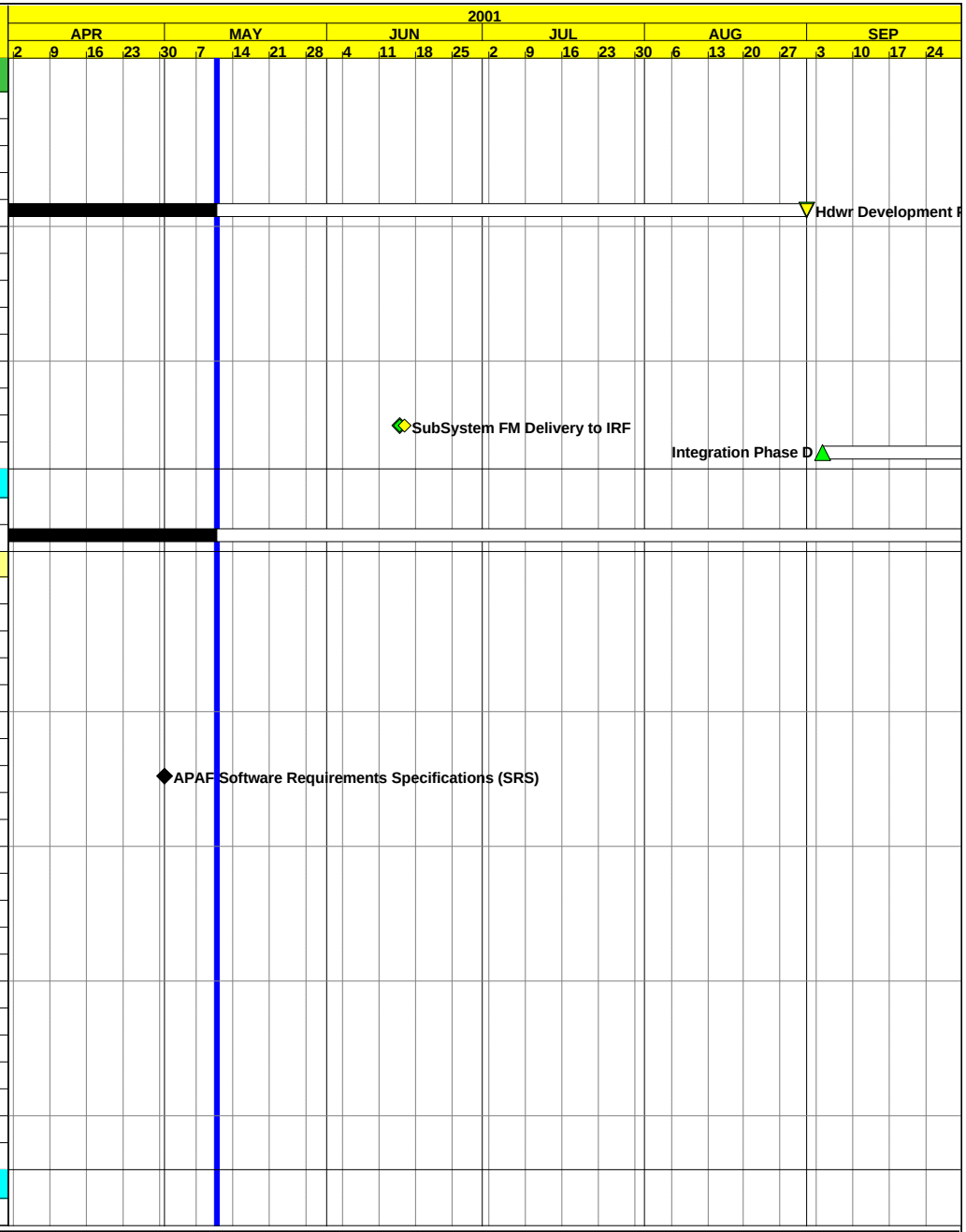
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
1 Management						
MGMT0001	Go Ahead Decision	0	100	12NOV98A		
MGMT0005	Definition Phase B	217	100	01JAN99A	29OCT99A	
MGMT0050	Program Implementation Plan (PIP)	0	100	20SEP99A	15OCT99A	
MGMT0006	Bridge Phase	103	100	01OCT99A	29FEB00A	
MGMT0010	Hdwr Development Phase C	383*	79	01MAR00A	31AUG01	0
MILE200	Delivery E/PO Plan to NASA	0	100		01AUG00A	
MGMT0020	ELS STM Delivered	0	100		28AUG00A	
ASP0010	SubSystem STM Delivery to IRF	0	100		01SEP00A	
ASP0020	STM Delivery to ESA	0	100		02JAN01A	
MGMT0035	IMA Flt. Hdwr (2 Sets) Delivered	0	100		09JAN01A	
MGMT0040	IMA Flt. Spare Hdwr (1 Set) Delivered	0	100		09JAN01A	
MGMT0025	ELS FU & FSU Delivered	0	100		05MAR01A	
ASP0050	SubSystem FM Delivery to IRF	0	0		14JUN01	1
MGMT0015	Integration Phase D	377	0	04SEP01	03MAR03	0
1.1 Project Management						
MGMT0100	Project Management - Bridge	103	100	01OCT99A	29FEB00A	
MGMT0105	Project Management - Phase C/D	844*	36	01MAR00A	30JUN03	0
1.1 .1 Project Milestones						
MILE002	Revised Risk Management Plan Complete	0	100		18NOV99A	
MILE003	Order ELS MCP's (PF=$57,875)	0	100		01DEC99A	
MILE004	Release Software Development Plan (PF=$148,107)	0	100		17DEC99A	
MILE001	ELS & IMA PWB Layouts Complete (PF=$124,063)	0	100		18FEB00A	
MILE005	Final Proto ELS&IMA Detailed Dsgns (PF=$354,867)	0	100		21FEB00A	
MILE100	Project Data Management Plan (PDMP)	0	100		05MAY00A	
MILE105	Data System Interface Document (DSID)	0	100		18AUG00A	
MILE110	APAF Software Requirements Specifications (SRS)	0	100		30APR01A	
MILE115	S/W Dsn Docum'ts (SDDs) for ELS, IMA, NPI, &	0	0		14DEC01*	0
MILE120	S/W Design Docum'ts (SDDs) for SU, DPU, & OA	0	0		30AUG02*	0
MILE125	APAF System Design Document	0	0		04DEC02*	0
MILE130	APAF Acceptance Test Plan	0	0		21FEB03*	0
MILE135	APAF Operations Procedures Document (OPD)	0	0		23MAY03*	0
MILE140	Instr. CheckOut Results after Launch (via plots)	0	0		30JUL03*	0
MILE145	Instr CheckOut Results of Mars Encounter (Plots)	0	0		02FEB04*	0
MILE150	Begin submitting data to PDS	0	0		30JUL04*	0
MILE155	Software Maintenance Report CY 2004	0	0		04JAN05*	0
MILE165	Science Software Support Tasks Report CY 2004	0	0		01MAR05*	0
MILE170	Software Maintenance Report CY 2005	0	0		03JAN06*	0
MILE175	Science Software Support Tasks Report CY 2005	0	0		03MAR06*	0
MILE180	Software Maintenance Report CY 2006	0	0		02JAN07*	0
