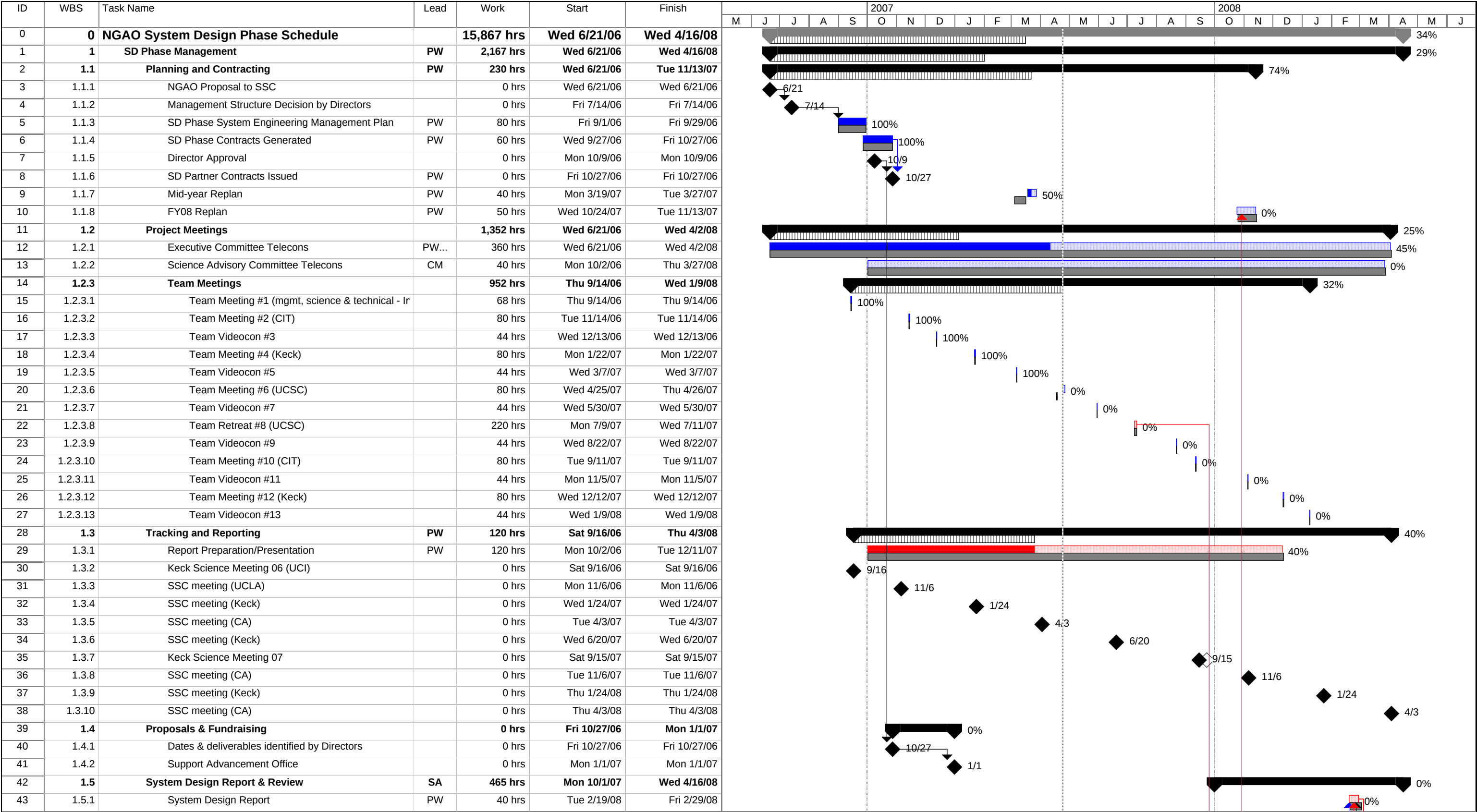
