

2020-12-08 Detector Planning Meeting notes

Date

08 Dec 2020

Attendees

- [McKelvey, Mark E](#)
- [Philip Hart](#)
- [Kazutaka Nakahara](#)
- [Zimmerman, Kayla](#)
- Rebecca Armenta
- Conny Hansson
- Bhavna Nayak

Goals

- Set and status planning activities for detector development and deployment.

Discussion items

Time	Item	Who	Notes
10 min	Beamtime support update		<ul style="list-style-type: none">• Updates since Monday?• Baseline JF and 2M 'traveller' pages on Confluence.<ul style="list-style-type: none">◦ Collect and analyze any remaining in-lab test data.
30 min	Priorities Review	All	<ul style="list-style-type: none">• Group priorities review:<ul style="list-style-type: none">◦ Testing<ul style="list-style-type: none">▪ Setup ePix10k, ePix100, JF smalls for test in lab▪ Characterize: Noise vs. temp, response vs. bias, stitching in transition regions, charge injection, timing window vs noise, bad pixel maps, constants▪ RIXS-CCD cooler◦ Analysis<ul style="list-style-type: none">▪ Gather and process relevant commissioning data for Mp travellers on Confluence.<ul style="list-style-type: none">◦ Solid pedestals◦ Noise map◦ Response uniformity (mini-X cu-fluorescence)◦ Bootstrap gain (sealed source)◦ Linearity (signal injection)◦ Documentation<ul style="list-style-type: none">▪ Complete on-line travellers for Mp detectors◦ Development<ul style="list-style-type: none">▪ RIXS-CCD, review draft Project Plan w/NEH 2.2▪ RIXS-CCD Cooler contract mod placed. CryoTel status?▪ Anton project at UCB/SSL underway, biweekly meetings▪ SXR Downselect prep (Peter says 2/1, checking w/TID)◦ Lab 'commissioning'<ul style="list-style-type: none">▪ DAQ<ul style="list-style-type: none">• Storage nodes• LCLS I/II compatibility▪ Table seismic▪ BIO for racks in chase▪ DP node purchase <p>Actions:</p>
30 min	Status		

- New covid updates: anybody planning any travel?
- Reminder about Health Check and weekly testing.
- Case surge anticipated in January, extra absence Avoid being at lab first two weeks of Jan. One person per day?
- Focus on remote data analysis as possible.
- Tracking detectors to the same hutch by default?
- Do the right thing for everybody's benefit, including daily health check.
- lat early (Dec 14 % Dec 16). C & B, first winter closure so ask if questions
- Goal-setting exercise before winter break
- PRP ongoing (May-December 2021)
- PAM: Exit slit has been installed, moving toward ready for beam into NEH 2.2

CH:

- Conference last week, uploaded some talks
- Meeting w/Chris Iniewski, RAL folks.

RA:

- Meet re cooling concepts...met with Jim re outside space: not much.

KP: JSA summary list circulated

- XPP/MFX/XCS fibers due this week, other wise need ugly solution.
- Small Rayonix testing can be done by others.
- XPP/XCS power cable pinout (controls needs to tell us MPOD working)

KN:

- ePix100 scan for use in run18...Dilling has preferences.
- HV cables done, re-install @CXI. Matt found defect in a fiber feedthrough.
- CXI ePix ran fine in ASC over the weekend.
- Grabbing JF modules for test in lab, but need power supply board from PSI.
- IOC

PH:

- MEC deployment, can't read back data from one quad.
- Circular connectors tough to release...special tool?
- EMP shielding for in-vac cables isn't tight at connector...revise?
- UXI loC update.
- w/Bhavna & Frederic regarding commissioning data.

BN:

- Got code working, now need to let it run on some data....
- Lab visit week of thanksgiving, January moving.

Thursday updates:

PH

- UXI
- One quad at MEC had wrong event code, set in expert panel edit traveler for event codes
- Working to understand LV44 data...looks like photons are causing the 'spikes' in fourier space

KN

- Sunday MFX finishes, 2M comes off, box delivered to MFX today.
- XPP having trouble with pgp server hat runs 2M.
- CXI fiber 450uW becomes 50-60uW, defect in port feedthrough sometime limits to 2uW(?), replacement flanges on order (8-9 weeks).

CH

- Measurements on sm 10k, pedestal application inconsistent in online ami, raw data is fine.
- Still see dashed lines in pedestal config.

