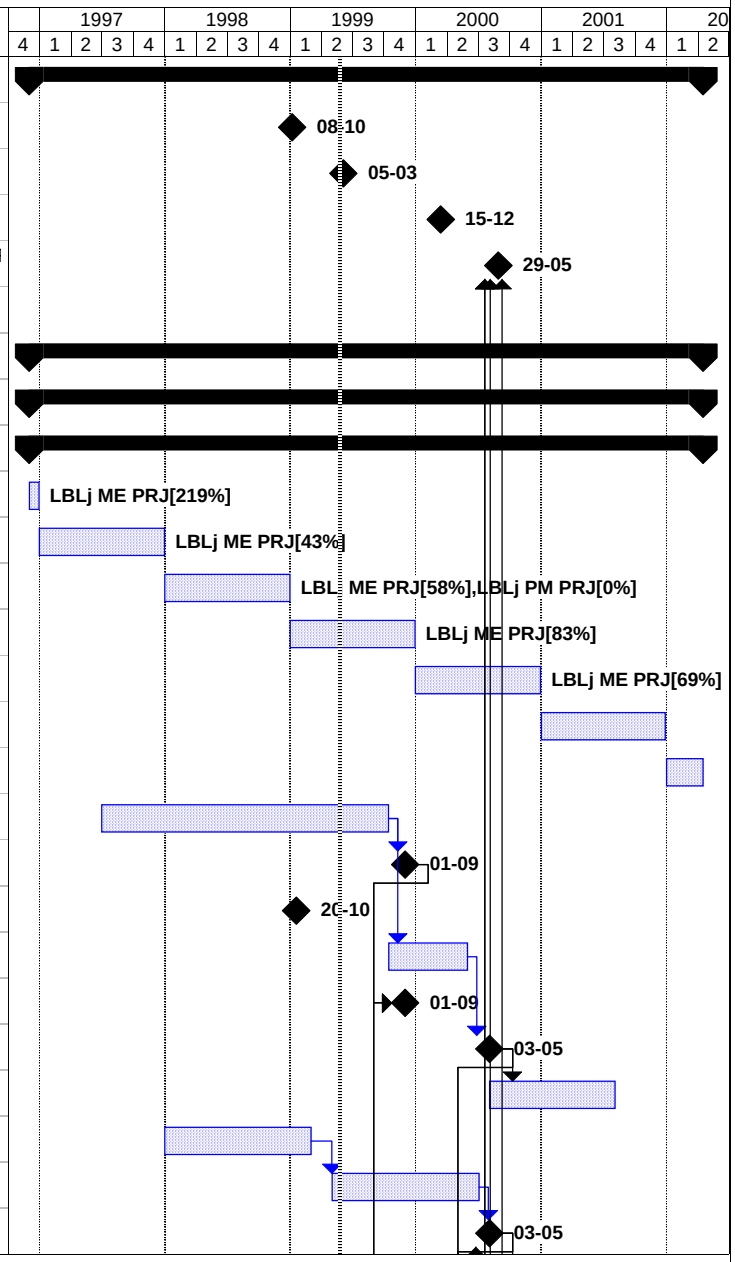
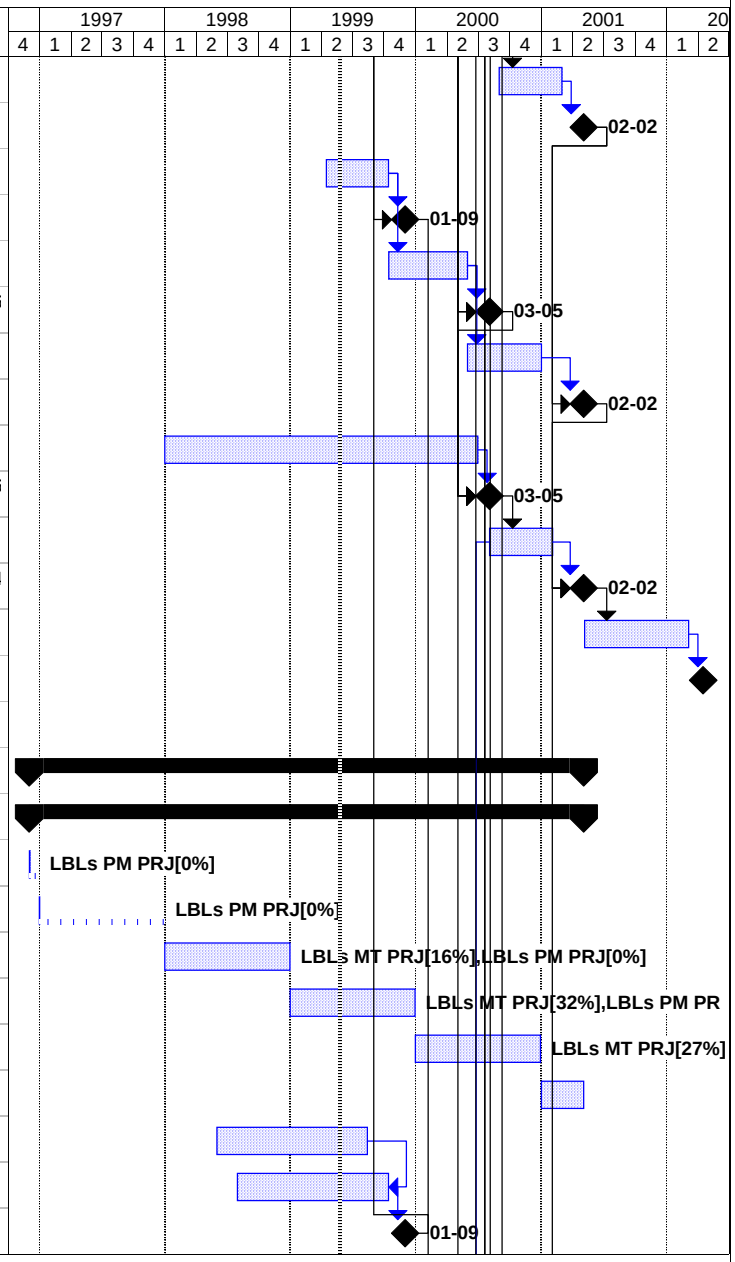
U.S.ATLAS
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
1	**1.1.1**	**Pixels**	**1403 d**	**Mon 02-09-96**	**Wed 16-01-02**	
2		R&D Baseline Lehman Review	0 d	Thu 08-10-98	Thu 08-10-98	
3		Internal Progress Review #1	0 d	Fri 05-03-99	Fri 05-03-99	
4		Internal Progress Review #2	0 d	Wed 15-12-99	Wed 15-12-99	
5		Production Baseline Review/Funding Release	0 d	Mon 29-05-00	Mon 29-05-00	150FS+40 d,100l
6						
7	**1.1.1.1**	**Mechanics**	**1403 d**	**Mon 02-09-96**	**Wed 16-01-02**	
8	**1.1.1.1.1**	**Design**	**1403 d**	**Mon 02-09-96**	**Wed 16-01-02**	
9		**Resources**	**1403 d**	**Mon 02-09-96**	**Wed 16-01-02**	
10		FY96 Prior Scheduled Activities	21 d	Mon 02-09-96	Mon 30-09-96	
11		Design FY97 Mat'l/Labor $'s	261 d	Tue 01-10-96	Tue 30-09-97	
12		Design FY98 Mat'l/Labor $'s	261 d	Wed 01-10-97	Wed 30-09-98	
13		Design FY99 Mat'l/Labor $'s	261 d	Thu 01-10-98	Thu 30-09-99	
14		Design FY00 Mat'l/Labor $'s	261 d	Fri 01-10-99	Fri 29-09-00	
15		Design FY01 Mat'l/Labor $'s	260 d	Mon 02-10-00	Fri 28-09-01	
16		Design FY02 Mat'l/Labor $'s	78 d	Mon 01-10-01	Wed 16-01-02	
17		Sector Preliminary Design	598 d	Tue 01-04-97	Thu 15-07-99	
18		Sector PDR	0 d	Wed 01-09-99	Wed 01-09-99	17FS+34 d
19		ID Engr Review at CERN	0 d	Tue 20-10-98	Tue 20-10-98	
20		Sector Final Design	165 d	Thu 15-07-99	Wed 01-03-00	17FS-1 d
21		Select Sector Baseline Concept	0 d	Wed 01-09-99	Wed 01-09-99	18,52
22		PRR for Sectors	0 d	Wed 03-05-00	Wed 03-05-00	20FS+45 d
23		Sector Prod Design/Oversight	262 d	Thu 04-05-00	Fri 04-05-01	22
24		Disk Conceptual Design	305 d	Wed 01-10-97	Tue 01-12-98	
25		Disk Preliminary Design	306 d	Mon 01-02-99	Mon 03-04-00	24
26		Disk PDR	0 d	Wed 03-05-00	Wed 03-05-00	25FS+22 d,55



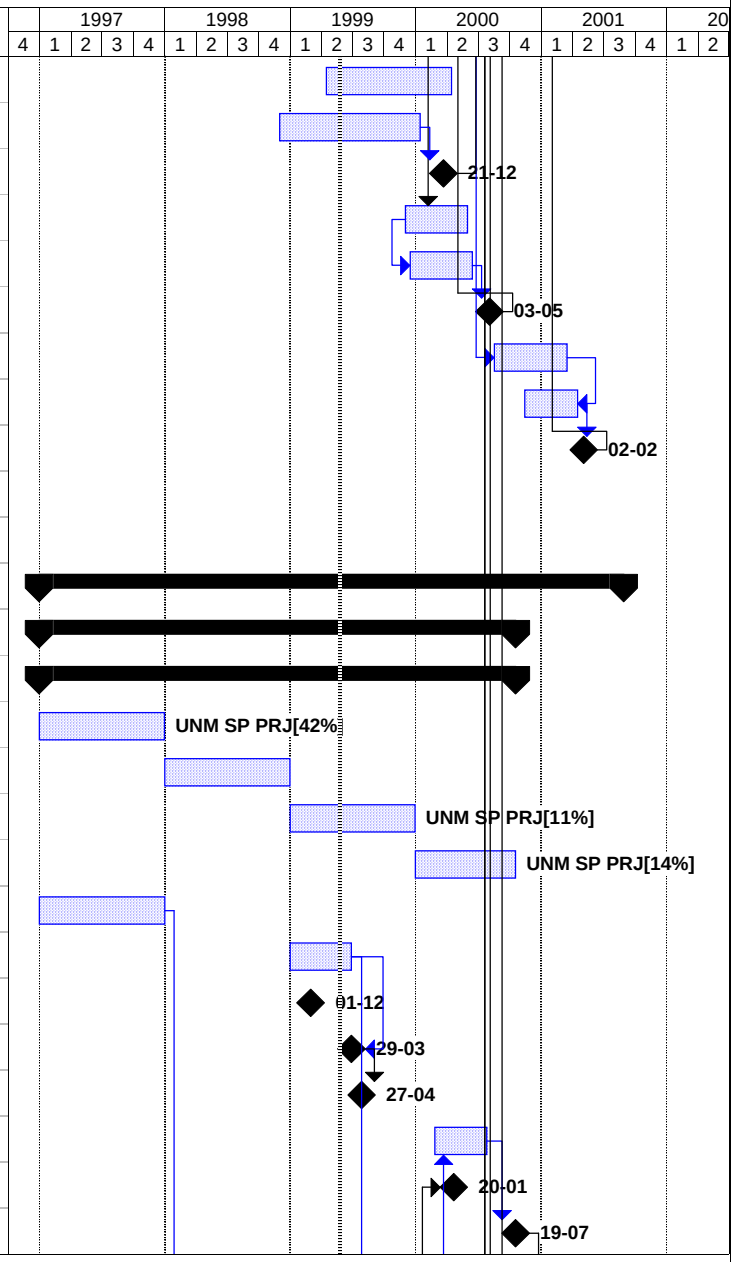
U.S.ATLAS
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
27		Disk Final Design	132 d	Thu 01-06-00	Fri 01-12-00	26
28		Disk PRR	0 d	Fri 02-02-01	Fri 02-02-01	27FS+45 d
