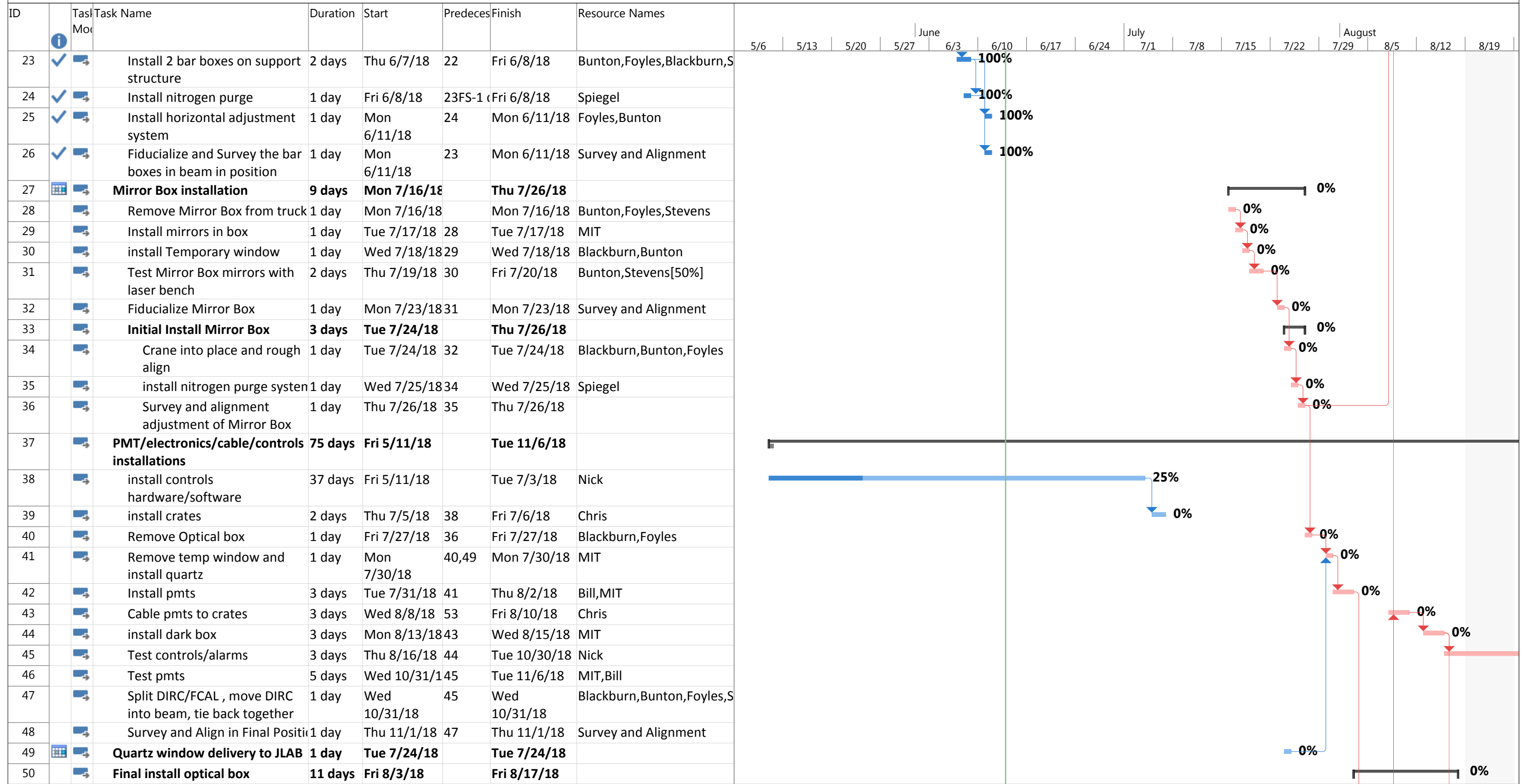


DIRC Install Schedule - late FOB

ID	Task Mod	Task Name	Duration	Start	Predecessors	Finish	Resource Names	Timeline (5/6 to 8/19)													
1		DIRC Detector - installation	75 days	Fri 5/11/18		Tue 11/6/18		[Gantt bar: 5/11/18 to 11/6/18]													
2	✓	Install Dummy DIRC Bar Box onto DIRC tower to test installation tools and procedure	3 days	Fri 5/11/18		Tue 5/15/18	Blackburn,Bunton,Foyles,S	[Gantt bar: 5/11/18 to 5/15/18, 100%]													
3	✓	Develop and test bar box horizontal adjustment	9 days	Wed 5/16/18	2	Tue 5/29/18	Foyles	[Gantt bar: 5/16/18 to 5/29/18, 100%]													
4	✓	Develop and fabricate Bar box installation clamps	7 days	Fri 5/18/18	2FS+2 days	Tue 5/29/18	Bunton	[Gantt bar: 5/18/18 to 5/29/18, 100%]													
5	✓	DIRC tower - Set up limit switches	6 days	Mon 5/14/18		Mon 5/21/18		[Gantt bar: 5/14/18 to 5/21/18, 100%]													
6	✓	DIRC tower - install 24VDC relays and power supply for limit switches	1 day	Mon 5/14/18	2FS-2 days	Mon 5/14/18	Spiegel	[Gantt bar: 5/14/18 to 5/14/18, 100%]													
7	✓	DIRC tower - install limit switch/ wires	1 day	Tue 5/15/18	6	Tue 5/15/18	Stevens	[Gantt bar: 5/15/18 to 5/15/18, 100%]													
8	✓	DIRC tower - install conduit and wires for positioning	1 day	Wed 5/16/18	7	Wed 5/16/18	Bunton,Stevens	[Gantt bar: 5/16/18 to 5/16/18, 100%]													
9	✓	Replace motor starters	1 day	Thu 5/17/18	8	Thu 5/17/18		[Gantt bar: 5/17/18 to 5/17/18, 100%]													
10	✓	Test limit switch repeatability	1 day	Thu 5/17/18	9	Fri 5/18/18	Spiegel,Stevens	[Gantt bar: 5/17/18 to 5/18/18, 100%]													
11	✓	Survey and alignment verification of limit switches and dummy bar box	1 day	Mon 5/21/18	10	Mon 5/21/18	Survey and Alignment	[Gantt bar: 5/21/18 to 5/21/18, 100%]													
12		DIRC Water System - complete plumbing procurement and installation, and P&ID (Keith)	64 days	Mon 5/14/18		Mon 8/13/18		[Gantt bar: 5/14/18 to 8/13/18, 41%]													
13	✓	DIRC Water System - install plastic tank onto downstream platform	2 days	Mon 5/14/18	2FS-2 days	Tue 5/15/18	Blackburn	[Gantt bar: 5/14/18 to 5/15/18, 100%]													
14		Install plumbing on FCAL platform	10 days	Wed 5/16/18	13	Wed 5/30/18	Blackburn	[Gantt bar: 5/16/18 to 5/30/18, 50%]													
15		Connect water skid - run and test water	1 day	Thu 5/31/18	14	Thu 5/31/18	Blackburn	[Gantt bar: 5/31/18 to 5/31/18, 75%]													
16		Connect Optical box plumbing	1 day	Wed 8/8/18	14,36,5	Wed 8/8/18		[Gantt bar: 8/8/18 to 8/8/18, 0%]													
17		DIRC water cart, bring cart signals into PLC and EPICS	2 days	Thu 8/9/18	16	Fri 8/10/18	Sandoval	[Gantt bar: 8/9/18 to 8/10/18, 0%]													
