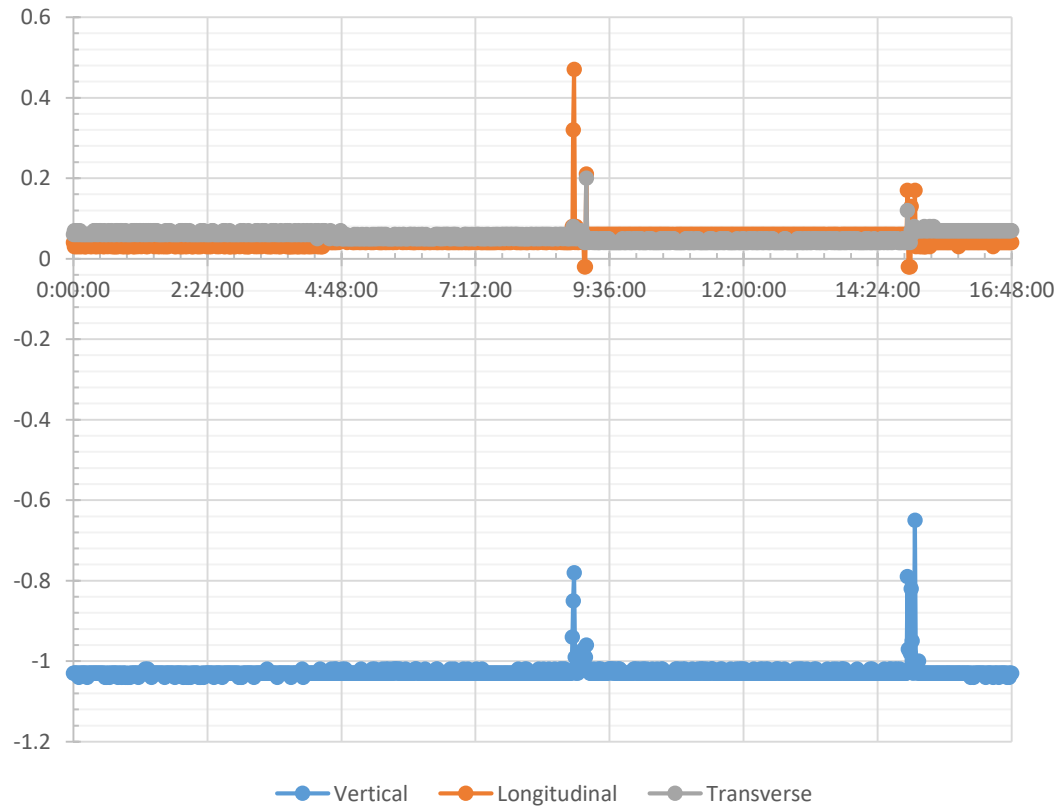
First lift on to Trailer

NPS Calorimeter 6/26/2024

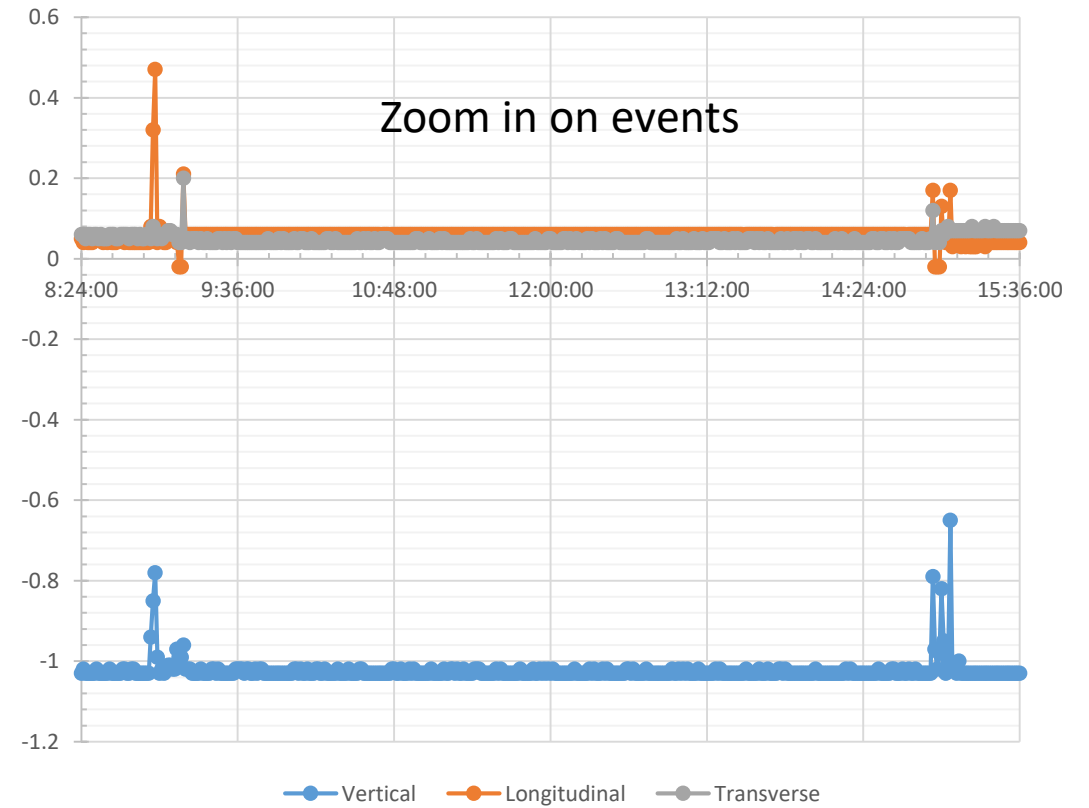