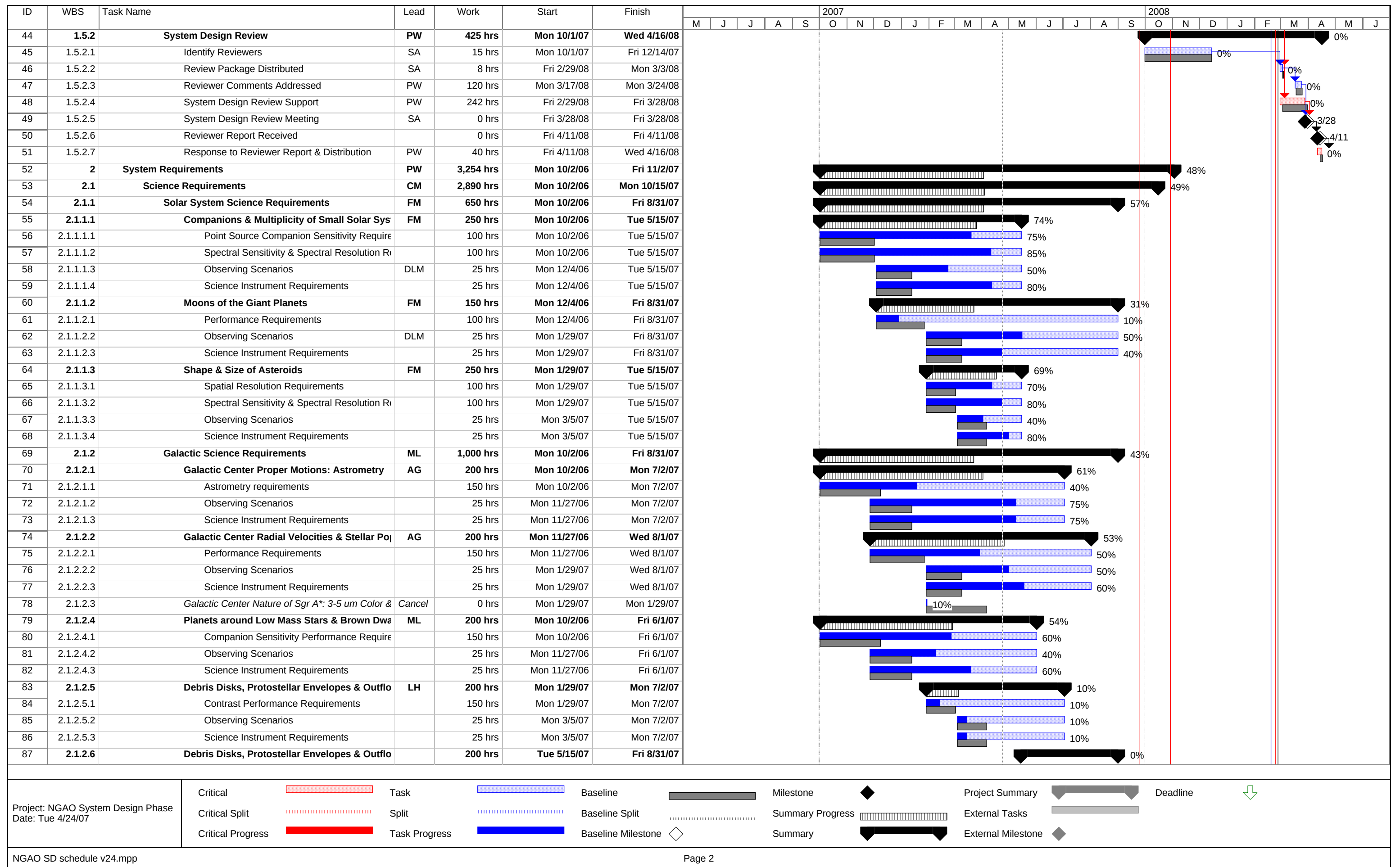