29		Module Attach Concept Design	130 d	Fri 15-01-99	Thu 15-07-99	
30		Module Attach CDR	0 d	Wed 01-09-99	Wed 01-09-99	29FS+30 d,18
31		Module Attach Prel Design	165 d	Thu 15-07-99	Wed 01-03-00	29FS-1 d
32		Module Attach PDR	0 d	Wed 03-05-00	Wed 03-05-00	31FS+45 d,22,26
33		Module Attach Final Design	154 d	Wed 01-03-00	Mon 02-10-00	31FS-1 d
34		Module Attach PRR	0 d	Fri 02-02-01	Fri 02-02-01	33FS+44 d,28
35		Support Struct Concept Design	653 d	Wed 01-10-97	Fri 31-03-00	
36		Support Struct CDR	0 d	Wed 03-05-00	Wed 03-05-00	35FS+22 d,22,26
37		Support Struct Prel Design	132 d	Thu 04-05-00	Fri 03-11-00	36
38		Support Structure PDR	0 d	Fri 02-02-01	Fri 02-02-01	37FS+45 d,28,34
39		Support Struct Final Design	218 d	Mon 05-02-01	Wed 05-12-01	38
40		Support Structure PRR	0 d	Wed 16-01-02	Wed 16-01-02	39FS+30 d
41						
42	**1.1.1.1.2**	**Development/Prototypes**	**1155 d**	**Mon 02-09-96**	**Fri 02-02-01**	
43		**Resources**	**1155 d**	**Mon 02-09-96**	**Fri 02-02-01**	
44		FY96 Prior Scheduled Activities	21 d	Mon 02-09-96	Mon 30-09-96	
45		FY97 Prior Scheduled Activities	261 d	Tue 01-10-96	Tue 30-09-97	
46		Developments FY98 Mat'l/Labor	261 d	Wed 01-10-97	Wed 30-09-98	
47		Developments FY99 Mat'l/Labor	261 d	Thu 01-10-98	Thu 30-09-99	
48		Developments FY00 Mat'l/Labor	261 d	Fri 01-10-99	Fri 29-09-00	
49		Developments FY01 Mat'l/Labor	90 d	Mon 02-10-00	Fri 02-02-01	
50		Fabr 5-Disk Sector Protos	315 d	Mon 02-03-98	Fri 14-05-99	
51		Test 5-Disk Prototypes	315 d	Fri 01-05-98	Thu 15-07-99	50FF+40 d
52		Compl Testing of 5-Disk Protos	0 d	Wed 01-09-99	Wed 01-09-99	51FS+34 d



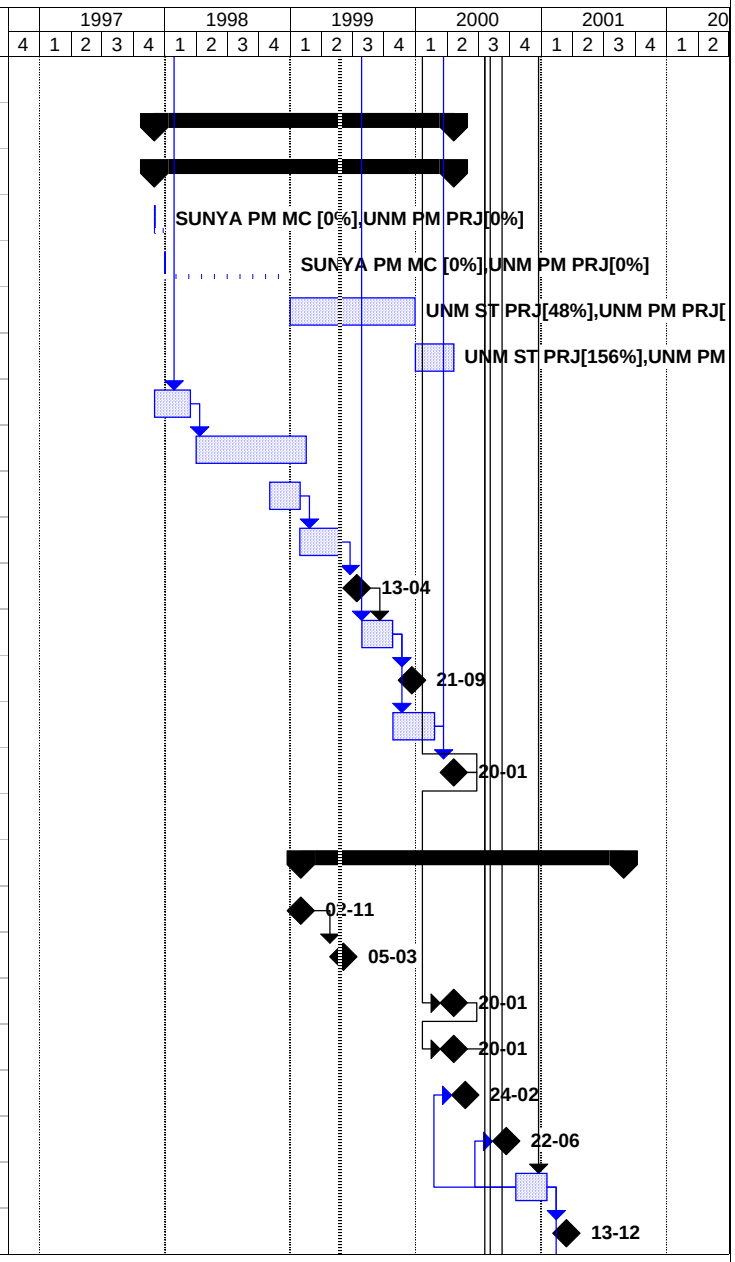
U.S.ATLAS
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
53		Fabricate Disk Prototypes	261 d	Fri 15-01-99	Fri 14-01-00	
54		Test Disk Prototypes	293 d	Tue 01-09-98	Thu 14-10-99	
55		Compl Testing of Disk Prototypes	0 d	Tue 21-12-99	Tue 21-12-99	54FS+48 d
56		Attach Dummy and Prototype Module	130 d	Thu 02-09-99	Wed 01-03-00	30
57		Test Module Attachment	130 d	Thu 16-09-99	Wed 15-03-00	56SS+10 d