KP

			<ul style="list-style-type: none">Bhavna JSABIO for moveArranging setup labmove mobile rack o XPP alcove																																																																																																																																																																																																																												
5 min	Budget Update	mmck	<ul style="list-style-type: none">M&S Status (Through July) <table><thead><tr><th colspan="3"></th><th colspan="2">Values</th><th rowspan="2">Remaining Balance</th></tr><tr><th>PA Proj_Act</th><th>PA Activity_Desc</th><th>LSTM Desc</th><th>KCST BA 1.2</th><th>ACTUALS</th></tr></thead><tbody><tr><td>10918-A4001</td><td>DET Dist Exp Support</td><td>M&S</td><td>\$7</td><td>\$7</td><td>(\$0)</td></tr><tr><td>16152-A4001</td><td>ePix Support</td><td>M&S</td><td>\$105</td><td>\$107</td><td>(\$2)</td></tr><tr><td>16158-A4001</td><td>Other Detector Support</td><td>M&S</td><td>\$30</td><td>\$2</td><td>\$28</td></tr><tr><td>16287-A4001</td><td>DET Department Management</td><td>M&S</td><td>\$5</td><td>\$3</td><td>\$1</td></tr><tr><td>16826-A4001</td><td>DET Department Research</td><td>M&S</td><td>\$47</td><td>\$3</td><td>\$44</td></tr><tr><td>16159-A4001</td><td>DET Dept Infrastruct & Dev</td><td>M&S</td><td>\$112</td><td>\$101</td><td>\$11</td></tr><tr><td>17341-A4001</td><td>Detector Program Management</td><td>M&S</td><td></td><td>\$6</td><td>(\$6)</td></tr><tr><td>17439-A4001</td><td>DET Department OIP Projects</td><td>M&S</td><td>\$22</td><td></td><td>\$22</td></tr><tr><td></td><td></td><td></td><td>328</td><td>229</td><td>\$99</td></tr></tbody></table> <ul style="list-style-type: none">Labor snapshot (June actuals): <table><thead><tr><th colspan="3"></th><th colspan="2">Values</th><th rowspan="2">Remaining Balance</th></tr><tr><th>PA Proj_Act</th><th>PA Activity_Desc</th><th>LSTM Desc</th><th>KCST BA 1.2</th><th>ACTUALS</th></tr></thead><tbody><tr><td>16152-A4001</td><td>ePix Support</td><td>Shop Services</td><td>\$87</td><td>\$86</td><td>\$1</td></tr><tr><td>16152-A4001</td><td>ePix Support</td><td>SLAC Labor</td><td>\$1</td><td>\$1</td><td>(\$0)</td></tr><tr><td>16158-A4001</td><td>Other Detector Support</td><td>Shop Services</td><td>\$10</td><td>\$40</td><td>(\$30)</td></tr><tr><td>16158-A4001</td><td>Other Detector Support</td><td>SLAC Labor</td><td>\$110</td><td>\$81</td><td>\$28</td></tr><tr><td>16253-A4001</td><td>C-S PAD Support</td><td>Shop Services</td><td>\$3</td><td></td><td>\$3</td></tr><tr><td>16253-A4001</td><td>C-S PAD Support</td><td>SLAC Labor</td><td>\$0</td><td>\$0</td><td>\$0</td></tr><tr><td>18303-A4001</td><td>Jungfrau Support</td><td>Shop Services</td><td>\$3</td><td></td><td>\$3</td></tr><tr><td>16287-A4001</td><td>DET Department Management</td><td>Shop Services</td><td>\$52</td><td>\$44</td><td>\$8</td></tr><tr><td>16287-A4001</td><td>DET Department Management</td><td>SLAC Labor</td><td>\$209</td><td>\$215</td><td>(\$6)</td></tr><tr><td>16826-A4001</td><td>DET Department Research</td><td>Shop Services</td><td>\$28</td><td></td><td>\$28</td></tr><tr><td>16826-A4001</td><td>DET Department Research</td><td>SLAC Labor</td><td>\$208</td><td>\$176</td><td>\$32</td></tr><tr><td>16159-A4001</td><td>DET Dept Infrastruct & Dev</td><td>Shop Services</td><td>\$72</td><td>\$136</td><td>(\$64)</td></tr><tr><td>16159-A4001</td><td>DET Dept Infrastruct & Dev</td><td>SLAC Labor</td><td>\$164</td><td>\$169</td><td>(\$5)</td></tr><tr><td>19775-A4001</td><td>Commissioning - DET</td><td>SLAC Labor</td><td>\$23</td><td>\$7</td><td>\$16</td></tr><tr><td>17341-A4001</td><td>Detector Program Management</td><td>SLAC Labor</td><td>\$327</td><td>\$276</td><td>\$51</td></tr><tr><td>17800-A4001</td><td>Jungfrau Detectors</td><td>SLAC Labor</td><td>\$1</td><td>\$1</td><td>(\$0)</td></tr><tr><td>19453-A4001</td><td>ePixM Shingle-Tiling Concept</td><td>Shop Services</td><td>\$1</td><td>\$6</td><td>(\$5)</td></tr><tr><td>18836-A4001</td><td>L2S-I-DET - Planning</td><td>Shop Services</td><td>\$20</td><td></td><td>\$20</td></tr><tr><td>18836-A4001</td><td>L2S-I-DET - Planning</td><td>SLAC Labor</td><td>\$9</td><td></td><td>\$9</td></tr><tr><td>19733-A4001</td><td>L2S-I-DET-Project Management</td><td>SLAC Labor</td><td>\$2</td><td>\$8</td><td>(\$6)</td></tr><tr><td>19734-A4003</td><td>L2S-I-DET-RIXS CCD Procure</td><td>SLAC Labor</td><td>\$1</td><td>\$1</td><td>(\$0)</td></tr><tr><td>17439-A4001</td><td>DET Department OIP Projects</td><td>Shop Services</td><td>\$26</td><td>\$2</td><td>\$24</td></tr><tr><td>17439-A4001</td><td>DET Department OIP Projects</td><td>SLAC Labor</td><td>\$78</td><td>\$75</td><td>\$3</td></tr><tr><td></td><td></td><td></td><td>1511</td><td>1334</td><td>\$177</td></tr></tbody></table>				Values		Remaining Balance	PA Proj_Act	PA Activity_Desc	LSTM Desc	KCST BA 1.2	ACTUALS	10918-A4001	DET Dist Exp Support	M&S	\$7	\$7	(\$0)	16152-A4001	ePix Support	M&S	\$105	\$107	(\$2)	16158-A4001	Other Detector Support	M&S	\$30	\$2	\$28	16287-A4001	DET Department Management	M&S	\$5	\$3	\$1	16826-A4001	DET Department Research	M&S	\$47	\$3	\$44	16159-A4001	DET Dept Infrastruct & Dev	M&S	\$112	\$101	\$11	17341-A4001	Detector Program Management	M&S		\$6	(\$6)	17439-A4001	DET Department OIP Projects	M&S	\$22		\$22				328	229	\$99				Values		Remaining Balance	PA Proj_Act	PA Activity_Desc	LSTM Desc	KCST BA 1.2	ACTUALS	16152-A4001	ePix Support	Shop Services	\$87	\$86	\$1	16152-A4001	ePix Support	SLAC Labor	\$1	\$1	(\$0)	16158-A4001	Other Detector Support	Shop Services	\$10	\$40	(\$30)	16158-A4001	Other Detector Support	SLAC Labor	\$110	\$81	\$28	16253-A4001	C-S PAD Support	Shop Services	\$3		\$3	16253-A4001	C-S PAD Support	SLAC Labor	\$0	\$0	\$0	18303-A4001	Jungfrau Support	Shop Services	\$3		\$3	16287-A4001	DET Department Management	Shop Services	\$52	\$44	\$8	16287-A4001	