ID	WBS	Task Name	Lead	Work	Start	Finish	2007											2008										
							M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
88	2.1.2.6.1	Polarimetry Performance Requirements		150 hrs	Tue 5/15/07	Fri 8/31/07																						
89	2.1.2.6.2	Observing Scenarios		25 hrs	Tue 5/15/07	Fri 8/31/07																						
90	2.1.2.6.3	Science Instrument Requirements		25 hrs	Tue 5/15/07	Fri 8/31/07																						
91	2.1.3	Extragalactic Science Requirements	CM	1,000 hrs	Mon 10/2/06	Mon 10/1/07																						
92	2.1.3.1	Resolved Stellar Populations in Crowded Fiel		300 hrs	Mon 10/2/06	Mon 10/1/07																						
93	2.1.3.1.1	Performance Requirements		250 hrs	Mon 10/2/06	Mon 10/1/07																						
94	2.1.3.1.2	Observing Scenarios		25 hrs	Mon 12/11/06	Mon 10/1/07																						
95	2.1.3.1.3	Science Instrument Requirements		25 hrs	Mon 12/11/06	Mon 10/1/07																						
96	2.1.3.2	High Redshift Galaxies		300 hrs	Mon 10/2/06	Fri 6/1/07																						
97	2.1.3.2.1	Encircled Energy (& d-IFU) Performance Re		200 hrs	Mon 10/2/06	Fri 6/1/07																						
98	2.1.3.2.2	Observing Scenarios		50 hrs	Mon 12/11/06	Fri 6/1/07																						
99	2.1.3.2.3	Science Instrument Requirements		50 hrs	Mon 12/11/06	Fri 6/1/07																						
100	2.1.3.3	Nearby Galaxies		200 hrs	Mon 12/11/06	Fri 8/31/07																						
101	2.1.3.3.1	Encircled Energy & PSF Performance Requ		150 hrs	Mon 12/11/06	Fri 8/31/07																						
102	2.1.3.3.2	Observing Scenarios		25 hrs	Mon 3/5/07	Fri 8/31/07																						
103	2.1.3.3.3	Science Instrument Requirements		25 hrs	Mon 3/5/07	Fri 8/31/07																						
104	2.1.3.4	Gravitational Lensing		200 hrs	Mon 12/11/06	Mon 7/2/07																						
105	2.1.3.4.1	Encircled Energy & PSF Performance Requ		150 hrs	Mon 12/11/06	Mon 7/2/07																						
106	2.1.3.4.2	Observing Scenarios		25 hrs	Mon 3/5/07	Mon 7/2/07																						
107	2.1.3.4.3	Science Instrument Requirements		25 hrs	Mon 3/5/07	Mon 7/2/07																						
108	2.1.4	Science Case Requirements Document	CM	240 hrs	Mon 10/2/06	Mon 10/15/07																						
109	2.1.4.1	Science Case Requirements Doc Rev 1		40 hrs	Mon 10/2/06	Thu 10/19/06																						
110	2.1.4.2	Science Case Requirements Doc Rev 2		120 hrs	Mon 4/2/07	Fri 6/1/07																						
111	2.1.4.3	Science Case Requirements Doc Rev 3		40 hrs	Tue 6/5/07	Mon 7/9/07																						
112	2.1.4.4	Science Case Requirements Doc Final		40 hrs	Wed 9/26/07	Mon 10/15/07																						
113	2.2	Observatory Requirements	CN	224 hrs	Mon 10/2/06	Fri 9/7/07																						
114	2.2.1	Development Requirements	CN	16 hrs	Mon 10/2/06	Fri 11/24/06																						
115	2.2.2	Observatory Interface Requirements	CN	24 hrs	Mon 10/2/06	Fri 10/27/06																						
116	2.2.3	Science Operations Requirements	DLM	64 hrs	Mon 10/2/06	Fri 11/24/06																						
117	2.2.4	Observatory Requirements Rev 2	PW	80 hrs	Mon 1/22/07	Fri 2/9/07																						
118	2.2.5	Observatory Requirements Rev 3	CN	20 hrs	Mon 4/9/07	Fri 5/18/07																						
119	2.2.6	Observatory Requirements Rev 4	CN	20 hrs	Mon 7/16/07	Fri 9/7/07																						
120	2.3	System Requirements Document		140 hrs	Mon 10/9/06	Fri 11/2/07																						
121	2.3.1	Traceability Matrix	CN	60 hrs	Mon 10/9/06	Sat 10/20/07																						
122	2.3.1.1	Traceability Matrix Rev 1	CN	10 hrs	Mon 10/9/06	Fri 10/20/06																						
123	2.3.1.2	Traceability Matrix Rev 2	PW	10 hrs	Mon 2/12/07	Tue 2/27/07																						
124	2.3.1.3	Traceability Matrix Rev 3	CN	20 hrs	Fri 6/15/07	Thu 6/28/07																						
125	2.3.1.4	Traceability Matrix Rev 4	CN	20 hrs	Tue 10/9/07	Sat 10/20/07																						
126	2.3.2	System Requirements Document	PW	80 hrs	Mon 11/27/06	Fri 11/2/07																						
127	2.3.2.1	SRD Rev 1	PW	20 hrs	Mon 11/27/06	Fri 12/8/06																						
128	2.3.2.2	SRD Rev 2	PW	20 hrs	Mon 4/16/07	Tue 5/15/07																						
129	2.3.2.3	SRD Rev 3	PW	20 hrs	Tue 7/17/07	Mon 7/30/07																						
130	2.3.2.4	SRD Final SD Phase Version	PW	20 hrs	Mon 10/22/07	Fri 11/2/07																						
131	3	System Design	PW	9,306 hrs	Mon 8/14/06	Fri 3/21/08																						