Trailer had Flat tire, NPS Calo removed and re-installed on Trailer

NPS Calorimeter 6/27/2024

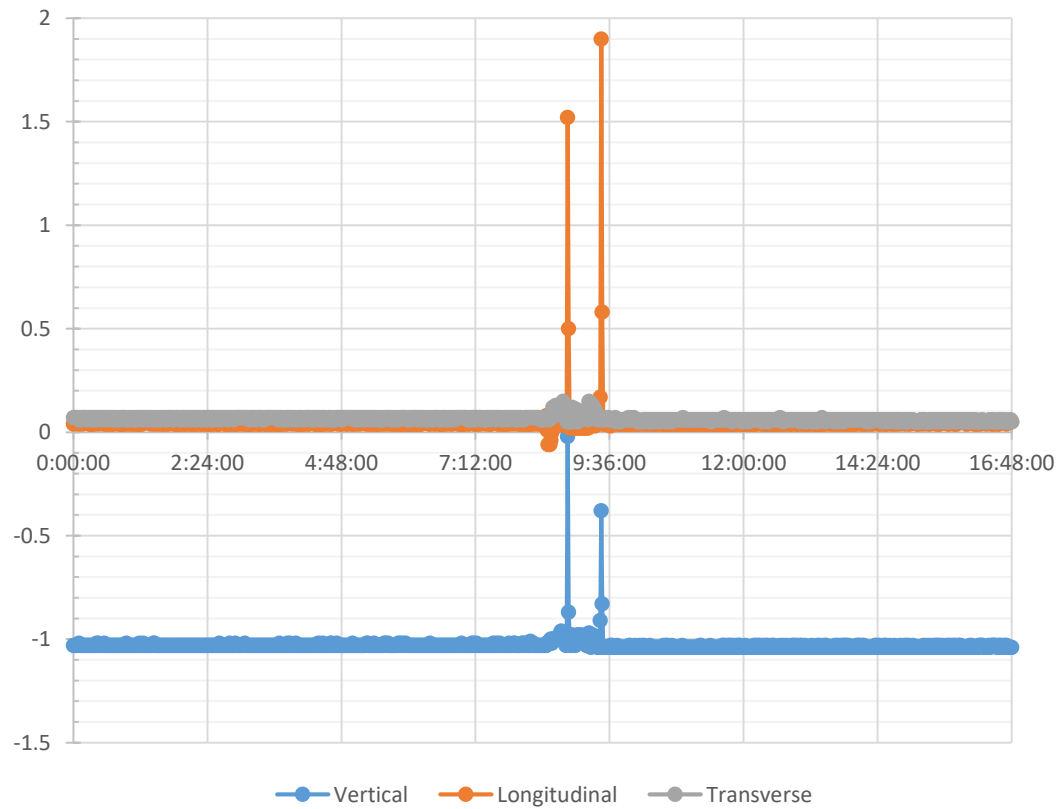


NPS Calorimeter 6/27/2024

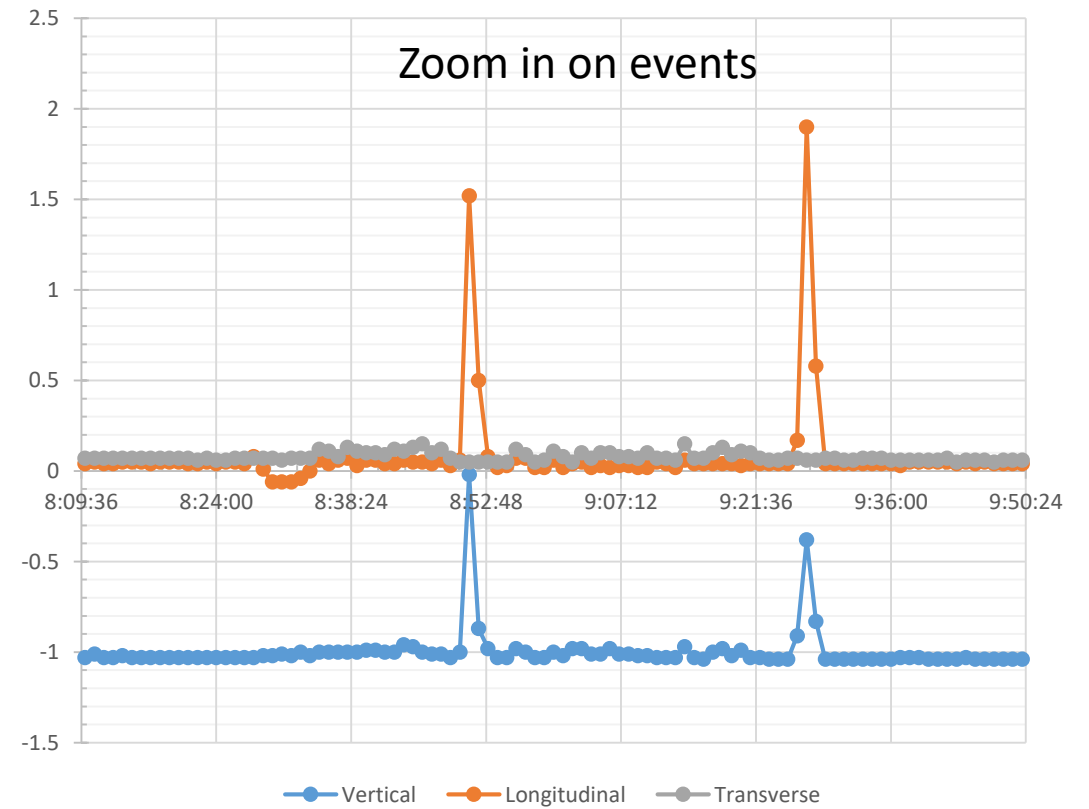


NPS Calo moved to ESB and off loaded