58		Compl Test of Proto Module Attach	0 d	Wed 03-05-00	Wed 03-05-00	57FS+35 d
59		Fabr Support Structure Prototypes	152 d	Thu 18-05-00	Fri 15-12-00	37SS+10 d
60		Test Support Structure Prototypes	110 d	Tue 15-08-00	Mon 15-01-01	59FF+21 d
61		Compl Test of Support Structure Prot	0 d	Fri 02-02-01	Fri 02-02-01	60FS+14 d
62						
63						
64	**1.1.1.2**	**Sensors**	**1216 d**	**Tue 01-10-96**	**Tue 29-05-01**	
65	**1.1.1.2.1**	**Design**	**992 d**	**Tue 01-10-96**	**Wed 19-07-00**	
66		**Resources**	**992 d**	**Tue 01-10-96**	**Wed 19-07-00**	
67		Design FY97 Mat'l/Labor $'s	261 d	Tue 01-10-96	Tue 30-09-97	
68		Design FY98 Mat'l/Labor $'s	261 d	Wed 01-10-97	Wed 30-09-98	
69		Design FY99 Mat'l/Labor $'s	261 d	Thu 01-10-98	Thu 30-09-99	
70		Design FY00 Mat'l/Labor $'s	209 d	Fri 01-10-99	Wed 19-07-00	
71		First Prototype Design	262 d	Tue 01-10-96	Wed 01-10-97	
72		Second Prototype Design	128 d	Thu 01-10-98	Mon 29-03-99	
73		Second prototype PDR	0 d	Tue 01-12-98	Tue 01-12-98	
74		Second prototype FDR	0 d	Mon 29-03-99	Mon 29-03-99	72FF
75		Compl Second Prototype Design	0 d	Tue 27-04-99	Tue 27-04-99	74FS+21 d
76		Preproduction Design	109 d	Fri 26-11-99	Wed 26-04-00	93
77		Sensor Final Design Review	0 d	Thu 20-01-00	Thu 20-01-00	94
78		Compl Preproduction Design	0 d	Wed 19-07-00	Wed 19-07-00	76FS+60 d



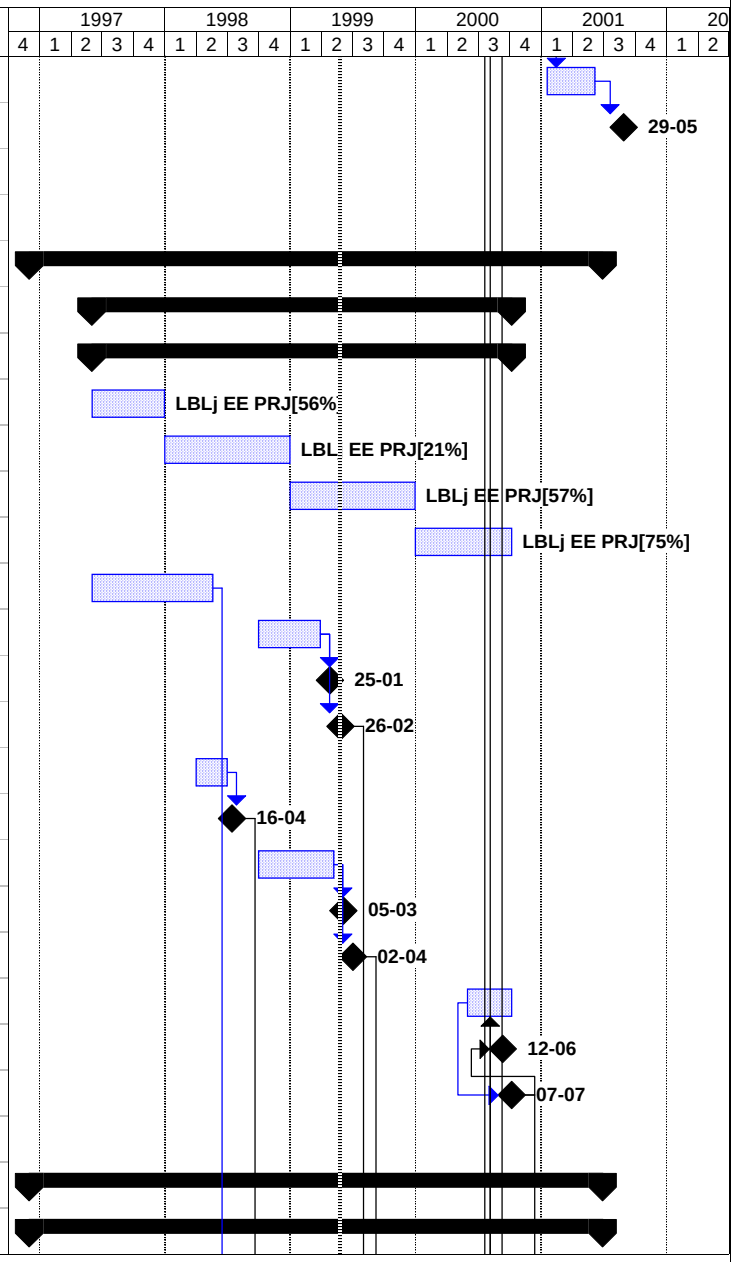
U.S.ATLAS
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
79						
80	**1.1.1.2.2**	**Development/Prototypes**	**624 d**	**Mon 01-09-97**	**Thu 20-01-00**	
81		**Resources**	**624 d**	**Mon 01-09-97**	**Thu 20-01-00**	
82		Development FY97 Mat'l/Labor S	22 d	Mon 01-09-97	Tue 30-09-97	
83		Development FY98 Mat'l/Labor S	261 d	Wed 01-10-97	Wed 30-09-98	
84		Development FY99 Mat'l/Labor S	261 d	Thu 01-10-98	Thu 30-09-99	
85		Development FY00 Mat'l/Labor S	80 d	Fri 01-10-99	Thu 20-01-00	
86		Fabricate First Prototypes	76 d	Mon 01-09-97	Mon 15-12-97	71FS-23 d
87		Test First Prototypes	229 d	Thu 01-01-98	Tue 17-11-98	86