MILE185	Science Software Support Tasks Report CY 2006	0	0		02JAN07*	0
1.2 Planning, Scheduling & Cost Control						
MGMT0200	Administrative Support - Bridge	103	100	01OCT99A	29FEB00A	



Start Date	27APR99
Finish Date	31DEC07
Data Date	11MAY01
Run Date	24MAY01 10:19

Early Bar
Float Bar
Progress Bar
Critical Activity

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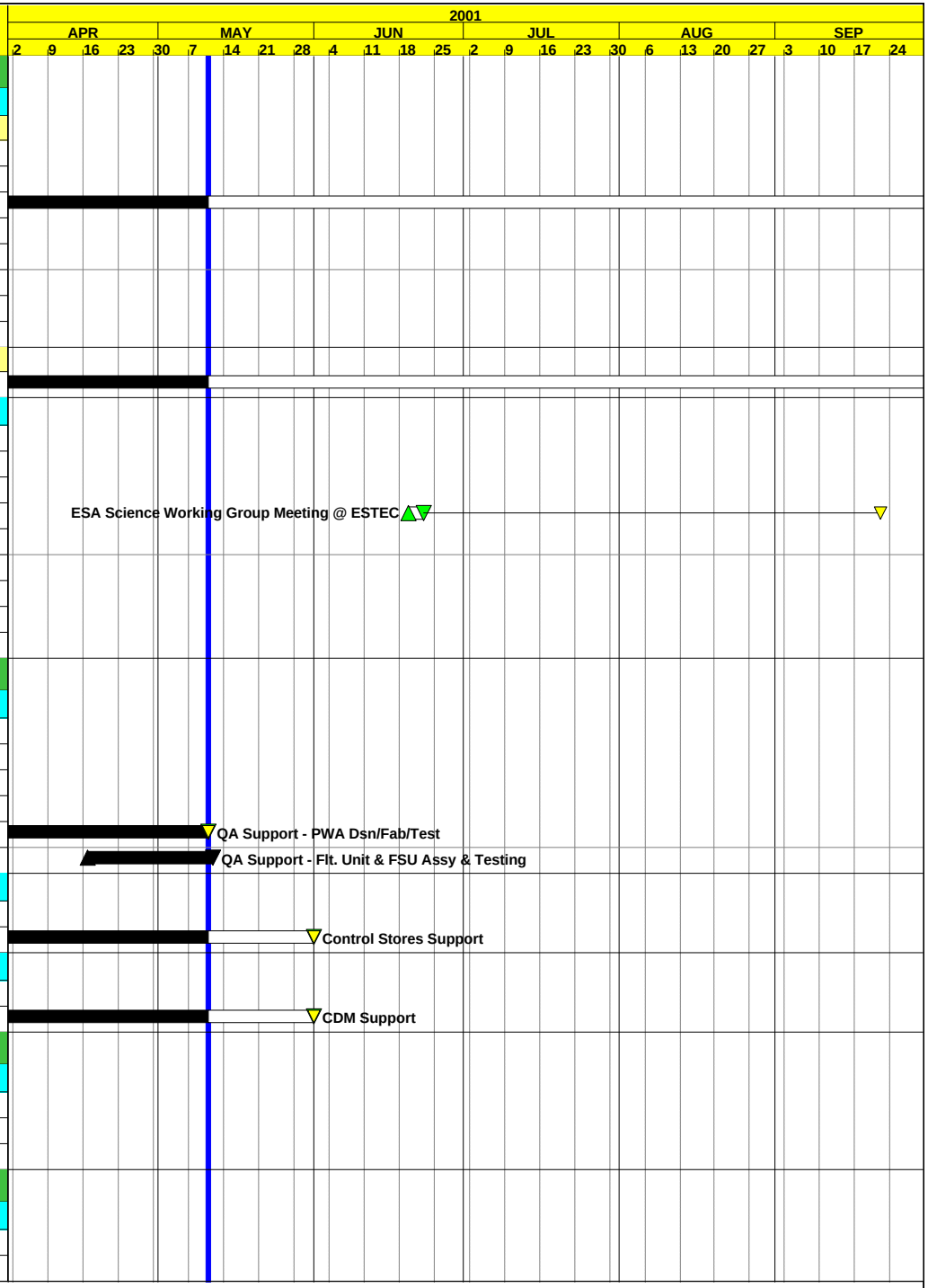
ASPC

Southwest Research Institute
ASPERA-3 Development
Status as of 14 May, 2001
- All Activity -

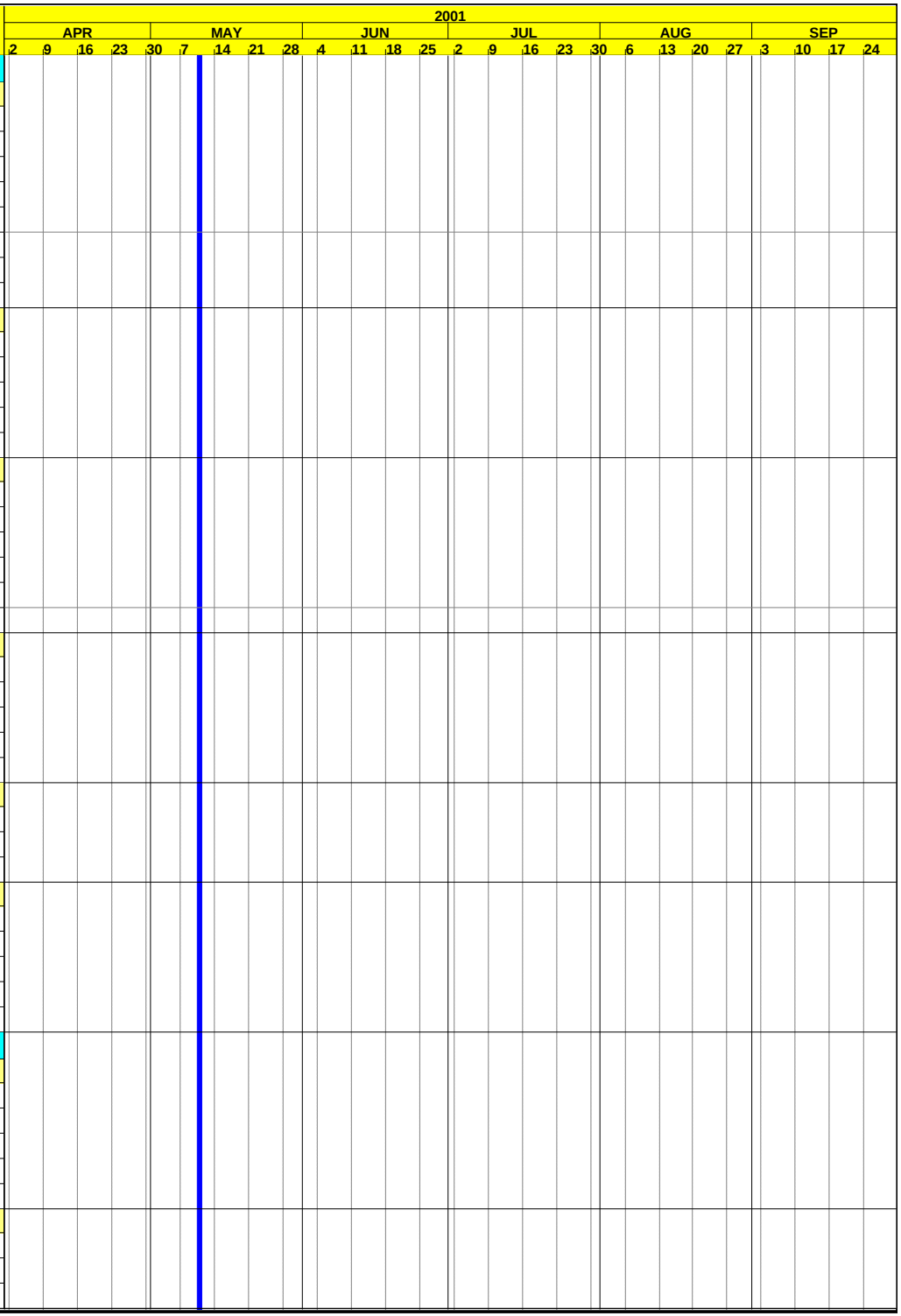
Date	Revision	Checked	Approved
04OCT99	Schedule Baselined	BH	JS
25FEB00	Removed B&Bridge Phase Cost Data	BH	JS
07APR00	Incorp Add'l Proto AI&T & GSE Tasks	BH	JS
05MAY00	Validated Budget w/ 4Oct99 Baseline	BH	JS
16MAR01	Incorporated ELS FU/FSU Rework Activity	BH	JS

Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
1.2 Planning, Scheduling & Cost Control						
MGMT0220	Planning Support - Bridge	103	100	01OCT99A	29FEB00A	
MGMT0240	Monthly EV Analysis - Bridge	103	100	01OCT99A	29FEB00A	
MGMT0200C	Administrative Support	318*	96	01MAR00A	31MAY01	0
MGMT0230	Planning Support - Phase C/D	318*	96	01MAR00A	31MAY01	0
MGMT0250	Monthly Earned Value Analysis - Phase C/D	318*	96	01MAR00A	31MAY01	0
1.3 ASPERA Team / Technical Interchange Meetings						
MGMT0300	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	100	19MAY99A	21MAY99A	
MGMT0320	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	100	05SEP00A	08SEP00A	
MGMT0330	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	100	05MAR01A	08MAR01A	
MGMT0340	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	0	06JUN02*	10JUN02	78
MGMT0350	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	0	04JUN03*	06JUN03	80
MGMT0360	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	0	02JUN04*	04JUN04	82
MGMT0370	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	0	08JUN05*	10JUN05	78
MGMT0380	ASPERA Team Meeting / TIM @ IRF/Kiruna	3	0	07JUN06*	09JUN06	78
1.4 Reviews						
1.4 .1 Instrument / Missoin Reviews						
MGMT0410	Instrument Requirements Review (IRR)	2	100	05MAY99A	06MAY99A	
MGMT0413	IPDR Preparation	6	100	17SEP99A	07OCT99A	
MGMT0415	Inst. Preliminary Design Rvw (IPDR) @ Nordvic	2	100	08OCT99A	11OCT99A	
MGMT0418	ICDR Preparation	0	100	14AUG00A	31AUG00A	
MGMT0420	Instrument Critical Design Rvw (ICDR) @ Nordvic	2	100	06SEP00A	07SEP00A	