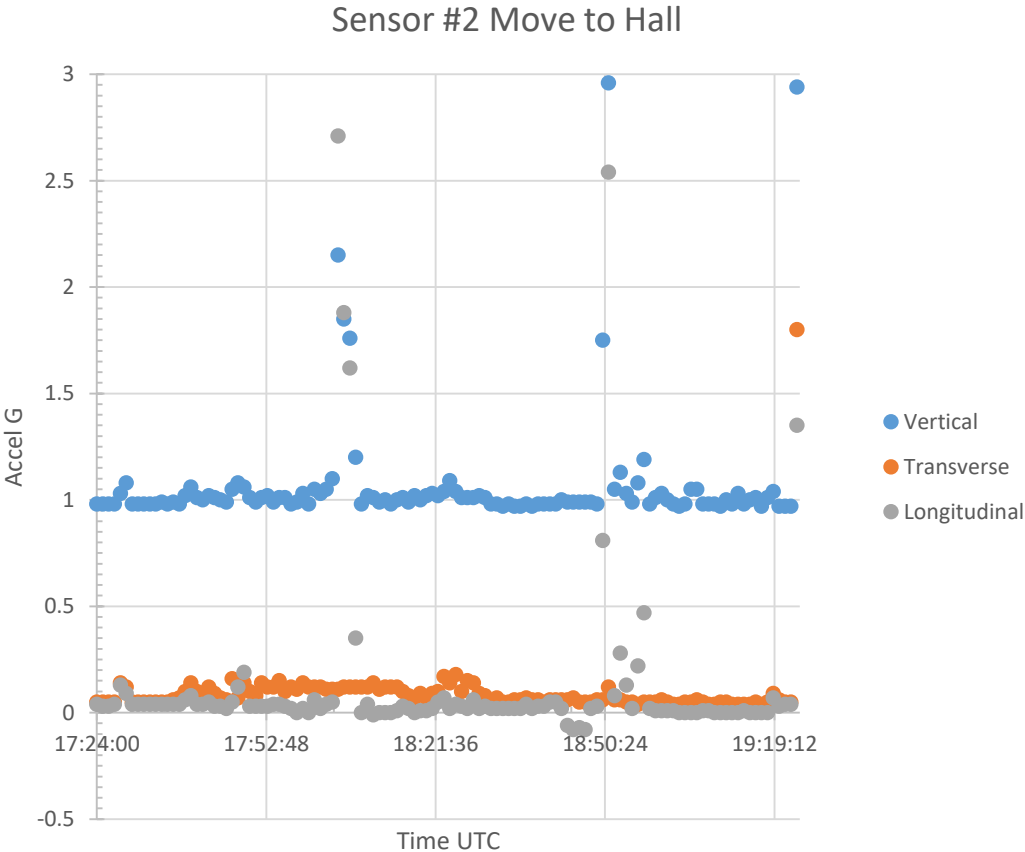
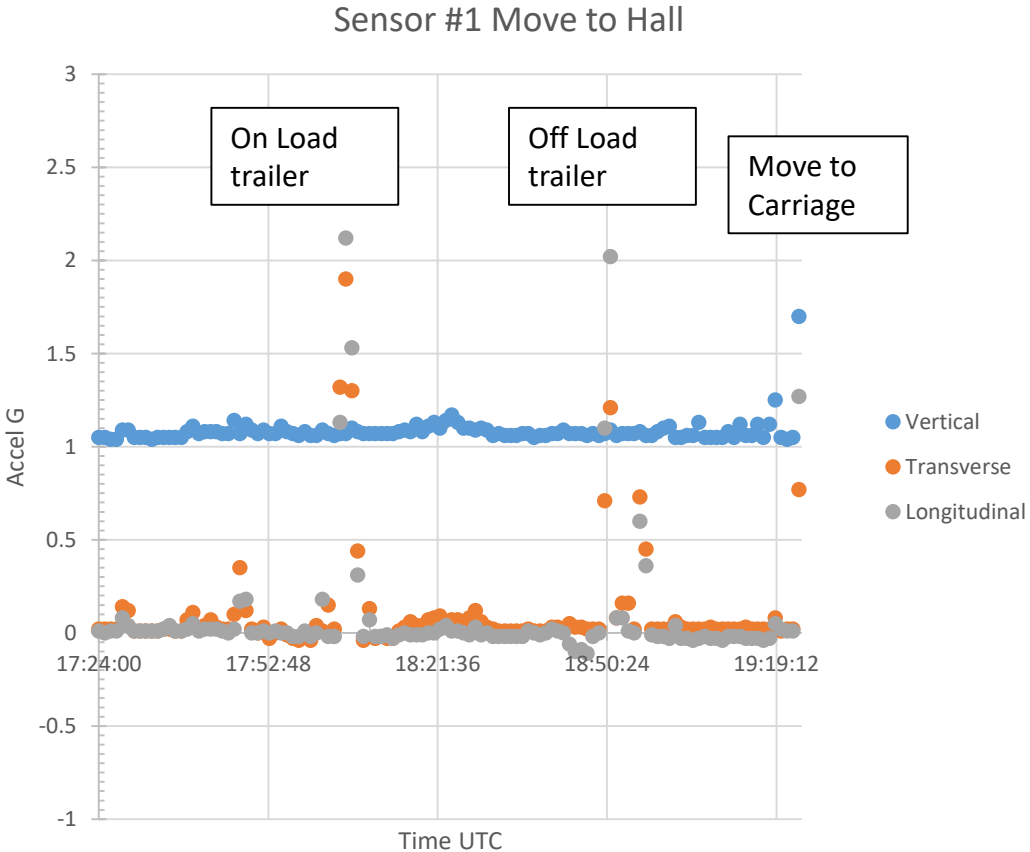
NPS Calorimeter 6/28/2024