88		Fabr Additional First Protos	65 d	Mon 03-08-98	Fri 30-10-98	
89		Test Additional First Protos	86 d	Fri 30-10-98	Fri 26-02-99	88FS-1 d
90		Compl Testing First Protos	0 d	Tue 13-04-99	Tue 13-04-99	89FS+32 d
91		Fabricate Second Protos	65 d	Wed 28-04-99	Tue 27-07-99	72,90FS+10 d
92		Compl Fabr of Second Protos	0 d	Tue 21-09-99	Tue 21-09-99	91FS+40 d
93		Test Second Protos	87 d	Wed 28-07-99	Thu 25-11-99	91FS-1 d
94		Compl Testing Second Protos	0 d	Thu 20-01-00	Thu 20-01-00	93FS+40 d
95						
96	**1.1.1.2.3**	**Production**	**672 d**	**Mon 02-11-98**	**Tue 29-05-01**	
97		Start Market Survey	0 d	Mon 02-11-98	Mon 02-11-98	
98		Complete Market Survey	0 d	Fri 05-03-99	Fri 05-03-99	97FS+90 d
99		Select Production Detector Type	0 d	Thu 20-01-00	Thu 20-01-00	94
100		Select Detector Vendor(s)	0 d	Thu 20-01-00	Thu 20-01-00	99
101		Start Preproduction Procurement	0 d	Thu 24-02-00	Thu 24-02-00	103SS-105 d
102		Complete Preproduction Procuremen	0 d	Thu 22-06-00	Thu 22-06-00	103SS-20 d
103		Preproduction Fabrication	65 d	Thu 20-07-00	Wed 18-10-00	78
104		Complete Preproduction Fabrication	0 d	Wed 13-12-00	Wed 13-12-00	103FS+40 d



U.S.ATLAS
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
105		Test Preproduction	100 d	Wed 18-10-00	Tue 06-03-01	103FS-1 d
106		Compl Preprod Testing	0 d	Tue 29-05-01	Tue 29-05-01	105FS+60 d
107						
108						
109	**1.1.1.3**	**Electronics**	**1194 d**	**Mon 02-09-96**	**Thu 29-03-01**	
110	**1.1.1.3.1**	**Design**	**875 d**	**Mon 03-03-97**	**Fri 07-07-00**	
111		**Resources**	**875 d**	**Mon 03-03-97**	**Fri 07-07-00**	
112		Design FY97 Mat'l/Labor $'s	152 d	Mon 03-03-97	Tue 30-09-97	
113		Design FY98 Mat'l/Labor $'s	261 d	Wed 01-10-97	Wed 30-09-98	
114		Design FY99 Mat'l/Labor $'s	261 d	Thu 01-10-98	Thu 30-09-99	
115		Design FY00 Mat'l/Labor $'s	201 d	Fri 01-10-99	Fri 07-07-00	
116		Design Rad-Soft Proto(FE-B)	253 d	Mon 03-03-97	Wed 18-02-98	
117		Design DMILL Rad-Hard Proto	129 d	Wed 01-07-98	Mon 28-12-98	
118		Final Design Review DMILL Rad-Har	0 d	Mon 25-01-99	Mon 25-01-99	117FS+20 d