DET Department Management	SLAC Labor	\$209	\$215	(\$6)	16826-A4001	DET Department Research	Shop Services	\$28		\$28	16826-A4001	DET Department Research	SLAC Labor	\$208	\$176	\$32	16159-A4001	DET Dept Infrastruct & Dev	Shop Services	\$72	\$136	(\$64)	16159-A4001	DET Dept Infrastruct & Dev	SLAC Labor	\$164	\$169	(\$5)	19775-A4001	Commissioning - DET	SLAC Labor	\$23	\$7	\$16	17341-A4001	Detector Program Management	SLAC Labor	\$327	\$276	\$51	17800-A4001	Jungfrau Detectors	SLAC Labor	\$1	\$1	(\$0)	19453-A4001	ePixM Shingle-Tiling Concept	Shop Services	\$1	\$6	(\$5)	18836-A4001	L2S-I-DET - Planning	Shop Services	\$20		\$20	18836-A4001	L2S-I-DET - Planning	SLAC Labor	\$9		\$9	19733-A4001	L2S-I-DET-Project Management	SLAC Labor	\$2	\$8	(\$6)	19734-A4003	L2S-I-DET-RIXS CCD Procure	SLAC Labor	\$1	\$1	(\$0)	17439-A4001	DET Department OIP Projects	Shop Services	\$26	\$2	\$24	17439-A4001	DET Department OIP Projects	SLAC Labor	\$78	\$75	\$3				1511	1334	\$177
			Values		Remaining Balance																																																																																																																																																																																																																										
PA Proj_Act	PA Activity_Desc	LSTM Desc	KCST BA 1.2	ACTUALS																																																																																																																																																																																																																											
10918-A4001	DET Dist Exp Support	M&S	\$7	\$7	(\$0)																																																																																																																																																																																																																										
16152-A4001	ePix Support	M&S	\$105	\$107	(\$2)																																																																																																																																																																																																																										
16158-A4001	Other Detector Support	M&S	\$30	\$2	\$28																																																																																																																																																																																																																										
16287-A4001	DET Department Management	M&S	\$5	\$3	\$1																																																																																																																																																																																																																										
16826-A4001	DET Department Research	M&S	\$47	\$3	\$44																																																																																																																																																																																																																										
16159-A4001	DET Dept Infrastruct & Dev	M&S	\$112	\$101	\$11																																																																																																																																																																																																																										
17341-A4001	Detector Program Management	M&S		\$6	(\$6)																																																																																																																																																																																																																										
17439-A4001	DET Department OIP Projects	M&S	\$22		\$22																																																																																																																																																																																																																										
			328	229	\$99																																																																																																																																																																																																																										
			Values		Remaining Balance																																																																																																																																																																																																																										
PA Proj_Act	PA Activity_Desc	LSTM Desc	KCST BA 1.2	ACTUALS																																																																																																																																																																																																																											
16152-A4001	ePix Support	Shop Services	\$87	\$86	\$1																																																																																																																																																																																																																										
16152-A4001	ePix Support	SLAC Labor	\$1	\$1	(\$0)																																																																																																																																																																																																																										
16158-A4001	Other Detector Support	Shop Services	\$10	\$40	(\$30)																																																																																																																																																																																																																										
16158-A4001	Other Detector Support	SLAC Labor	\$110	\$81	\$28																																																																																																																																																																																																																										
16253-A4001	C-S PAD Support	Shop Services	\$3		\$3																																																																																																																																																																																																																										