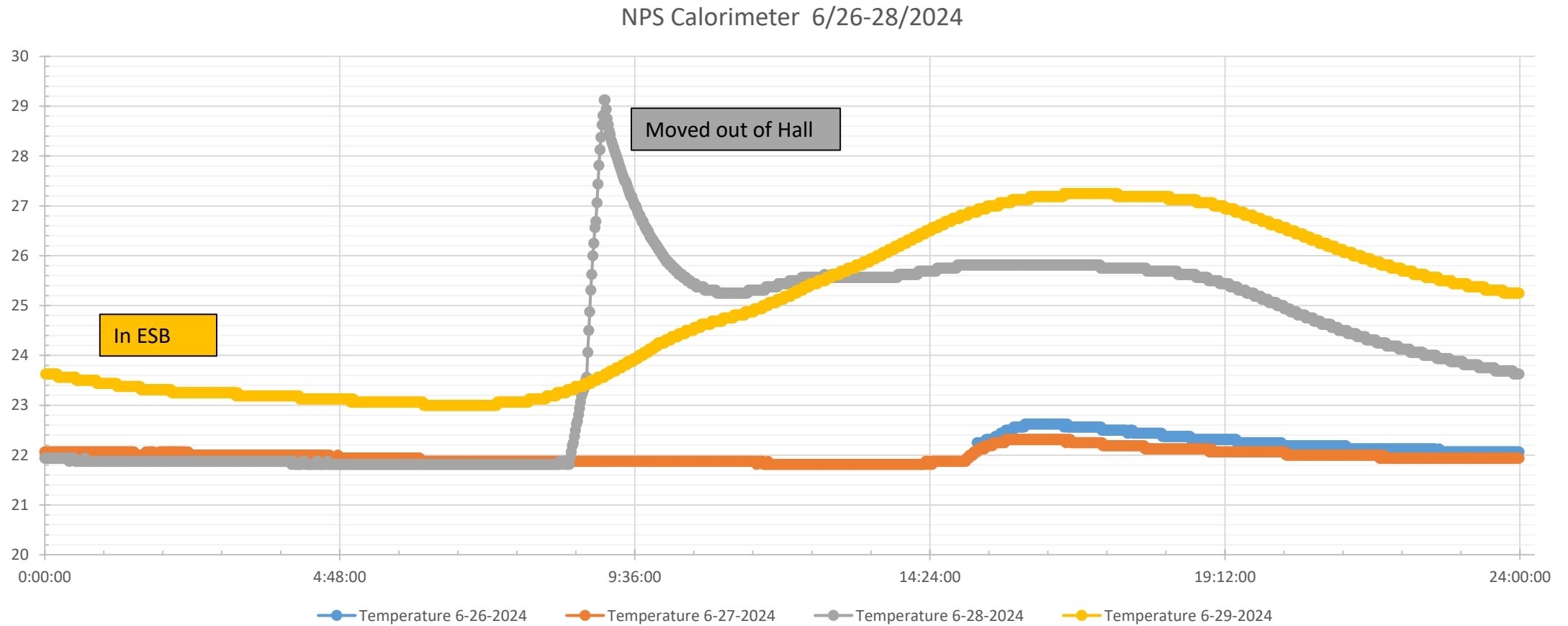
NPS Calorimeter 6/28/2024

























































Previous Data Calorimeter Moving into Hall C























Temperature cycles over four days



Current Schedule

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessor	Resource Names	Storage location	% Complete	Text10
1			NPS Removal Right Side of SHMS	86.5 days	Mon 4/22/24	Tue 8/20/24				74%	
2			Removed Lead shielding from Magnet	0.5 days	Mon 4/22/24	Mon 4/22/24		Techs	Outside	100%	
3			Power down and lock out PSUs	1 day	Mon 5/20/24	Mon 5/20/24				100%	
4			Que for Target/ beamline close work for Dose to decay	3 days	Mon 5/20/24	Wed 5/22/24				100%	
5			Warm up target from gas panel	1 day	Mon 5/20/24	Mon 5/20/24		Target group		100%	
6			Bleed up Target chamber	1 day	Thu 5/23/24	Thu 5/23/24	4	Target group		100%	
7			Survey Calorimeter at last positions	2 days	Tue 5/21/24	Wed 5/22/24		Survey Group		100%	
8			Detector removal	15 days	Mon 5/20/24	Fri 6/7/24				100%	
9			Remove Side shielding from Detector	0.5 days	Mon 5/20/24	Mon 5/20/24		Techs	64- Fabric Storage	100%	
10			Disconnect Chiller and Air cooling	1 day	Mon 5/20/24	Tue 5/21/24		Collaboration		100%	
11			Remove dog house	0.25 days	Mon 5/20/24	Mon 5/20/24		Techs		100%	
12			Disconnect 62 LED Ribbon cables at rack and Calo - add protective covers - spooled up cables-place in bins	3 days	Mon 5/20/24	Thu 5/23/24	11	Collaboration & techs		100%	
13			Holiday	1 day	Mon 5/27/24	Mon 5/27/24				100%	
14			Disconnect instrumentation cables, grounding cables, LCW hoses	1 day	Tue 5/28/24	Tue 5/28/24	13	Collaboration & techs	PSB - 2nd floor	100%	
15			Disconnect 32 HV cables at rack and Calo -add protective covers - placed in bins	2 days	Wed 5/29/24	Thu 5/30/24	14	Collaboration & techs	PSB - 2nd floor	100%	
16			Disconnect 1,100 data cables from Detector patch panel and Calo - add protective covers - placed in bins	4 days	Fri 5/31/24	Wed 6/5/24	15	Collaboration & techs	PSB - 2nd floor	100%	
17			Remove framework from top of Detector	0.5 days	Thu 6/6/24	Thu 6/6/24	16	Techs	64- Fabric Storage	100%	
18			Remove Cable CART from SHMS	0.25 days	Thu 6/6/24	Thu 6/6/24	17	Techs	ESB	100%	
19			Remove Detector (on rail section) from SHMS	0.25 days	Thu 6/6/24	Thu 6/6/24	18	Techs	In Hall	100%	
20			Prepare Detector for Open House Viewing	1 day	Fri 6/7/24	Fri 6/7/24	19	Collaboration		100%	
21			Open House Setup (2.5 days of cleaning and setup)	3 days	Wed 6/5/24	Fri 6/7/24		Techs		100%	
22			Transport cable cart out of hall	0.5 days	Mon 6/10/24	Mon 6/10/24	21	Techs	64- Fabric Storage	100%	
23			Remove Detector from hall to ESB	0.5 days	Mon 6/10/24	Mon 6/10/24	21		ESB	100%	
24			Remove vertical cable support by Q3	1 day	Mon 6/10/24	Tue 6/11/24	23	Techs	64- Fabric Storage	100%	
25			Remove Chiller and its shielding	3.75 days	Tue 5/21/24	Wed 6/12/24	24	Techs	PSB? Offsite? & 64- Lead storage	100%	
26			Holiday	2 days	Thu 7/4/24	Fri 7/5/24				100%	
27			LOTO Pause	41 days	Tue 6/11/24	Tue 8/6/24				70%	LOTO Pause
28			De-cable Downstream corrector magnet	0.5 days	Wed 8/7/24	Wed 8/7/24	27	SSG		0%	
29			Remove Downstream corrector magnet	0.5 days	Wed 8/7/24	Wed 8/7/24	28	Techs	ESB	0%	
30			Remove first section of down stream beam line	2 days	Thu 8/8/24	Fri 8/9/24	29	Techs	outside	0%	
31			Remove Upstream Beamline supports	1 day	Mon 8/12/24	Mon 8/12/24	30	Techs	64- Fabric Storage	0%	
32			Holiday	1 day	Wed 6/19/24	Wed 6/19/24				100%	
33			Sweeper Magnet removal	44.5 days	Wed 6/19/24	Tue 8/20/24	31	Techs		54%	
34			Disconnect LCW lines	0.5 days	Tue 8/13/24	Tue 8/13/24	31	Techs	PSB	0%	
35			Disconnect DC bus cables	0.5 days	Tue 8/13/24	Tue 8/13/24	34	Techs	PSB	0%	
36			Disconnect instrumentation cables	1 day	Wed 8/14/24	Wed 8/14/24	35	Techs	PSB	0%	