18		Leak test and system documentation	1 day	Thu 8/9/18	16	Thu 8/9/18	Blackburn,Spiegel	[Gantt bar: 8/9/18 to 8/9/18, 0%]													
19		Test Controls/alarms	2 days	Fri 8/10/18	18	Mon 8/13/18	Nick,Spiegel	[Gantt bar: 8/10/18 to 8/13/18, 0%]													
20	✓	Bar Box installation	5 days	Tue 6/5/18		Mon 6/11/18		[Gantt bar: 6/5/18 to 6/11/18, 100%]													
21	✓	Receive and unload 3 Bar boxes	1 day	Tue 6/5/18		Tue 6/5/18	Blackburn,Foyles,Bunton,S	[Gantt bar: 6/5/18 to 6/5/18, 100%]													
22	✓	Put 1 bar box on storage rack and hook up nitrogen	1 day	Wed 6/6/18	21	Wed 6/6/18	Blackburn,Foyles,Bunton,S	[Gantt bar: 6/6/18 to 6/6/18, 100%]													

Critical		Split		Finish-only		Baseline Milestone		Manual Summary		Inactive Task	
Critical Split		Task Progress		Duration-only		Milestone		Project Summary		Inactive Milestone	
Critical Progress		Manual Task		Baseline		Summary Progress		External Tasks		Inactive Summary	
Task		Start-only		Baseline Split		Summary		External Milestone		Deadline	

DIRC Install Schedule - late FOB



Critical		Split		Finish-only		Baseline Milestone		Manual Summary		Inactive Task	
Critical Split		Task Progress		Duration-only		Milestone		Project Summary		Inactive Milestone	
Critical Progress		Manual Task		Baseline		Summary Progress		External Tasks		Inactive Summary	
Task		Start-only		Baseline Split		Summary		External Milestone		Deadline	

DIRC Install Schedule - late FOB

ID	Task Mod	Task Name	Duration	Start	Predecessors	Finish	Resource Names	Gantt Chart (June to August)													
51	→	Crane into place and rough align	1 day	Fri 8/3/18	42	Fri 8/3/18	Blackburn,Bunton,Foyles	[Gantt bar for Task 51: 8/3/18 to 8/3/18]													
52	→	install nitrogen purge system	1 day	Mon 8/6/18	51	Mon 8/6/18	Spiegel	[Gantt bar for Task 52: 8/6/18 to 8/6/18]													
53	→	Survey and alignment adjustment of Mirror Box	1 day	Tue 8/7/18	52	Tue 8/7/18	Survey and Alignment	[Gantt bar for Task 53: 8/7/18 to 8/7/18]													
54	→	Connect FCAL and DIRC Supports and move in position	1 day	Thu 8/16/18	44	Thu 8/16/18	Blackburn,Bunton,Foyles,S	[Gantt bar for Task 54: 8/16/18 to 8/16/18]													
55	→	Survey and Align in Final Position	1 day	Fri 8/17/18	54	Fri 8/17/18	Survey and Alignment	[Gantt bar for Task 55: 8/17/18 to 8/17/18]													
56	→	Installation Complete	0 days	Tue 11/6/18	55,48,4	Tue 11/6/18		[Gantt bar for Task 56: 11/6/18 to 11/6/18]													

Critical		Split		Finish-only		Baseline Milestone		Manual Summary		Inactive Task	
Critical Split		Task Progress		Duration-only		Milestone		Project Summary		Inactive Milestone	
Critical Progress		Manual Task		Baseline		Summary Progress		External Tasks		Inactive Summary	
Task		Start-only		Baseline Split		Summary		External Milestone		Deadline	