119		Compl Design DMILL Rad-Hard Prot	0 d	Fri 26-02-99	Fri 26-02-99	117FS+40 d
120		Design Honeywell Sol Test Devices/C	65 d	Thu 01-01-98	Wed 01-04-98	
121		Compl Des Honeywell Rad-Hard Tes	0 d	Thu 16-04-98	Thu 16-04-98	120
122		Design Honeywell Sol 1st Proto FE	158 d	Wed 01-07-98	Fri 05-02-99	
123		Final Design Review Honeywell 1st P	0 d	Fri 05-03-99	Fri 05-03-99	122FS+20 d
124		Compl Des Honeywell FE Rad-Hard I	0 d	Fri 02-04-99	Fri 02-04-99	122FS+40 d
125		Design 2nd Rad-Hard Proto FE	93 d	Wed 01-03-00	Fri 07-07-00	150
126		Final Design Review of 2nd Rad-Har	0 d	Mon 12-06-00	Mon 12-06-00	127FS-20 d
127		Compl Des 2nd Rad-Hard Proto	0 d	Fri 07-07-00	Fri 07-07-00	125SS+93 d
128						
129	**1.1.1.3.2**	**Development/Prototypes**	**1194 d**	**Mon 02-09-96**	**Thu 29-03-01**	
130		**Resources**	**1194 d**	**Mon 02-09-96**	**Thu 29-03-01**	



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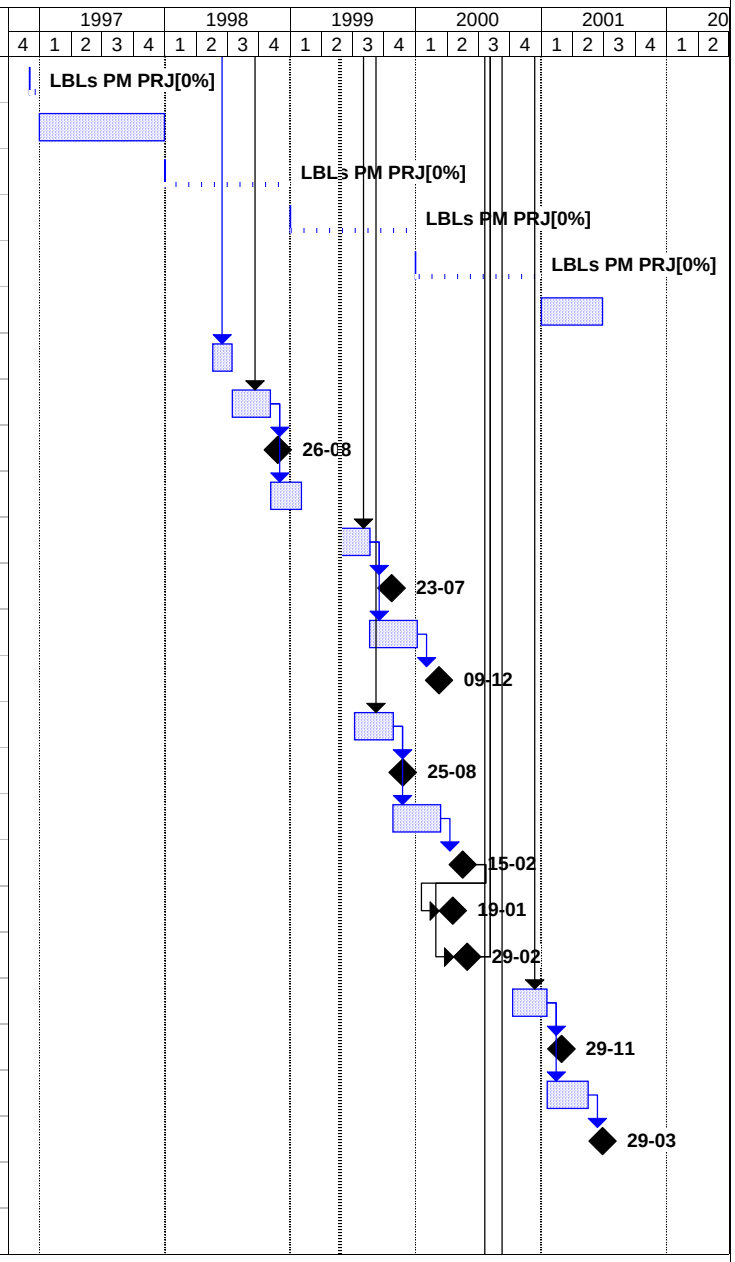
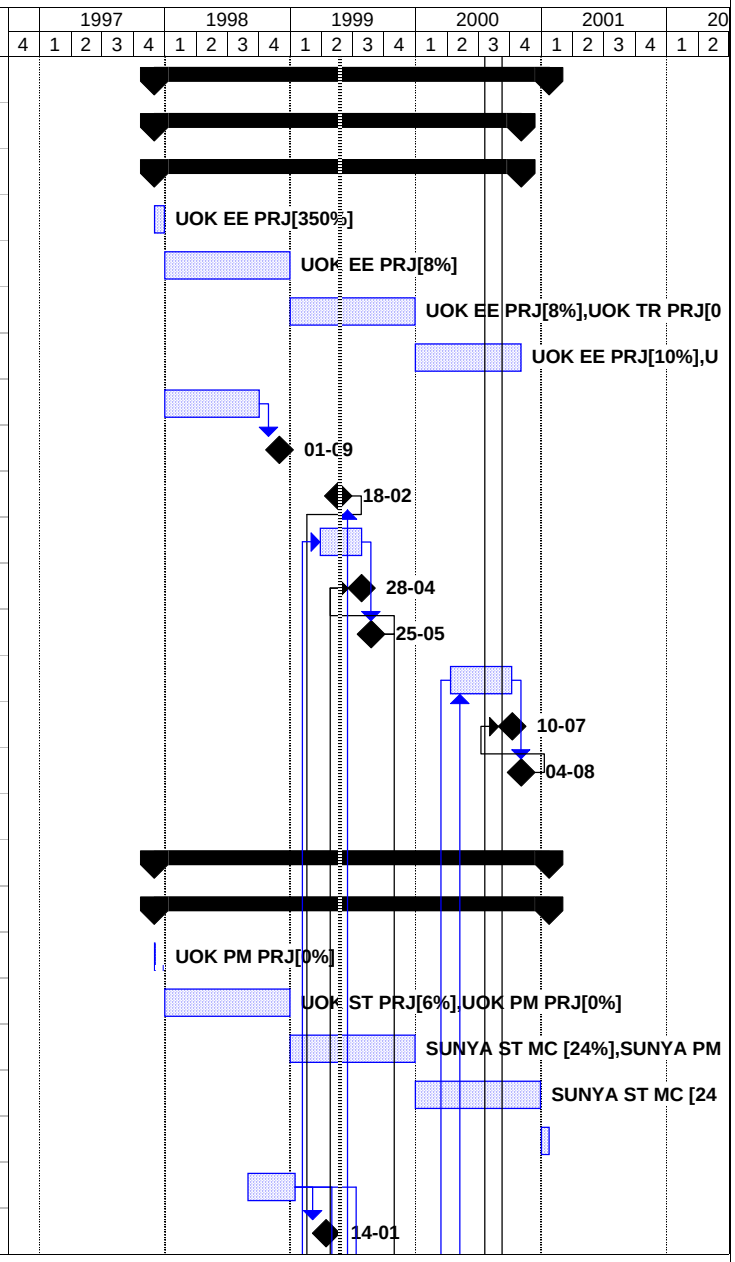
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
131		FY96 Prior Scheduled Activities	21 d	Mon 02-09-96	Mon 30-09-96	
132		FY97 Prior Scheduled Activities	261 d	Tue 01-10-96	Tue 30-09-97	
133		Development FY98 Mat'l/Labor S	261 d	Wed 01-10-97	Wed 30-09-98	
134		Development FY99 Mat'l/Labor S	261 d	Thu 01-10-98	Thu 30-09-99	
135		Development FY00 Mat'l/Labor S	261 d	Fri 01-10-99	Fri 29-09-00	
136		Development FY01 Mat'l/Labor S	129 d	Mon 02-10-00	Thu 29-03-01	
137		Fabricate FE-B(HP)	41 d	Wed 18-02-98	Wed 15-04-98	116FS-1 d
138		Fabr Honeywell SOI Test Devices	80 d	Thu 16-04-98	Wed 05-08-98	121
139		Compl Fabr of Honeywell Sol Test De	0 d	Wed 26-08-98	Wed 26-08-98	138FS+15 d
140		Test Honeywell SOI devices	65 d	Wed 05-08-98	Tue 03-11-98	138FS-1 d
141		Fabricate DMILL Prototype	61 d	Fri 26-02-99	Fri 21-05-99	119
142		Compl Fabr of DMILL Proto	0 d	Fri 23-07-99	Fri 23-07-99	141FS+45 d
143		Test DMILL Prototype	100 d	Fri 21-05-99	Thu 07-10-99	141FS-1 d
144		Compl Testing DMILL Prototype	0 d	Thu 09-12-99	Thu 09-12-99	143FS+45 d