16253-A4001	C-S PAD Support	SLAC Labor	\$0	\$0	\$0																																																																																																																																																																																																																										
18303-A4001	Jungfrau Support	Shop Services	\$3		\$3																																																																																																																																																																																																																										
16287-A4001	DET Department Management	Shop Services	\$52	\$44	\$8																																																																																																																																																																																																																										
16287-A4001	DET Department Management	SLAC Labor	\$209	\$215	(\$6)																																																																																																																																																																																																																										
16826-A4001	DET Department Research	Shop Services	\$28		\$28																																																																																																																																																																																																																										
16826-A4001	DET Department Research	SLAC Labor	\$208	\$176	\$32																																																																																																																																																																																																																										
16159-A4001	DET Dept Infrastruct & Dev	Shop Services	\$72	\$136	(\$64)																																																																																																																																																																																																																										
16159-A4001	DET Dept Infrastruct & Dev	SLAC Labor	\$164	\$169	(\$5)																																																																																																																																																																																																																										
19775-A4001	Commissioning - DET	SLAC Labor	\$23	\$7	\$16																																																																																																																																																																																																																										
17341-A4001	Detector Program Management	SLAC Labor	\$327	\$276	\$51																																																																																																																																																																																																																										
17800-A4001	Jungfrau Detectors	SLAC Labor	\$1	\$1	(\$0)																																																																																																																																																																																																																										
19453-A4001	ePixM Shingle-Tiling Concept	Shop Services	\$1	\$6	(\$5)																																																																																																																																																																																																																										
18836-A4001	L2S-I-DET - Planning	Shop Services	\$20		\$20																																																																																																																																																																																																																										
18836-A4001	L2S-I-DET - Planning	SLAC Labor	\$9		\$9																																																																																																																																																																																																																										
19733-A4001	L2S-I-DET-Project Management	SLAC Labor	\$2	\$8	(\$6)																																																																																																																																																																																																																										
19734-A4003	L2S-I-DET-RIXS CCD Procure	SLAC Labor	\$1	\$1	(\$0)																																																																																																																																																																																																																										
17439-A4001	DET Department OIP Projects	Shop Services	\$26	\$2	\$24																																																																																																																																																																																																																										
17439-A4001	DET Department OIP Projects	SLAC Labor	\$78	\$75	\$3																																																																																																																																																																																																																										
			1511	1334	\$177																																																																																																																																																																																																																										
15 min	Review ASC First Projects	all	Coordinate/update lab schedule.																																																																																																																																																																																																																												
10 min	Any other busine ss																																																																																																																																																																																																																														

Action items: