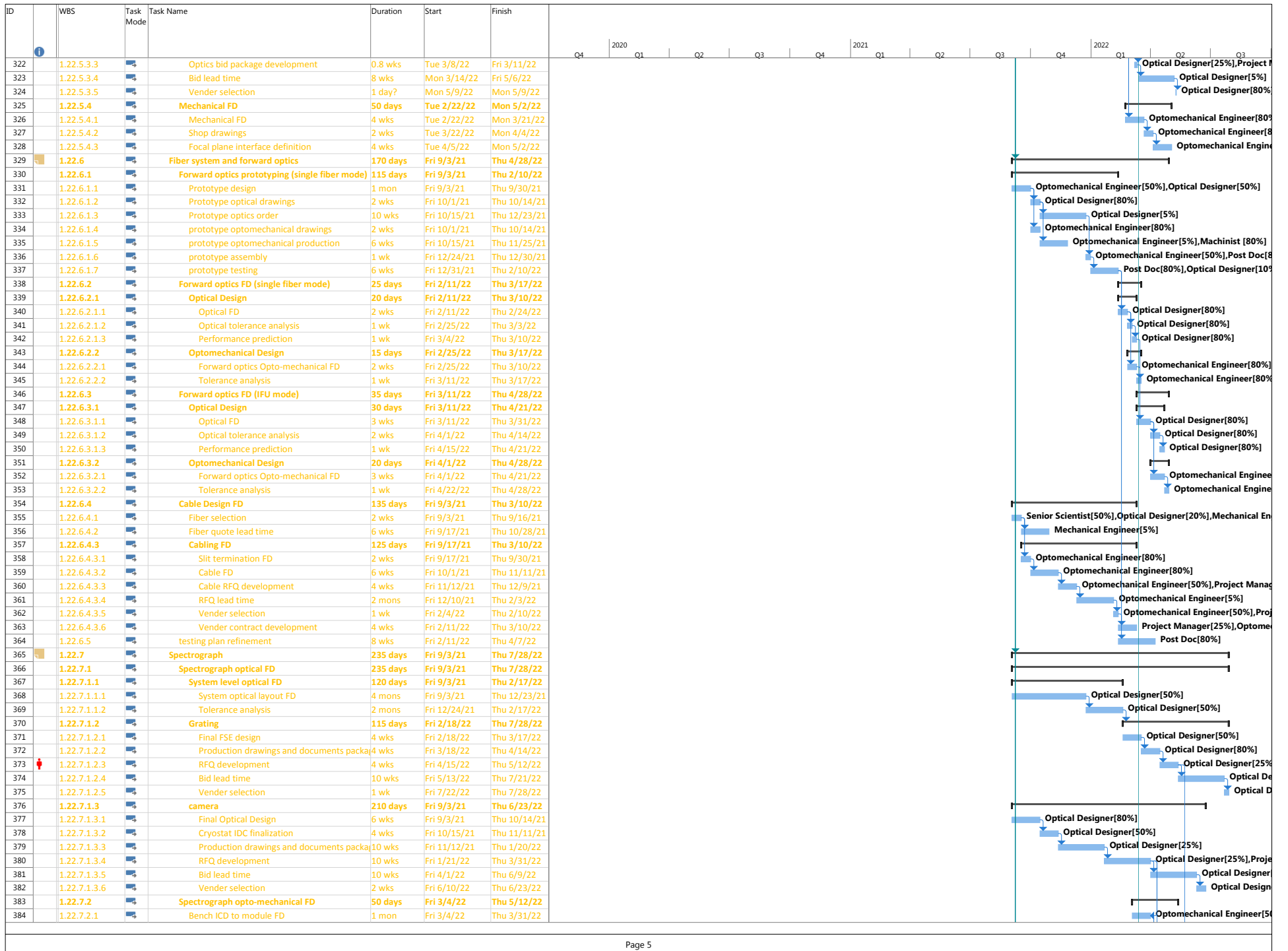
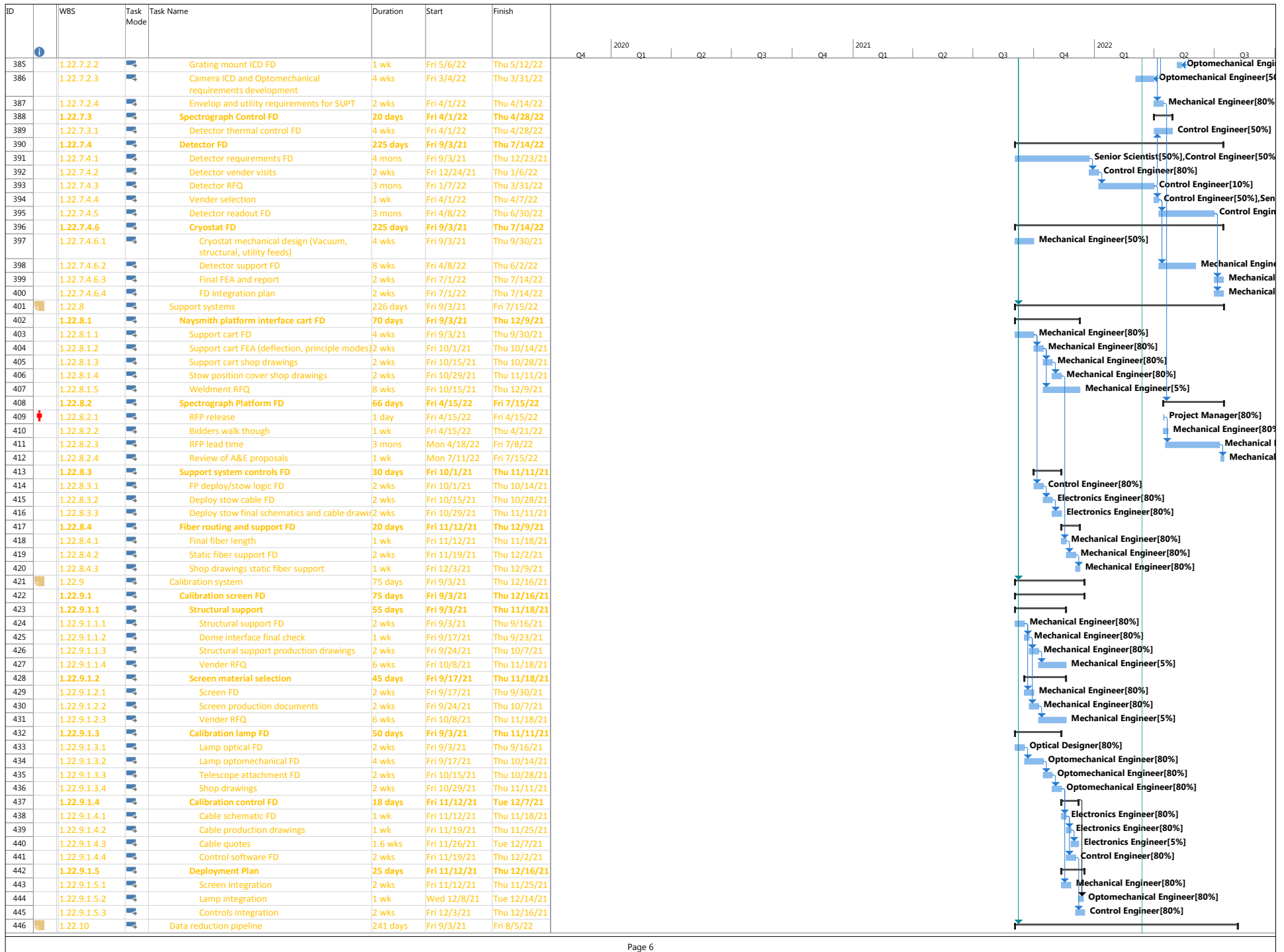


ID		WBS	Task Mode	Task Name	Duration	Start	Finish												
260		1.21.13.2		FOBOS commissioning plan Draft 1	1 mon	Fri 5/29/20	Thu 6/25/20												
261		1.21.13.3		Commissioning acceptance matrix Draft 1	0.05 mons	Fri 6/26/20	Fri 6/26/20												
262																			
263		1.22		Final Design One	243 days?	Wed 9/1/21	Fri 8/5/22												
264		1.22.1		Central Project Level Management	241 days	Fri 9/3/21	Fri 8/5/22												
265		1.22.1.1		Principle Investigator	241 days	Fri 9/3/21	Fri 8/5/22												
266		1.22.1.2		Project Management	241 days	Fri 9/3/21	Fri 8/5/22												
267		1.22.1.3		Systems Engineering		Fri 9/3/21													
268		1.22.1.3.1		Work package IDC development	8 wks	Fri 9/3/21	Thu 10/28/21												
269		1.22.1.3.2		Risk analysis	8 wks	Fri 6/10/22	Thu 8/4/22												
270		1.22.1.3.3		Requirements flow down	8 wks	Fri 6/10/22	Thu 8/4/22												
271		1.22.1.4		Team meetings (leads meetings 2/year)	241 days	Fri 9/3/21	Fri 8/5/22												
272		1.22.1.5		Weekly meetings	241 days	Fri 9/3/21	Fri 8/5/22												
273		1.22.1.6		FDR-1 review prep	2 mons	Fri 6/10/22	Thu 8/4/22												
274		1.22.2		Atmospheric Dispersion corrector	240 days	Fri 9/3/21	Fri 8/5/22												
275		1.22.2.1		Optical Design	120 days	Fri 9/3/21	Thu 2/17/22												
276		1.22.2.1.1		Final Optical ADC design	8 wks	Fri 9/3/21	Thu 10/28/21												
277		1.22.2.1.2		Develop drawings and specifications for optics	2 wks	Fri 10/29/21	Thu 11/11/21												