MGMT0445	IMA Flt. Set 1&2 Pre-Ship Rvw (PSR)	1	100	18DEC00A	18DEC00A	
MGMT0430	ELS FU Pre-Environmental Rvw (PER)	1	100	29JAN01A	29JAN01A	
MGMT0435	ELS FU Pre-Ship Rvw (PSR)	1	100	22FEB01A	22FEB01A	
MGMT0425	Instr. Qual & Acceptance Rvw (IQAR) @ Nordvic	2	0	16JUL01*	17JUL01	1
1.4 .2 Design Reviews						
MGMT0450	PDR/CAR Preparation	6	100	07SEP99A	14SEP99A	
MGMT0470	ELS/IMA Internal Prelim Design Review (PDR)	1	100	15SEP99A	15SEP99A	
MGMT0472	ELS/IMA Confirmation Assessment Review (CAR)	1	100	16SEP99A	16SEP99A	
MGMT0475	U.S. Confirmation Readiness Rvw (CRR) - VideoCon	1	100	14OCT99A	14OCT99A	
MGMT0482	CDR Preparation	6	100	02JUN00A	13JUN00A	
MGMT0495	Internal ELS/IMA Critical Design Rvw (CDR)	2	100	14JUN00A	15JUN00A	
1.5 Risk Management						
MGMT0600	Risk Analysis & Management	407*	100	01OCT99A		
MGMT0950	Management Reserve - Software	655*	46	01MAR00A	30SEP02	0
MGMT0955	Management Reserve - Software	1,326	0	01OCT02*	31DEC07	0
1.6 Travel						
MGMT0620	FY99 Travel	47	100	31AUG99A	30SEP99A	
MGMT0630	FY00 Travel - Bridge	103	100	01OCT99A	29FEB00A	
MGMT0635	FY00 Travel - Phase C	188*	100	01MAR00A	29SEP00A	
MGMT0640	FY01 Travel	252*	61	02OCT00A	28SEP01	0
MGMT0650	FY02 Travel	253	0	01OCT01	30SEP02	0
MGMT0660	FY03 Travel	253	0	01OCT02	30SEP03	0
MGMT0665	FY04 Travel	254	0	01OCT03	30SEP04	0
MGMT0670	FY05 Travel	253	0	01OCT04	30SEP05	0
MGMT0675	FY06 Travel	252	0	03OCT05	29SEP06	0
MGMT0680	FY07 Travel	61*	0	02OCT06	29DEC06	0

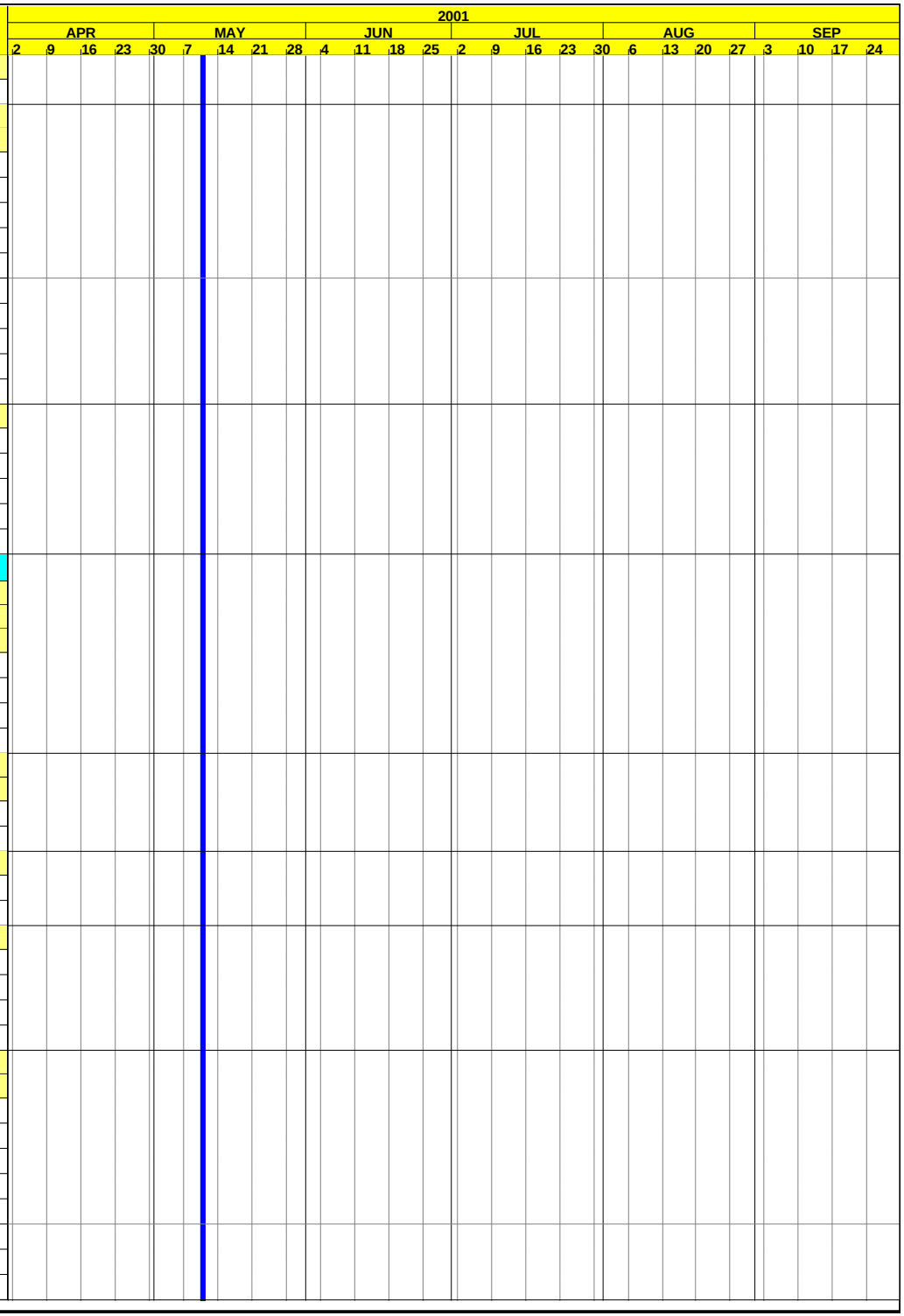
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
2 Science						
2.1 Science Support						
2.1 .1 SwRI Science Support						
SC0045	Study Phase SwRI Activities	85	100	01JUL99A	29OCT99A	
SC0050	PreLaunch SwRI Activities - Bridge	82	100	01NOV99A	29FEB00A	
SC0051	PreLaunch SwRI Activities - Phase C/D	823*	37	01MAR00A	30MAY03	0
SC0051B	PreLaunch SwRI Activities/JShbr - Phase C/D	337*	0	01FEB02*	30MAY03	0
SC0055	Cruise Phase SwRI Activities	85	0	02JUN03	30SEP03	0
SC0056	Cruise Phase Activities	62	0	01OCT03	31DEC03	0
SC0060	Science Operations Phase SwRI Activities	506	0	02JAN04	30DEC05	0
SC0065	Data Archival / Analysis Phase SwRI Activities	252	0	03JAN06	29DEC06	0
2.1 .2 U.S. Co-I's						
SC0100	Science - UArizona FY00-01	565*	38	07JUL00A	30SEP02	0
2.2 Science Team Meetings						
SC0200	ESA Science Working Group Meeting @ Nordvik	2	100	23JUN99A	24JUN99A	
SC0210	ESA Science Working Group Meeting @ Nordvik	2	100	04OCT99A	05OCT99A	