Current Schedule

ID		Task Mode	Task Name	Duration	Start	Finish	Predecessor	Resource Names	Storage location	% Complete	Text10
37			Unbolt magnet from pads	0.5 days	Thu 8/15/24	Thu 8/15/24	36	Techs		0%	
38	 		Crane magnet off spectrometer	1 day	Thu 8/15/24	Fri 8/16/24	37	Techs	Test Lab	0%	
39			Remove Slide plate and Magnet supports	2 days	Fri 8/16/24	Tue 8/20/24	38	Techs	64- Fabric Storage	0%	
40			Remove rails from deck platform	3 days	Wed 6/19/24	Fri 6/21/24		Techs	64- Fabric Storage	100%	
41			Remove platform stairs	1 day	Mon 6/24/24	Mon 6/24/24	40	Techs	64- Fabric Storage	100%	
42			Remove detector platform	4 days	Wed 7/24/24	Mon 7/29/24	41	Techs	64- Fabric Storage	100%	
43			Remove detector deck supports	3 days	Tue 7/30/24	Thu 8/1/24	42	Techs	64- Fabric Storage	100%	
44			Move Crates from SHMS detector Hut Electronics room	2 days	Tue 8/13/24	Wed 8/14/24	43	Techs	Hall A	0%	
45			Store spare parts and tools					Collaboration	NPS clean room & PSB	0%	

Lessons Learned

- Redesign cable to ease calorimeter movement – eliminate the needs for techs to be present.
- Back up Chiller(s)
- Specified angles and magnet settings prior.

Actions for Next Install

- Order new bolts/nuts for platform installation (threads damaged)
- Better Shielding
- Better rail blocks and alignment of rails