278		1.22.2.1.3		Development of RFQ's for prism construction	4 wks	Fri 11/12/21	Thu 12/9/21												
279		1.22.2.1.4		Release RFQ's to vendors	0 days	Thu 12/9/21	Thu 12/9/21												
280		1.22.2.1.5		Competitive bid (Materials)	10 wks	Fri 12/10/21	Thu 2/17/22												
281		1.22.2.1.6		Competitive bid (polishing)	10 wks	Fri 12/10/21	Thu 2/17/22												
282		1.22.2.1.7		Competitive bid (coating)	10 wks	Fri 12/10/21	Thu 2/17/22												
283		1.22.2.1.8		Vender Selection	0 days	Thu 2/17/22	Thu 2/17/22												
284		1.22.2.2		Software/Controls Design	69 days	Mon 5/2/22	Fri 8/5/22												
285		1.22.2.2.1		Prototype software (simulated load)	2 mons	Mon 5/2/22	Fri 6/24/22												
286		1.22.2.2.2		Key word development	1 mon	Fri 7/8/22	Fri 8/5/22												
287		1.22.2.3		Mechanical Design	190 days	Fri 11/12/21	Thu 8/4/22												
288		1.22.2.3.1		Optical Cell Design	190 days	Fri 11/12/21	Thu 8/4/22												
289		1.22.2.3.1.1		Mechanical Lens mount detailed design	12 wks	Fri 11/12/21	Thu 2/3/22												
290		1.22.2.3.1.2		Final FEA of lens cells and documentation	5 wks	Fri 2/4/22	Thu 3/10/22												
291		1.22.2.3.1.3		Set acceleration limits for optics (operations and seismic)	2 wks	Fri 3/11/22	Thu 3/24/22												
292		1.22.2.3.1.4		Lens Cell and related components production drawings	3 wks	Fri 3/25/22	Thu 4/14/22												
293		1.22.2.3.1.5		Develop RFQ for lens cell fab	4 wks	Fri 4/15/22	Thu 5/12/22												
294		1.22.2.3.1.6		Release RFQ for lens cell manufacturing	0 days	Thu 5/12/22	Thu 5/12/22												
295		1.22.2.3.1.7		Bid lead time	10 wks	Fri 5/13/22	Thu 7/21/22												