SC0220	ESA Science Working Group Meeting @ Nordvik	2	100	13JUN00A	14JUN00A	
SC0230	ESA Science Working Group Meeting @ ESTEC	3	0	20JUN01*	22JUN01	63
SC0240	ESA Science Working Group Meeting @ Nordvik	2	0	12JUN02*	13JUN02	75
SC0250	ESA Science Working Group Meeting @ Nordvik	2	0	11JUN03*	12JUN03	76
SC0260	ESA Science Working Group Meeting @ Nordvik	2	0	09JUN04*	10JUN04	78
SC0270	ESA Science Working Group Meeting @ Nordvik	2	0	15JUN05*	16JUN05	74
SC0280	ESA Science Working Group Meeting @ Nordvik	2	0	14JUN06*	15JUN06	74
3 Product Assurance						
3.1 Quality Assurance						
PA0100	QA / PA Support - Bridge	103	100	01OCT99A	29FEB00A	
PA0200	QA / PA Oversight	318*	100	01MAR00A	02MAR01A	
PA0300	QA / PA Tech Support	318*	100	01MAR00A	02MAR01A	
PA0400	QA / PA Oversight	318*	100	01MAR00A	02MAR01A	
RE1160	QA Support - PWA Dsn/Fab/Test	34*	100	26MAR01A		
RE1170	QA Support - Flt. Unit & FSU Assy & Testing	2*	100	17APR01A	11MAY01A	
3.2 Product Control						
PC0500	Control Stores Support - Bridge	103	100	01OCT99A	29FEB00A	
PC0600	Control Stores Support	318*	96	01MAR00A	31MAY01	0
3.3 Configuration Management						
PA0600	CDM Support - Bridge	103	100	01OCT99A	29FEB00A	
PA0650	CDM Support	318*	96	01MAR00A	31MAY01	0
4 Systems						
4.4 Test Plans / Procedures						
IM4210	IMA Functional TP #02853-IMA_FTP-01	5	100	07APR00A	18AUG00A	
ELS5168	ELS Functional TP #02853-ELS_FTP-01	75	100	24MAY00A	08SEP00A	
IM4214	IMA Detector Aliveness TP #02853-IMA_VAC-02	5	100	01SEP00A	29SEP00A	
5 Mechanical						
5.1 Mechanical Analyses						
ME1010	ELS Thermal Math Model	1	100	01MAR00A	01MAR00A	
ME1020	ELS Structural Analysis	5	100	01MAR00A	24APR00A	



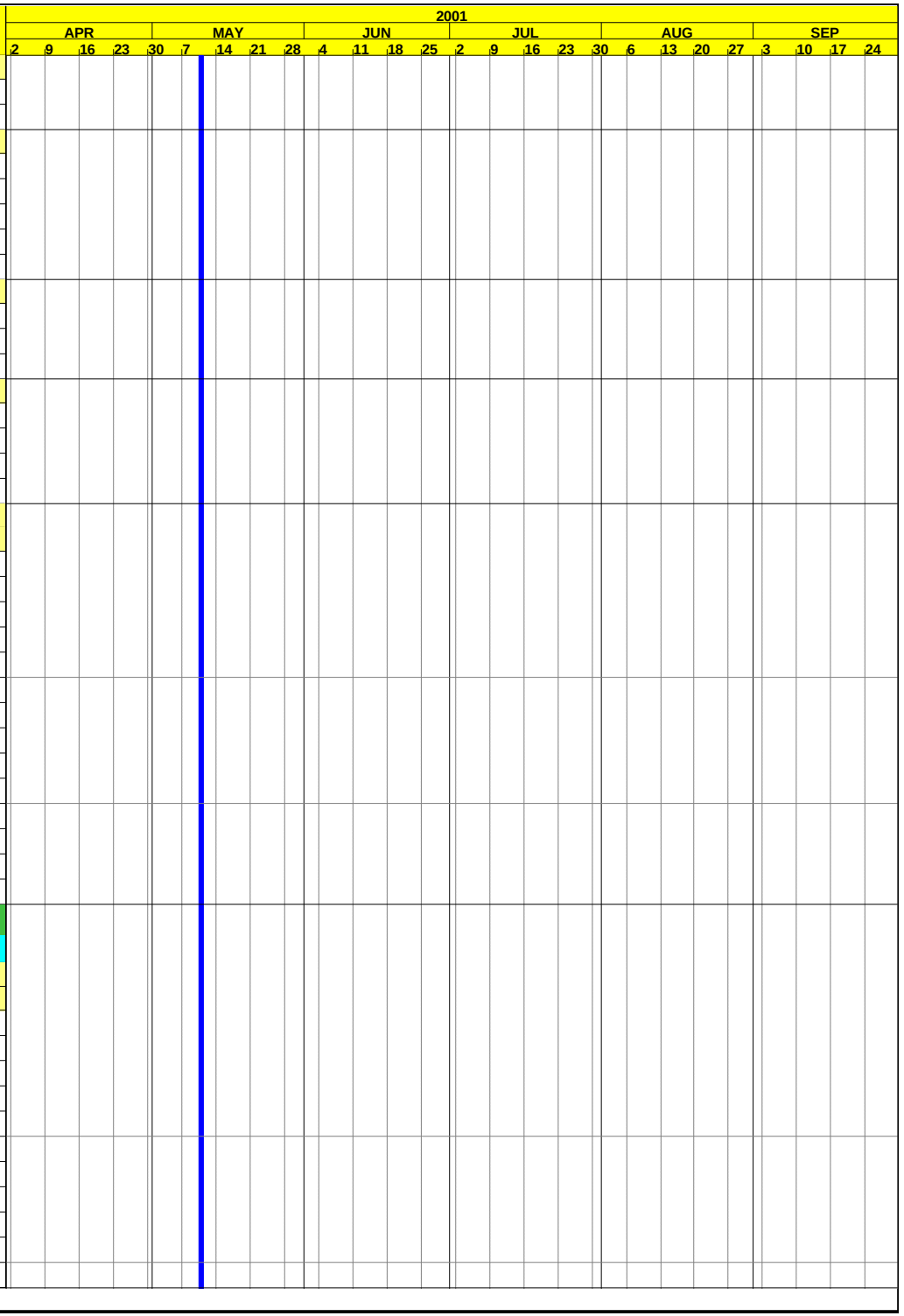
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
5.2 Mechanical Design						
5.2 .1 ELS Mechanical Design						
ME2105	Review & Update MEDUSA Design	20	100	09JUL99A	23JUL99A	
ME2110	Conceptual ELS Mechanical Layout	84	100	26JUL99A	19NOV99A	
ME2115	Generate ProEngineer Model	36	100	05NOV99A	10DEC99A	
ME2145	Alignment Study - Bridge	15	100	24JAN00A	29FEB00A	
ME2146	Alignment Study - Phase C	37	100	01MAR00A	01MAY00A	
ME2140	Update ELS ProEnginer Model	25	100	06MAR00A	07APR00A	
ME2117	Modify Drawings for STM	10	100	03MAY00A	24MAY00A	
ME2149	ELS Mechanical Design Mods	85*	100	01AUG00A	31OCT00A	
5.2 .1.1 ELS Housing Design						
ME2143	Design ELS Prototype Housing	5	100	15NOV99A	03DEC99A	