Project: NGAO System Design Phase Date: Tue 4/24/07	Critical		Task		Baseline		Milestone		Project Summary		Deadline	
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ID	WBS	Task Name	Lead	Work	Start	Finish						2007										2008									
							M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
176	3.1.2.1.5	Keck Interferometer Support TS (m5)	CN	120 hrs	Mon 10/16/06	Fri 3/2/07																									
177	3.1.2.1.6	Instrument Balance TS	Cancel	1 hr	Mon 11/13/06	Tue 11/14/06																									
178	3.1.2.1.7	GLAO for non-NGAO Instruments TS (m5)	RF	20 hrs	Mon 2/5/07	Fri 3/2/07																									
179	3.1.2.1.8	Science Instrument Re-use Cost/Benefit TS	AM	120 hrs	Mon 11/13/06	Fri 5/18/07																									
180	3.1.2.1.9	Telescope Wavefront Errors TS	CN	80 hrs	Mon 12/4/06	Wed 12/20/06																									
181	3.1.2.1.10	Observing Model TS	DLM	80 hrs	Mon 11/13/06	Fri 5/4/07																									
182	3.1.2.2	Adaptive Optics System Trade Studies		438 hrs	Mon 10/30/06	Mon 4/23/07																									
183	3.1.2.2.1	AO Enclosure Temperature TS (m6)	Cancel	1 hr	Tue 1/2/07	Wed 1/3/07																									
184	3.1.2.2.2	Optical Relay TS (m6)	RD	60 hrs	Tue 1/2/07	Fri 4/13/07																									
185	3.1.2.2.3	Field Rotation Strategy TS (m6)	RD	60 hrs	Tue 1/2/07	Fri 4/13/07																									
186	3.1.2.2.4	Dichroics & Beamsplitters TS (m6)	Cancel	1 hr	Tue 1/2/07	Wed 1/3/07																									
187	3.1.2.2.5	Rayleigh Rejection TS (m3)	VV	40 hrs	Mon 10/30/06	Fri 12/8/06																									
188	3.1.2.2.6	LGS WFS Type TS (m4)	VV	30 hrs	Mon 12/4/06	Fri 1/19/07																									
189	3.1.2.2.7	LGS WFS number of subapertures TS (m4)	VV	20 hrs	Mon 12/4/06	Fri 1/19/07																									
190	3.1.2.2.8	Slow WFS TS (m7)	Cancel	1 hr	Mon 4/23/07	Mon 4/23/07																									
191	3.1.2.2.9	LOWFS Architecture TS	RF	160 hrs	Mon 12/4/06	Fri 2/9/07																									
192	3.1.2.2.10	Number & Type of LOWFS TS (m4)	RC	60 hrs	Mon 12/4/06	Fri 1/26/07																									
193	3.1.2.2.11	Centroid Anisoplanatism TS (m7)	Cancel	1 hr	Mon 4/23/07	Mon 4/23/07																									
194	3.1.2.2.12	Deformable Mirror Stroke Requirement TS (m6)	Cancel	1 hr	Tue 1/2/07	Wed 1/3/07																									
195	3.1.2.2.13	Stand-alone vs DM on T/T Stage TS (m3)	Cancel	1 hr	Mon 10/30/06	Mon 10/30/06																									