145		Fabr Honeywell SOI Proto	81 d	Wed 07-04-99	Wed 28-07-99	124
146		Compl Fabr Honeywell Protos	0 d	Wed 25-08-99	Wed 25-08-99	145FS+20 d
147		Test Honeywell SOI Proto	100 d	Wed 28-07-99	Tue 14-12-99	145FS-1 d
148		Compl Testing Honeywell Prototype	0 d	Tue 15-02-00	Tue 15-02-00	147FS+45 d
149		Review Design Approach	0 d	Wed 19-01-00	Wed 19-01-00	148FS-20 d
150		Vendor Selection	0 d	Tue 29-02-00	Tue 29-02-00	148FS+10 d
151		Fabr 2nd Rad-Hard Proto	73 d	Mon 10-07-00	Wed 18-10-00	127
152		Compl Fabr of 2nd Rad-Hard Proto	0 d	Wed 29-11-00	Wed 29-11-00	151FS+30 d
153		Test 2nd Rad-Hard Proto	87 d	Wed 18-10-00	Thu 15-02-01	151FS-1 d
154		Compl test 2nd Rad-Hard Proto	0 d	Thu 29-03-01	Thu 29-03-01	153FS+30 d
155						
156						



U.S.ATLAS
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
157	**1.1.1.4**	**Hybrids**	**822 d**	**Mon 01-09-97**	**Tue 24-10-00**	
158	**1.1.1.4.1**	**Design**	**765 d**	**Mon 01-09-97**	**Fri 04-08-00**	
159		**Resources**	**765 d**	**Mon 01-09-97**	**Fri 04-08-00**	
160		FY97 Prior Scheduled Activities	22 d	Mon 01-09-97	Tue 30-09-97	
161		Design FY98 Mat'l/Labor $'s	261 d	Wed 01-10-97	Wed 30-09-98	
162		Design FY99 Mat'l/Labor $'s	261 d	Thu 01-10-98	Thu 30-09-99	
163		Design FY00 Mat'l/Labor $'s	221 d	Fri 01-10-99	Fri 04-08-00	
164		First Prototype Design	198 d	Wed 01-10-97	Fri 03-07-98	
165		Compl First Proto Design	0 d	Tue 01-09-98	Tue 01-09-98	164
166		1st Prototype Design Review	0 d	Thu 18-02-99	Thu 18-02-99	183
167		Second Prototype Design	87 d	Mon 28-12-98	Tue 27-04-99	183FS-80 d
168		2nd Prototype Design Review	0 d	Wed 28-04-99	Wed 28-04-99	169FS-20 d,185
169		Compl Second Proto Design	0 d	Tue 25-05-99	Tue 25-05-99	167FS+20 d
170		Third Prototype Design	129 d	Tue 11-01-00	Fri 07-07-00	187FS-1 d
171		3rd Prototype Design Review	0 d	Mon 10-07-00	Mon 10-07-00	172FS-20 d
172		Compl Third Prototype Design	0 d	Fri 04-08-00	Fri 04-08-00	170FS+20 d
173						
174	**1.1.1.4.2**	**Development/Prototypes**	**822 d**	**Mon 01-09-97**	**Tue 24-10-00**	