296		1.22.2.3.1.8		Vender selection	2 wks	Fri 7/22/22	Thu 8/4/22												
297		1.22.3		Field rotation and translation system	210 days	Fri 10/1/21	Thu 7/21/22												
298		1.22.3.1		Software/controls FD	40 days	Fri 5/27/22	Thu 7/21/22												
299		1.22.3.1.1		Prototype software (simulated load)	2 mons	Fri 5/27/22	Thu 7/21/22												
300		1.22.3.1.2		key word development	1 mon	Wed 6/1/22	Tue 6/28/22												
301		1.22.3.2		Field Rotator Mechanical FD	55 days	Fri 2/4/22	Thu 4/21/22												
302		1.22.3.2.1		Detailed design of mechanism	6 wks	Fri 2/4/22	Thu 3/17/22												
303		1.22.3.2.2		Shop drawings	3 wks	Fri 3/18/22	Thu 4/7/22												
304		1.22.3.2.3		Flexure estimates	2 wks	Fri 4/8/22	Thu 4/21/22												
305		1.22.3.3		Field Tilt Mechanical FD	70 days	Fri 10/29/21	Thu 2/3/22												
306		1.22.3.3.1		Hexapod RFQ development	4 wks	Fri 10/29/21	Thu 11/25/21												
307		1.22.3.3.2		RFQ lead time	10 wks	Fri 11/26/21	Thu 2/3/22												
308		1.22.3.4		Focal plane interface FD	30 days	Fri 10/1/21	Thu 11/11/21												
309		1.22.3.4.1		Focal plane interface FD	4 wks	Fri 10/1/21	Thu 10/28/21												
310		1.22.3.4.2		Focal plane interface Shop drawings	2 wks	Fri 10/29/21	Thu 11/11/21												
311		1.22.3.5		Telescope interface FD	25 days	Fri 4/22/22	Thu 5/26/22												
312		1.22.3.5.1		FPM to SUPT FD	4 wks	Fri 4/22/22	Thu 5/19/22												
313		1.22.3.5.2		Shop drawings	1 wk	Fri 5/20/22	Thu 5/26/22												
314		1.22.4		Robotic focal plane and associated development	241 days	Fri 9/3/21	Fri 8/5/22												