196	3.1.2.2.14	Correcting Fast T/T with DM TS	Cancel	1 hr	Fri 12/8/06	Fri 12/8/06																									
197	3.1.2.2.15	Focus Compensation TS (m6)	Cancel	1 hr	Mon 1/22/07	Wed 1/24/07																									
198	3.1.2.3	Laser Facility Trade Studies		142 hrs	Mon 10/16/06	Fri 6/1/07																									
199	3.1.2.3.1	Laser Pulse Format TS (m6)	Cancel	1 hr	Tue 1/2/07	Tue 1/2/07																									
200	3.1.2.3.2	Free Space vs Fiber TS (m7)	Cancel	1 hr	Tue 1/30/07	Tue 1/30/07																									
201	3.1.2.3.3	LGS Asterism Geometry & Size TS (m2)	RF	20 hrs	Mon 10/23/06	Fri 10/27/06																									
202	3.1.2.3.4	Variable vs fixed LGS Asterism Cost/Benefit	VV	20 hrs	Mon 10/16/06	Fri 10/27/06																									
203	3.1.2.3.5	Uplink compensation	DG	100 hrs	Mon 4/30/07	Fri 6/1/07																									
204	3.1.3	System Architecture	RD	1,952 hrs	Tue 5/8/07	Fri 2/1/08																									
205	3.1.3.1	Candidate Subsystems	RD	510 hrs	Thu 5/10/07	Wed 7/4/07																									
206	3.1.3.1.1	Define Candidate Subsystems	RD	260 hrs	Thu 5/10/07	Thu 5/31/07																									
207	3.1.3.1.2	Subsystems Performance Evaluation	RD	70 hrs	Fri 6/1/07	Fri 6/22/07																									
208	3.1.3.1.3	Subsystems Cost Evaluation	DG	70 hrs	Fri 6/1/07	Fri 6/22/07																									
209	3.1.3.1.4	Subsystems Risk Evaluation	CN	40 hrs	Fri 6/1/07	Fri 6/22/07																									
210	3.1.3.1.5	Organize Candidate Subsystems	RD	70 hrs	Mon 6/25/07	Wed 7/4/07																									
211	3.1.3.2	Candidate Architectures	RD	905 hrs	Wed 7/4/07	Fri 12/28/07																									
212	3.1.3.2.1	Define Candidate Architectures	RD	280 hrs	Wed 7/4/07	Fri 7/20/07																									
213	3.1.3.2.2	Architectures Performance Evaluation	RD	100 hrs	Fri 7/20/07	Fri 7/27/07																									
214	3.1.3.2.3	Architectures Cost Evaluation	DG	240 hrs	Fri 7/20/07	Wed 8/8/07																									
215	3.1.3.2.4	Architectures Risk Evaluation	CN	40 hrs	Fri 7/20/07	Wed 7/25/07																									
216	3.1.3.2.5	Adopt Baseline Architecture(s)	RD	75 hrs	Wed 8/8/07	Wed 8/22/07																									
217	3.1.3.2.6	System Architecture ver 1	RD	100 hrs	Wed 8/22/07	Wed 9/12/07																									
218	3.1.3.2.7	System Architecture ver 2	RD	70 hrs	Tue 12/18/07	Fri 12/28/07																									
219	3.1.3.3	Functional Requirements	PW	477 hrs	Tue 5/8/07	Fri 2/1/08																									