175		**Resources**	**822 d**	**Mon 01-09-97**	**Tue 24-10-00**	
176		FY97 Prior Scheduled Activities	22 d	Mon 01-09-97	Tue 30-09-97	
177		Development FY98 Mat'l/Labor $	261 d	Wed 01-10-97	Wed 30-09-98	
178		Development FY99 Mat'l/Labor $	261 d	Thu 01-10-98	Thu 30-09-99	
179		Development FY00 Mat'l/Labor $	261 d	Fri 01-10-99	Fri 29-09-00	
180		Development FY01 Mat'l/Labor $	17 d	Mon 02-10-00	Tue 24-10-00	
181		Fabricate First Prototypes	99 d	Mon 01-06-98	Thu 15-10-98	
182		Compl Fabr/Assy of 1st Proto	0 d	Thu 14-01-99	Thu 14-01-99	181FS+65 d



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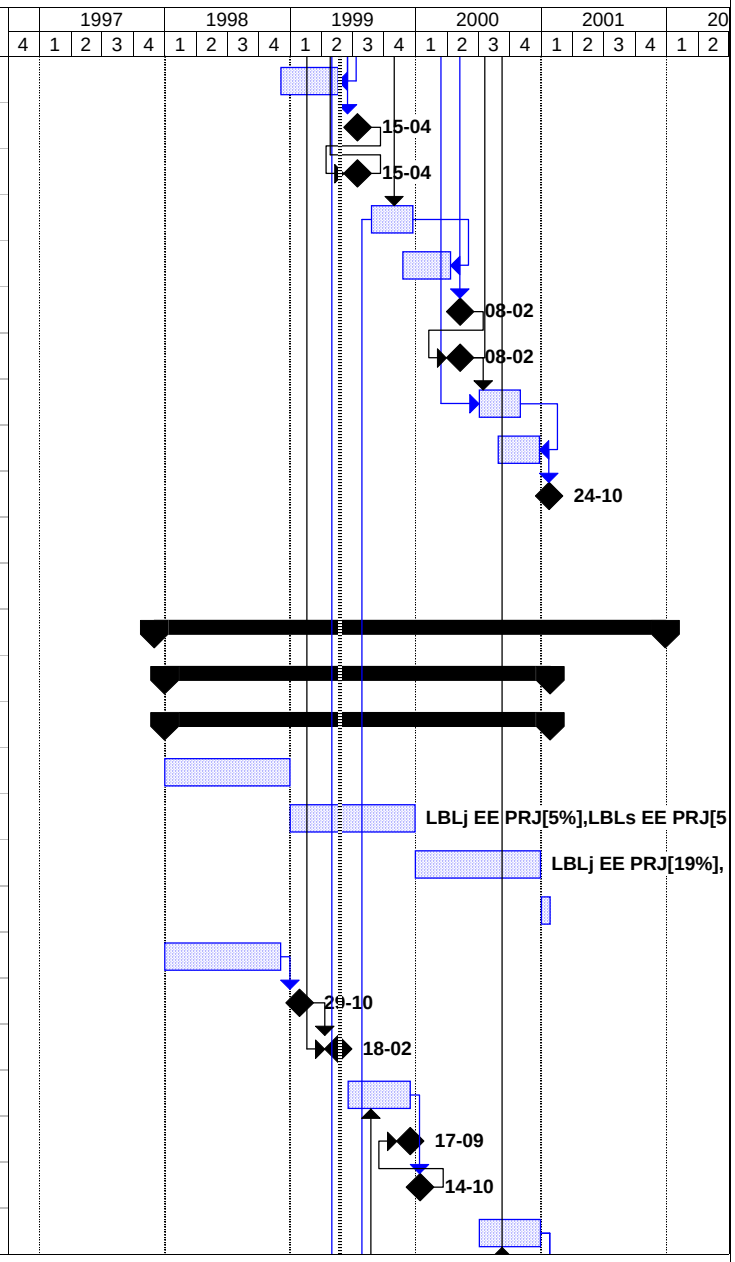
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
183		Test First Prototypes	120 d	Fri 04-09-98	Thu 18-02-99	181FF+90 d
184		Compl Tests of First Protos	0 d	Thu 15-04-99	Thu 15-04-99	183FS+40 d
185		Select Hybrid Type	0 d	Thu 15-04-99	Thu 15-04-99	184
186		Fabricate Second Prototypes	87 d	Wed 26-05-99	Thu 23-09-99	169
187		Test Second Prototypes	100 d	Wed 25-08-99	Tue 11-01-00	186FF+40 d
188		Compl Tests of 2nd Prototypes	0 d	Tue 08-02-00	Tue 08-02-00	187FS+20 d
189		Select Hybrid Prod Vendor(s)	0 d	Tue 08-02-00	Tue 08-02-00	188
190		Third Prototype Fabrication	86 d	Tue 04-04-00	Tue 01-08-00	189,170SS+60 d
191		Test Third Protype Hybrids	87 d	Mon 29-05-00	Tue 26-09-00	190FF+40 d
192		Compl Tests of 3rd Proto Hybrids	0 d	Tue 24-10-00	Tue 24-10-00	191FS+20 d
193						
194						
195	**1.1.1.5**	**Modules**	**1065 d**	**Mon 01-09-97**	**Fri 28-09-01**	
196	**1.1.1.5.1**	**Design**	**803 d**	**Wed 01-10-97**	**Fri 27-10-00**	
197		**Resources**	**803 d**	**Wed 01-10-97**	**Fri 27-10-00**	
198		Design FY98 Mat'l/Labor $'s	261 d	Wed 01-10-97	Wed 30-09-98	
199		Design FY99 Mat'l/Labor $'s	261 d	Thu 01-10-98	Thu 30-09-99	
200		Design FY00 Mat'l/Labor $'s	261 d	Fri 01-10-99	Fri 29-09-00	
201		Design FY01 Mat'l/Labor $'s	20 d	Mon 02-10-00	Fri 27-10-00	
202		First Prototype Design	242 d	Wed 01-10-97	Thu 03-09-98	