ME2144	ELS Proto Housing Detailed Drawing Package	10	100	06DEC99A	11JAN00A	
ME2148	ELS FU Housing Detailed Drawing Package	10	100	06MAR00A	13MAR00A	
ME2147	Develop ELS Housing MPS (for Plating Only)	2	100	23MAR00A	18AUG00A	
ME2150	ELS Mechanical Drawing Review & Signoff	3	100	21APR00A	25APR00A	
5.2 .1.2 ELS Mech Details Design						
ME2123	Design ELS Prototype Mech Details	5	100	22NOV99A	30NOV99A	
ME2124	ELS Proto Mech Details Detailed Drawing Package	57	100	06DEC99A	17FEB00A	
ME2126	ELS Proto Mech Parts Plating Fixtures	10	100	17JAN00A	28JAN00A	
ME2125	ELS Flt. Mechanical Design Mods	3	100	02MAR00A	10MAR00A	
ME2129	Develop ELS Mech Details MPS's	2	100	07MAR00A	13MAR00A	
ME2127	ELS Flt. Mech Detail Drawings	5	100	09MAR00A	13MAR00A	
5.2 .1.3 ELS MCP Holder Design						
ME2132	Design ELS Prototype MCP Holder	73	100	26OCT99A	11FEB00A	
ME2133	ELS Proto MCP Holder Detailed Drawing Package	20	100	07FEB00A	18FEB00A	
ME2135	ELS FM MCP Holder Design Mods	10	100	06MAR00A	10MAR00A	
ME2137	ELS Flt. MCP Holder Detail Drawings	10	100	20MAR00A	31MAR00A	
ME2139	Develop ELS Flt. MCP Holder MPS	2	100	23MAR00A	24APR00A	
5.2 .1.4 ELS MCP's						
ME2155	Develop MCP Specification	58	100	16AUG99A	24SEP99A	
ME2165	MCP Specification Released	0	100		15OCT99A	
ME2170	ELS MCP Procurement Spec.	21	100	18OCT99A	15NOV99A	
5.2 .2 IMA Mechanical Design						
ME2210	Design IMA Proto MCP Holder	60	100	01DEC99A	21FEB00A	
ME2225	IMA Flt. MCP Holder Design Mods	127	100	06MAR00A	09AUG00A	
ME2230	IMA Flt. MCP Holder Detail Drawings	112	100	07MAR00A	11AUG00A	
ME2235	Develop IMA Flt. MCP Holder MPS	10	100	09MAR00A	15MAR00A	
ME2152	IMA Mechanical Design Mods	85*	100	01AUG00A	31OCT00A	
5.3 Mechanical Procurement						
5.3 .1 ELS Materials						
ME3100	Procure ELS Raw Materials for Housing & Details	74	100	10JAN00A	10APR00A	
ME3110	Procure ELS Mechanical Piece Parts	74	100	10JAN00A	11APR00A	
ME3320	ELS Shipping Container(s) Procurement	10	100	24JUL00A	04AUG00A	
ME7000	ELS/IMA Contamination Procurement	10	100	01AUG00A	25AUG00A	
ME4315	Procure Thermal Blanket Materials	0	100	04AUG00A	03AUG00A	
5.3 .2 IMA Materials						
ME3200	Procure IMA Raw Materials for MCP Holder	37	100	01MAR00A	14APR00A	
ME3210	Procure IMA Mechanical Piece Parts	37	100	01MAR00A	14APR00A	
ME3310	IMA Shipping Container(s) Procurement	10	100	24JUL00A	04AUG00A	



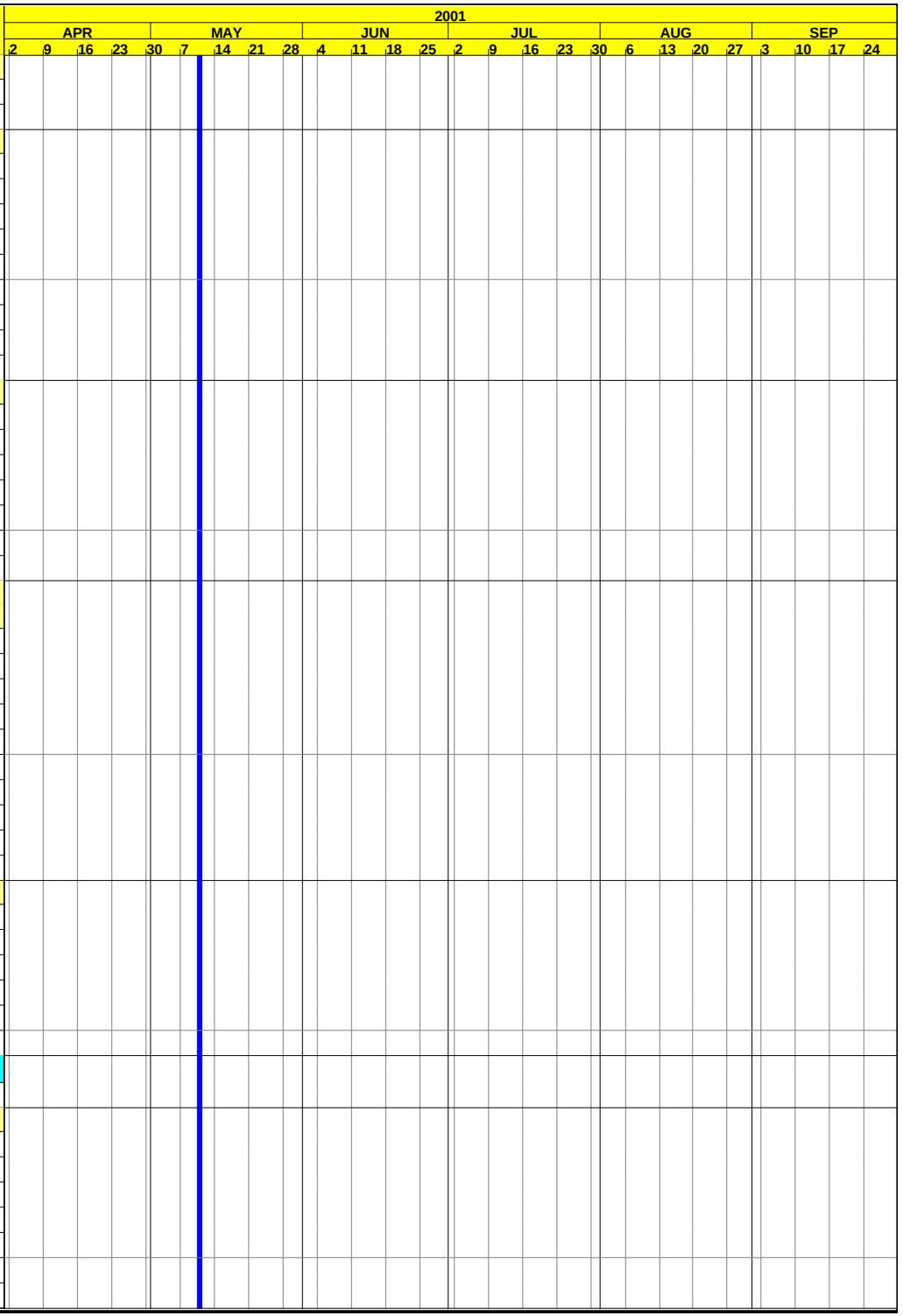
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