Project: NGAO System Design Phase Date: Tue 4/24/07	Critical		Task		Baseline		Milestone		Project Summary		Deadline	
	Critical Split		Split		Baseline Split		Summary Progress		External Tasks			
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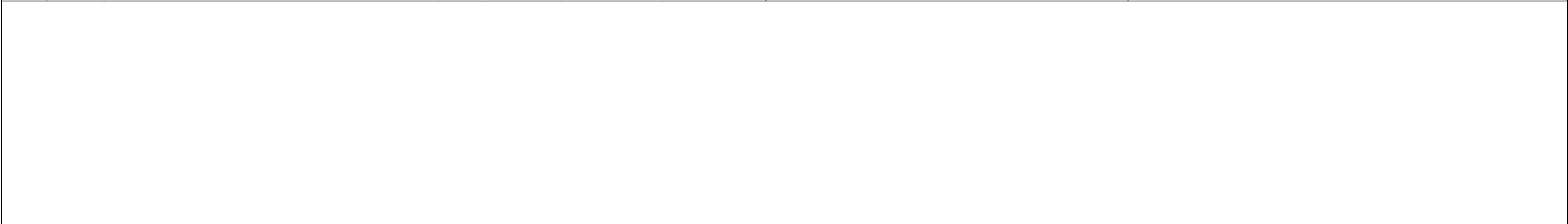
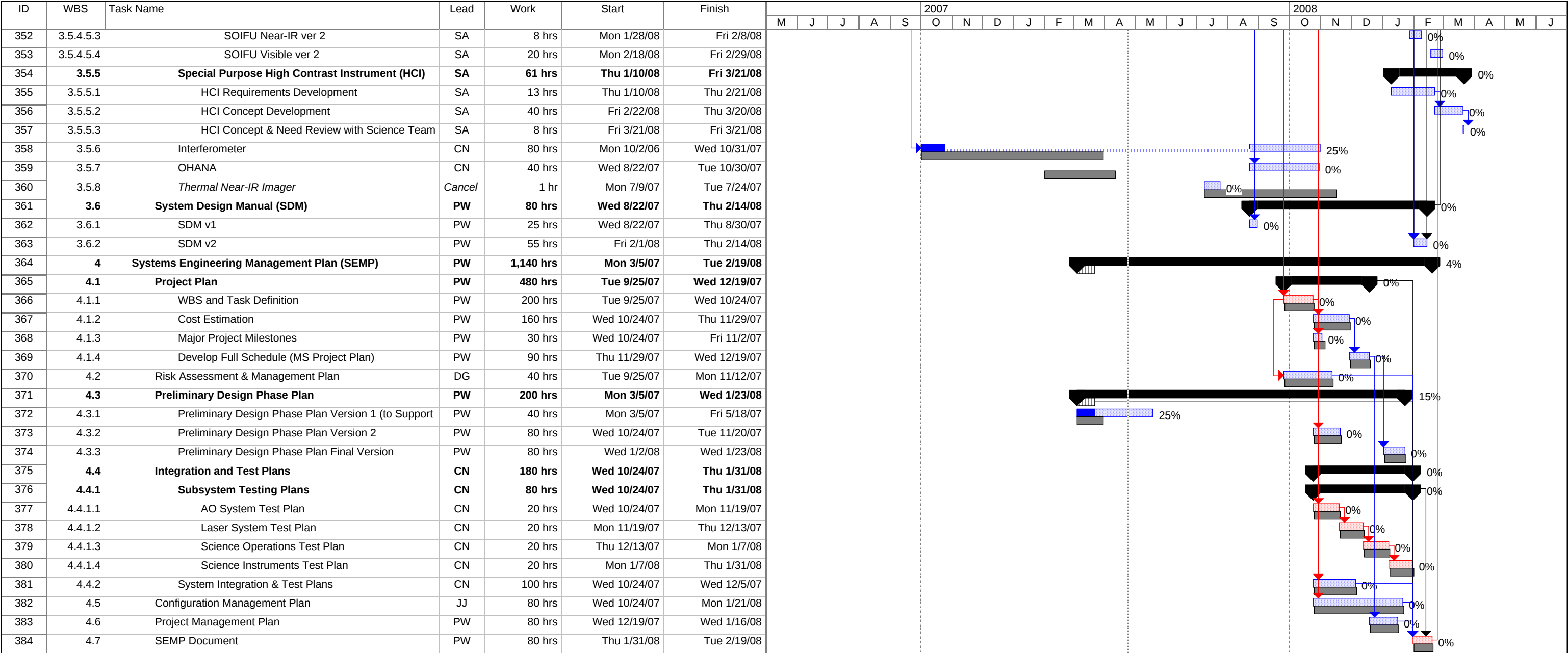
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220	3.1.3.3.1	Draft Functional Requirements Document	PW	20 hrs	Tue 5/22/07	Thu 5/31/07
221	3.1.3.3.2	AO System Functional Requirements Ver 1	CN	145 hrs	Mon 8/6/07	Wed 8/29/07
222	3.1.3.3.3	AO System Functional Requirements Ver 2	CN	50 hrs	Fri 12/28/07	Wed 1/16/08
223	3.1.3.3.4	Laser System Functional Requirements Ver	JC	110 hrs	Wed 7/4/07	Wed 8/1/07
224	3.1.3.3.5	Laser System Functional Requirements Ver	JC	36 hrs	Fri 12/28/07	Fri 1/25/08
225	3.1.3.3.6	Science Operations Functional Requirement	DLM	50 hrs	Wed 7/4/07	Tue 8/7/07
226	3.1.3.3.7	Science Operations Functional Requirement	DLM	50 hrs	Fri 12/28/07	Fri 2/1/08
227	3.1.3.3.8	Science Instruments Function Allocation Ver	SA	8 hrs	Tue 5/8/07	Thu 5/31/07
228	3.1.3.3.9	Science Instruments Function Allocation Ver	SA	8 hrs	Mon 1/14/08	Thu 1/17/08
229	3.1.3.4	Technology Drivers Summary	DG	10 hrs	Tue 10/23/07	Thu 10/25/07
230	3.1.3.5	Technical Risk Analysis Ver 1	CN	10 hrs	Mon 8/27/07	Fri 9/14/07
231	3.1.3.6	Technical Risk Analysis Ver 2	CN	40 hrs	Fri 12/28/07	Fri 1/25/08