203		Compl First Prototype Design	0 d	Thu 29-10-98	Thu 29-10-98	202FS+40 d
204		1st Prototype Design Review	0 d	Thu 18-02-99	Thu 18-02-99	203,166
205		Second Prototype Design	130 d	Fri 19-03-99	Thu 16-09-99	221
206		2nd Prototype Design Review	0 d	Fri 17-09-99	Fri 17-09-99	207FS-20 d
207		Compl 2nd Proto Design	0 d	Thu 14-10-99	Thu 14-10-99	205FS+20 d
208		Third Prototype Design	129 d	Tue 04-04-00	Fri 29-09-00	225



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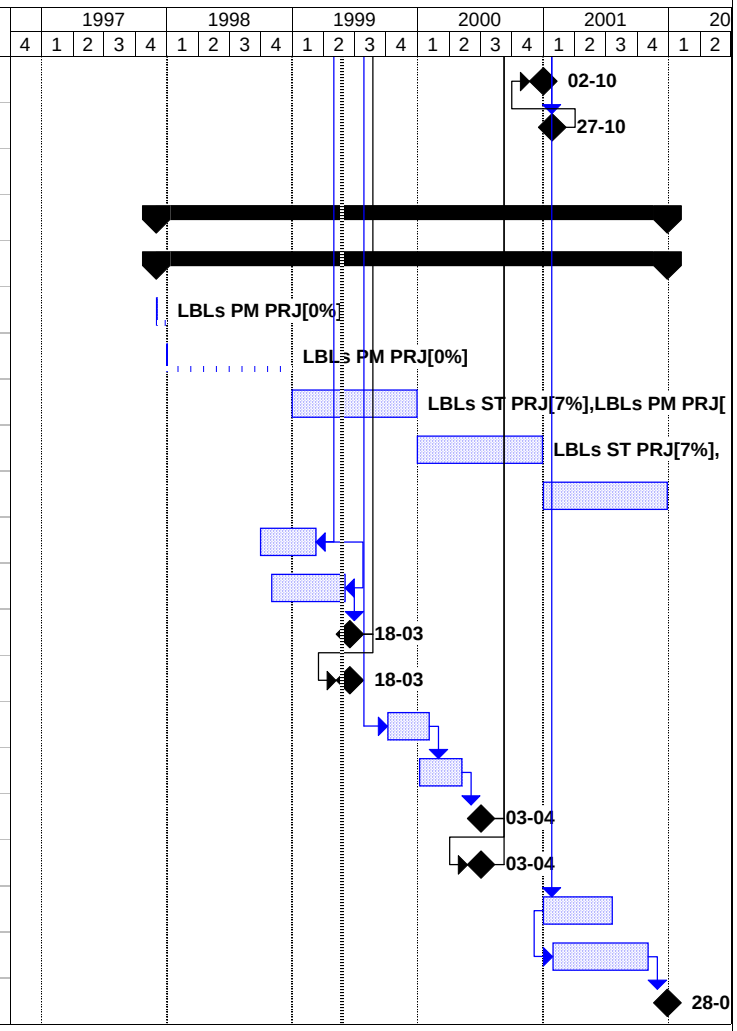
1.1 Silicon
WBS 1.1.1 Pixels Schedule

ID	WBS	Task Name	Duration	Start	Finish	Predecessors
209		3rd Prototype Design Review	0 d	Mon 02-10-00	Mon 02-10-00	210FS-20 d
210		Compl 3rd Proto Design	0 d	Fri 27-10-00	Fri 27-10-00	208FS+20 d
211						
212	**1.1.1.5.2**	**Development/Prototypes**	**1065 d**	**Mon 01-09-97**	**Fri 28-09-01**	
213		**Resources**	**1065 d**	**Mon 01-09-97**	**Fri 28-09-01**	
214		FY97 Prior Scheduled Activities	22 d	Mon 01-09-97	Tue 30-09-97	
215		Development FY98 Mat'l/Labor S	261 d	Wed 01-10-97	Wed 30-09-98	
216		Development FY99 Mat'l/Labor S	261 d	Thu 01-10-98	Thu 30-09-99	
217		Development FY00 Mat'l/Labor S	261 d	Fri 01-10-99	Fri 29-09-00	
218		Development FY01 Mat'l/Labor S	260 d	Mon 02-10-00	Fri 28-09-01	
219		Fabricate First Prototypes	117 d	Wed 01-07-98	Thu 10-12-98	181FF+40 d
220		Test First Prototype	154 d	Mon 03-08-98	Thu 04-03-99	219FF+60 d
221		Compl Tests of First Protos	0 d	Thu 18-03-99	Thu 18-03-99	220FS+10 d
222		Select Module Type	0 d	Thu 18-03-99	Thu 18-03-99	221
223		Fabricate Second Prototypes	87 d	Wed 07-07-99	Thu 04-11-99	186SS+30 d
224		Test Second Prototypes	87 d	Fri 08-10-99	Mon 07-02-00	223FS-20 d
225		Compl Tests of 2nd Prototypes	0 d	Mon 03-04-00	Mon 03-04-00	224FS+40 d
226		Select Module Prod Vendor(s)	0 d	Mon 03-04-00	Mon 03-04-00	225
227		Fabricate 3rd Prototypes	145 d	Mon 02-10-00	Fri 20-04-01	208
228		Test 3rd Prototype Modules	200 d	Mon 30-10-00	Fri 03-08-01	227SS+20 d
229		Compl Tests of 3rd Proto Modules	0 d	Fri 28-09-01	Fri 28-09-01	228FS+40 d