5.3 .3 Ni-63 Sources						
ME3305	Procure Ni-63 Sources	83	100	12JAN00A	05MAY00A	
5.3 .4 Sensor MCP's						
5.3 .4.1 ELS MCP's						
ME3500	Send out Chevron MCP Data Package for Qoutes	71	100	23AUG99A	17SEP99A	
ME3510	Review ELS Chevron MCP Bids & Award PO	5	100	04OCT99A	11NOV99A	
ME3505	Receive Qoutes for ELS Chevron MCP OV Select	0	100		18OCT99A	
ME3515	Procure ELS Proto Chevron MCP's(+NRE)	105	100	01DEC99A	02MAY00A	
ME3550	Procure ELS Flt. Chevron MCP (1st Set)	139	100	01DEC99A	02MAY00A	
ME3551	Procure ELS Flt. Chev MCP (Set 2+1 Failed Set)	158	100	01DEC99A	14JUL00A	
ME3555	Procure ELS Flt. Chevron MCP's (Sets 3-5)	212	100	01DEC99A	30NOV00A	
ME3525	Perform ELS Proto MCP Measuremts & Characterize	5	100	02MAY00A	05MAY00A	
ME3520	Receive ELS Proto Chevron MCP's (2 Mech Sets)	0	100		02MAY00A	
ME3560	Perform ELS Flt. MCP Measuremts & Characterize	75*	100	15JUN00A	15SEP00A	
5.3 .4.2 IMA MCP's						
ME3800	IRF Supplied IMA Proto MCP's Received	0	100		14FEB00A	
ME3805	Perform IMA Proto MCP Measuremts & Characterize	10	100	10APR00A	03MAY00A	
ME3850	IRF Supplied IMA Flt. MCP's & Samples Received	0	100		06JUL00A	
ME3860	Perform IMA Flt. MCP Measuremts & Characterize	10	100	29AUG00A	31AUG00A	
ME3851	Remaining IRF Supplied IMA Flt. MCP's Received	0	100		29AUG00A	
5.4 Mechanical Fabrication						
5.4 .1 ELS Mechanical Fabrication						
5.4 .1.1 ELS Structural Thermal Model (STM)						
5.4 .1.1 .1 ELS STM Housing						
ME4010	Machine ELS STM Housing	9	100	07JUL00A	19JUL00A	
ME4015	Plate & Finish ELS STM Housing	5	100	20JUL00A	26JUL00A	
ME4020	Install Htr's into ELS STM Housing	3	100	22AUG00A	23AUG00A	
ME4025	Test STM Housing w/Htr's	1	100	23AUG00A	23AUG00A	
5.4 .1.2 ELS Prototype						
5.4 .1.2 .1 ELS Housing						
ME4035	Machine ELS Proto Housing	10	100	12JAN00A	02FEB00A	
ME4038	Plate & Finish ELS Proto Housing	5	100	31JAN00A	03FEB00A	
5.4 .1.2 .2 ELS Mechanical Details						
ME4040	Machine ELS Proto Mech Details	125	100	12JAN00A	19MAY00A	
ME4042	Plate & Finish ELS Proto Mech Details	111	100	01FEB00A	19MAY00A	
5.4 .1.2 .3 ELS MCP Holder						
ME4044	Machine ELS Proto MCP Holder	19	100	15MAR00A	21APR00A	
ME4046	Plate & Finish ELS Proto MCP Holder	3	100	21APR00A	25APR00A	
ME4048	Fitcheck ELS Proto MCP Holder w/MCP Stack	2	100	03MAY00A	04MAY00A	
ME4820	Fitcheck ELS Proto MCP Holder w/MCP Stack	1	100	28JUL00A	28JUL00A	
5.4 .1.3 ELS Flight Unit (FU) / Flight Spare Unit (FSU)						