232	3.2	AO System	DG	1,714 hrs	Mon 6/18/07	Tue 12/18/07
233	3.2.1	AO System Architecture	DG	40 hrs	Wed 8/22/07	Tue 11/13/07
234	3.2.2	AO Enclosure	JM	40 hrs	Wed 8/22/07	Fri 9/28/07
235	3.2.3	Opto-mechanical	BB	1,004 hrs	Wed 8/22/07	Tue 12/18/07
236	3.2.3.1	Field Rotation	BB	45 hrs	Wed 8/22/07	Fri 11/2/07
237	3.2.3.2	Optical Relay	BB	60 hrs	Wed 8/22/07	Fri 11/2/07
238	3.2.3.3	Optical Switchyard	BB	50 hrs	Wed 8/22/07	Fri 11/2/07
239	3.2.3.4	Optical Support Structure	BB	45 hrs	Mon 11/5/07	Fri 11/30/07
240	3.2.3.5	Wavefront Sensors	VV	240 hrs	Wed 8/22/07	Fri 11/16/07
241	3.2.3.5.1	High Order LGS Wavefront Sensors	VV	80 hrs	Wed 8/22/07	Fri 11/16/07
242	3.2.3.5.2	High Order NGS Wavefront Sensor	VV	40 hrs	Wed 8/22/07	Fri 11/16/07
243	3.2.3.5.3	Low Order NGS Wavefront Sensors	VV	80 hrs	Wed 8/22/07	Fri 11/16/07
244	3.2.3.5.4	Calibration Wavefront Sensor	CN	40 hrs	Wed 8/22/07	Fri 11/16/07
245	3.2.3.6	Wavefront Correctors	CN	70 hrs	Wed 8/22/07	Fri 11/30/07
246	3.2.3.6.1	Tip/Tilt Corrector	BB	20 hrs	Mon 10/1/07	Fri 11/30/07
247	3.2.3.6.2	Deformable Mirror	CN	50 hrs	Wed 8/22/07	Tue 11/20/07
248	3.2.3.7	Acquisition Cameras	CN	40 hrs	Mon 10/1/07	Fri 10/26/07
249	3.2.3.7.1	NGS Acquisition Camera	CN	20 hrs	Mon 10/1/07	Fri 10/26/07
250	3.2.3.7.2	LGS Acquisition Camera	CN	20 hrs	Mon 10/1/07	Fri 10/26/07
251	3.2.3.8	Atmospheric Dispersion Correction	RD	24 hrs	Wed 8/22/07	Tue 12/18/07
252	3.2.3.9	Alignment, Calibration, Diagnostics, Metrology ar	CN	60 hrs	Wed 8/22/07	Mon 9/24/07