315		1.22.4.1		Robotic focal plane development contract	241 days	Fri 9/3/21	Fri 8/5/22												
316		1.22.5		Guiding/acquisition system and wave front sensin	70 days?	Tue 2/1/22	Mon 5/9/22												
317		1.22.5.1		Software/Controls FD	2 mons	Tue 3/1/22	Mon 4/25/22												
318		1.22.5.2		Cabling schematics and ele FD	2 mons	Tue 3/1/22	Mon 4/25/22												
319		1.22.5.3		Optical FD	70 days?	Tue 2/1/22	Mon 5/9/22												
320		1.22.5.3.1		Optics FD	3 wks	Tue 2/1/22	Mon 2/21/22												
321		1.22.5.3.2		Production drawings	2 wks	Tue 2/22/22	Mon 3/7/22												

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ID		WBS	Task Mode	Task Name	Duration	Start	Finish												
								Q4	2020	Q1	Q2	Q3	Q4	2021	Q1	Q2	Q3	Q4	2022
447		1.22.10.1		Data Lead (design choice support)	241 days	Fri 9/3/21	Fri 8/5/22												
448		1.22.11		System integration and test	140 days	Wed 9/1/21	Tue 3/15/22												
449		1.22.11.1		Facility upgrade requirements	3 mons	Wed 9/1/21	Tue 11/23/21												
450		1.22.11.2		Back end final integration plan	2 mons	Wed 11/24/21	Tue 1/18/22												
451		1.22.11.3		Front end final integration plan	2 mons	Wed 1/19/22	Tue 3/15/22												
452		1.22.12		System deployment and commissioning	80 days	Wed 3/16/22	Tue 7/5/22												
453		1.22.12.1		Keck integration plan FD	2 mons	Wed 3/16/22	Tue 5/10/22												
454		1.22.12.2		FOBOS Commissioning plan FD	1 mon	Wed 5/11/22	Tue 6/7/22												
455		1.22.12.3		Commissioning acceptance matrix FD	1 mon	Wed 6/8/22	Tue 7/5/22												
456																			