5.4 .1.3 .1 ELS FU/FSU Housing						
ME4110A	Machine ELS FSU Housing	71*	100	26MAY00A	01SEP00A	
ME4120A	Plate & Finish ELS FSU Housings	3	100	05SEP00A	07SEP00A	
ME4142A	ELS FSU Housings UV Coating	3	100	11SEP00A	13SEP00A	
ME4143A	ELS FSU IDP, Insul, & Top Hat UV Coating	3	100	11SEP00A	13SEP00A	
ME4110B	ELS FU Housing Rough Machining	8*	100	21SEP00A	02NOV00A	
ME4110B10	ELS FU Housing Fine Machining (Hyperfine)	51	100	03OCT00A	14DEC00A	
ME4130C10	ELS FU DP & Insulator Fine Machining (Hyperfine)	48	100	06OCT00A	14DEC00A	
ME4120B	Plate & Finish ELS FU Pieces @ SwRI	5	100	15DEC00A	21DEC00A	



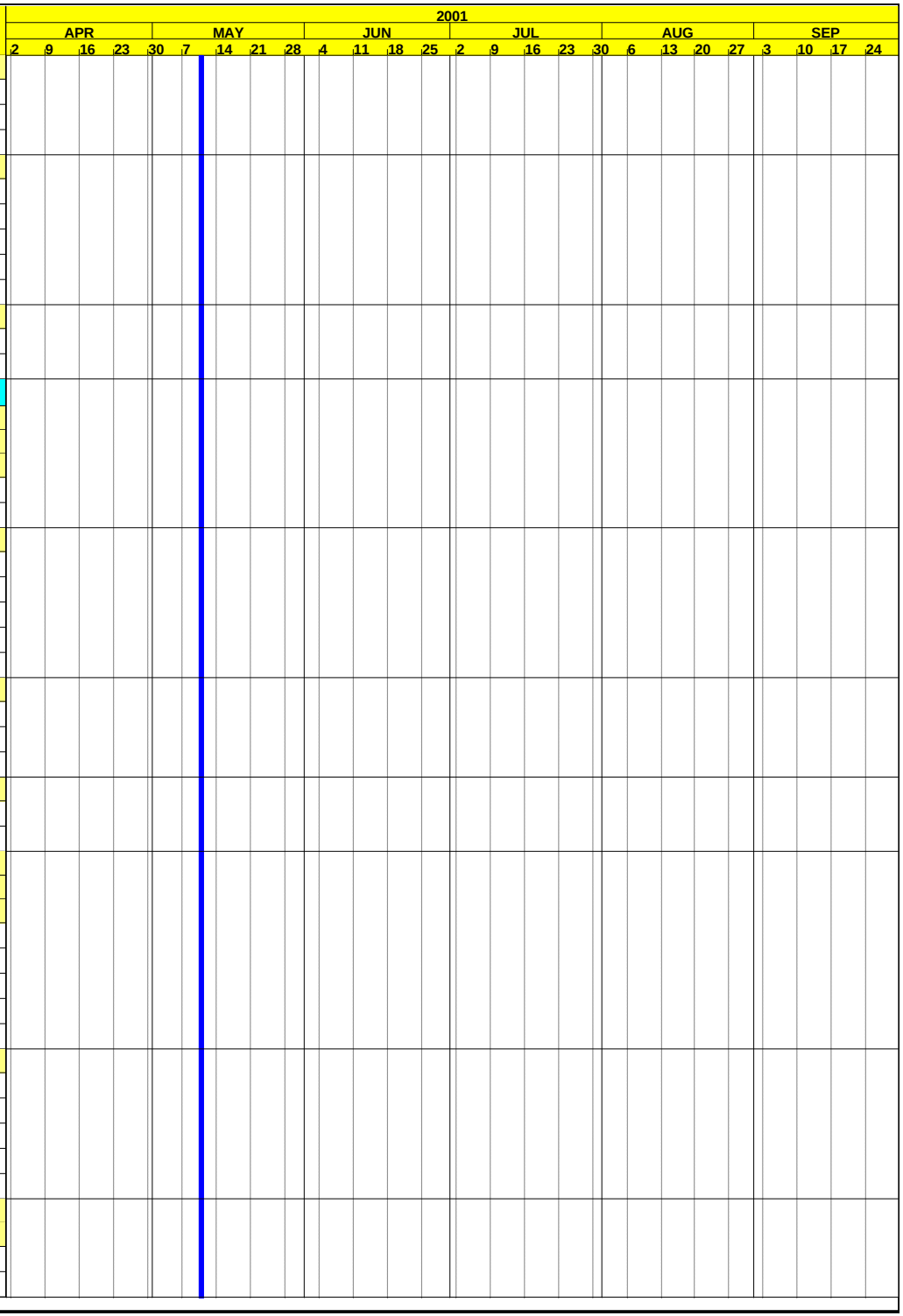
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
5.4 .1.3 .1 ELS FU/FSU Housing						
ME4143B	Ship/UV Coat/Return ELS FU IDP, Insul, & Top Hat	16	100	26DEC00A	17JAN01A	
ME4142B	Ship/UV Coat/Return ELS FU Housing	16	100	03JAN01A	24JAN01A	
5.4 .1.3 .2 ELS Mechanical Details						
ME4130B	Machine ELS FU/FSU Other Detail Parts	99*	100	17APR00A	11AUG00A	
ME4135B	Plate & Finish ELS FU/FSU Other Details	88	100	28APR00A	21JUL00A	
ME4130A	Machine ELS FSU IDP,TopHat ,Insulator Details	71*	100	26MAY00A	06SEP00A	
ME4135A	Plate & Fin ELS FSU IDP,Insulator, & Top Hat	9*	100	25AUG00A	07SEP00A	
ME4130C	ELS FU IDP & Insulator Rough Machining	11*	100	21SEP00A	10NOV00A	
5.4 .1.3 .3 ELS MCP Holder						
ME4150	Machine ELS FU/FSU MCP Holder	10	100	21APR00A	01MAY00A	
ME4155	Plate & Finish ELS FU/FSU MCP Holder	3	100	02MAY00A	04MAY00A	
ME4160	Fitcheck ELS FU/FSU MCP Holder w/MCP Stack	2	100	05MAY00A	05MAY00A	
5.4 .2 ELS Thermal Blankets						
ME4320	Fabricate ELS Thermal Blanket(s)	4	100	03JUL00A	03JUL00A	
ME4325	Fitcheck ELS Thermal Blankets w/STM/FU/FSU	1	100	03JUL00A	03JUL00A	
ME4305	Design MLI/Thermal Blankets for ELS	5	100	07JUL00A	13JUL00A	
ME4310	Thermal Blanket(s) Detail Drawings	5	100	14JUL00A	20JUL00A	
5.4 .3 IMA Mechanical Fabrication						
5.4 .3.1 IMA MCP Holder						
ME4805	Machine IMA Proto MCP Holder	26	100	17MAR00A	21APR00A	
ME4850	Machine IMA Flt. MCP Holder	25	100	17MAR00A	21APR00A	
ME4825	IMA Proto MCP/Holder Fit Check	3	100	19APR00A	03MAY00A	
ME4815	Plate/Finish IMA Proto MCP Holder	5	100	21APR00A	27APR00A	
ME4860	Plate/Finish IMA Flt. MCP Holder	5	100	21APR00A	27APR00A	
ME4870	IMA Flt. MCP/Holder Fit Check	3	100	03MAY00A	03MAY00A	
ME4842	Procure Strain Gauges (Div.18)	5	100	07JUL00A	13JUL00A	