253	3.2.3.10	Atmospheric Profiler	MB	50 hrs	Wed 8/22/07	Tue 10/2/07
254	3.2.3.11	d-IFU & LOWFS AO & Object Selection	AM	320 hrs	Wed 8/22/07	Wed 11/7/07
255	3.2.4	Non-real-time Control	EJ	330 hrs	Mon 6/25/07	Thu 11/22/07
256	3.2.4.1	Non-RTC Software	EJ	170 hrs	Mon 6/25/07	Fri 8/31/07
257	3.2.4.2	Non-RTC Electronics	EJ	160 hrs	Mon 7/23/07	Thu 11/22/07
258	3.2.5	Real-time Control	DG	300 hrs	Mon 6/18/07	Mon 11/19/07
259	3.2.5.1	RTC Architecture Analysis and Design Study	DG	140 hrs	Mon 6/18/07	Fri 8/17/07
260	3.2.5.2	RTC Software Module Definition	EJ	80 hrs	Mon 8/20/07	Mon 11/19/07
261	3.2.5.3	RTC Hardware Module Definition	MR	80 hrs	Mon 8/20/07	Mon 11/19/07
262	3.3	Laser Facility		570 hrs	Mon 6/4/07	Fri 12/14/07
263	3.3.1	Laser System Architecture	VV	80 hrs	Mon 6/4/07	Fri 8/10/07

Project: NGAO System Design Phase Date: Tue 4/24/07		Critical	Task	Baseline	Milestone	Project Summary	Deadline
		Critical Split	Split	Baseline Split	Summary Progress	External Tasks	
		Critical Progress	Task Progress	Baseline Milestone	Summary	External Milestone	

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Project: NGAO System Design Phase
Date: Tue 4/24/07

Critical

Critical Split

Critical Progress

Task

Split

Task Progress

Baseline

Baseline Split

Baseline Milestone

Milestone

Summary Progress

Summary

Project Summary

External Tasks

External Milestone

Deadline