ME4817	Re-Machine IMA Proto MCP Holder	2	100	24JUL00A	27JUL00A	
ME4818	Plate/Finish IMA Proto MCP Holder	2	100	27JUL00A	28JUL00A	
ME4845	ReAssemble IMA	1	100	04AUG00A	04AUG00A	
ME4872	Re-Machine IMA Flt. MCP Holder	0	100	04AUG00A	22NOV00A	
ME4874	Plate/Finish Revised IMA Flt. MCP Holder	0	100	04AUG00A	03AUG00A	
ME4876	Revised IMA Flt. MCP/Holder Fit Check	0	100	04AUG00A	04AUG00A	
ME4848	Test IMA Mech w/Strain Gauges (Div.18)	1	100	07AUG00A	07AUG00A	
6 Electrical						
6.2 Electrical Design						
6.2 .1 ELS Electrical Design						
6.2 .1.1 ELS Anode/Amplifier Design						
EL1210	Prelim ELS Anode/Amp PWA Design	20	100	30SEP99A	27OCT99A	
EL1225	Prelim ELS Anode/Amp Design Layout	10	100	30SEP99A	29OCT99A	
EL1240	Prototype ELS Anode Design Details/Packaging	10	100	15OCT99A	10DEC99A	
EL1230	Prelim ELS Anode/Amp PWA IPL	5	100	03DEC99A	09DEC99A	
EL1245	Prelim ELS Anode/Amp Detail/Fab Drawings	10	100	06DEC99A	13DEC99A	
EL1220	Prelim ELS Anode/Amp Design Peer Review	2	100	07DEC99A	08DEC99A	
EL1250	ELS Anode/Amp Design Mods	10	100	27MAR00A	28MAR00A	
EL1255	Flt. ELS Anode/Amp PWA IPL	10	100	27MAR00A	28MAR00A	
EL1258	Flt. ELS Anode/Amp Design Layout	5	100	27MAR00A	28MAR00A	
EL1260	Flt. ELS Anode/Amp Design Details/Packaging	10	100	27MAR00A	28MAR00A	
EL1265	Flt. ELS Anode/Amp Detail/Fab Drawing	10	100	27MAR00A	28MAR00A	



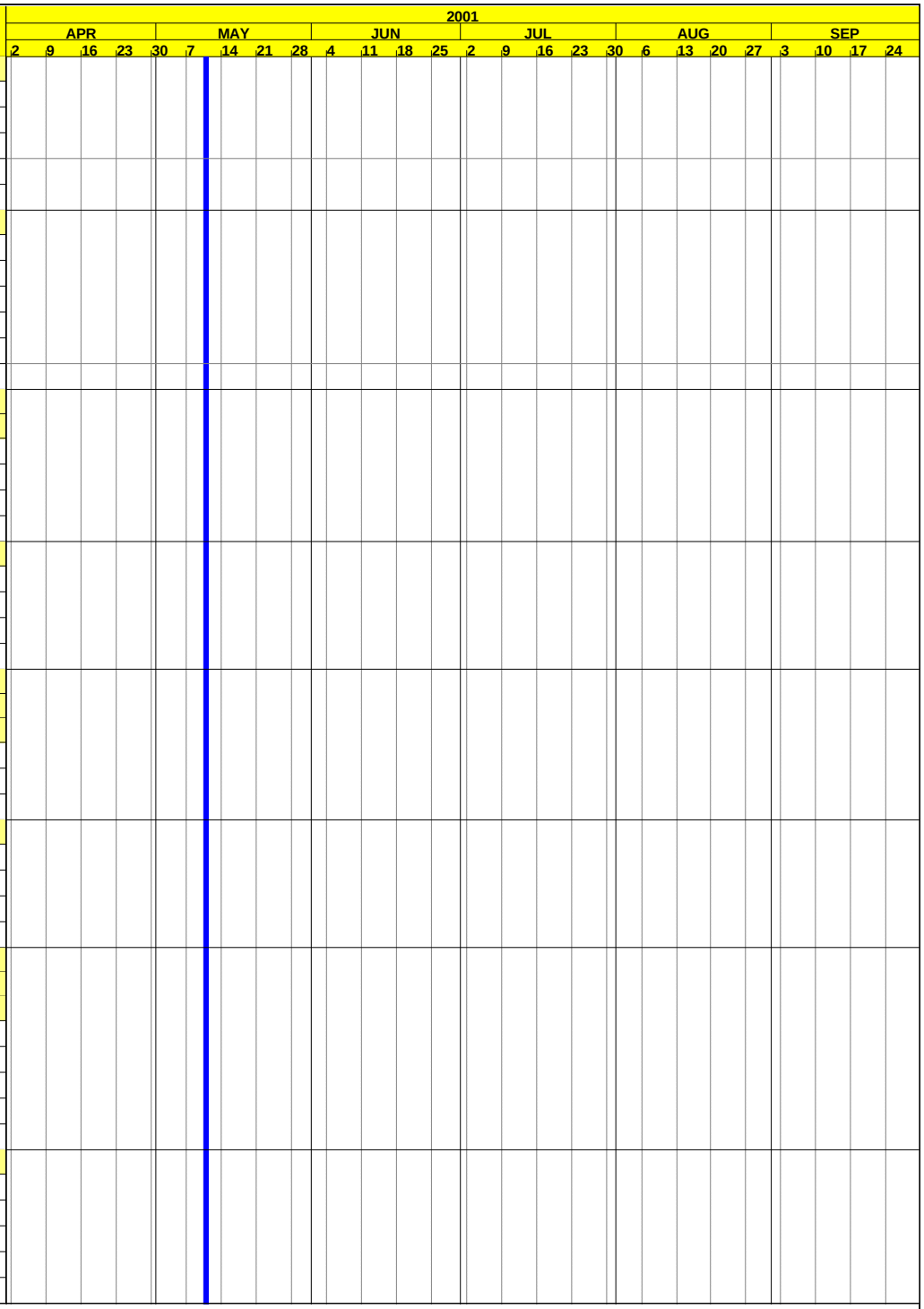
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
6.2 .1.1 ELS Anode/Amplifier Design						
EL1268	Flt. ELS Anode/Amp Detail/Fab Drawing Mods	1	100	21APR00A	28APR00A	
EL1270	Develop ELS Flt. Anode/Amp PWA MPS	2	100	21APR00A	24APR00A	
6.2 .1.2 ELS HVPS Design						
EL1310	Prelim HVPS PWA Design	58	100	16AUG99A	20SEP99A	
EL1335	Prototype HVPS Board Layout	71	100	23AUG99A	01DEC99A	
EL1330	Prelim HVPS PWA IPL	2	100	01OCT99A	04OCT99A	
EL1340	Prototype HVPS Design Details/Packaging	38	100	18OCT99A	17DEC99A	
EL1360	HVPS Flt. Design Details/Packaging	37	100	06MAR00A	28MAR00A	
EL1350	HVPS Design Mods	10	100	27MAR00A	28MAR00A	
EL1355	Flt. HVPS PWA IPL	10	100	28MAR00A	28MAR00A	
EL1365	Flt. ELS HVPS Detail/Fab Drawing Mods	10	100	21APR00A	19MAY00A	
EL1370	Develop Flt. HVPS PWA MPS	2	100	17JUL00A	18JUL00A	
6.2 .1.3 ELS Interconnects Design						
EL1420	ELS Prelim Harness Design	15	100	31DEC99A	12JAN00A	
EL1440	ELS Proto Harness Routing	5	100	06MAR00A	16MAR00A	
EL1435	ELS Prelim Harness Detail Drawings	5	100	08MAR00A	16MAR00A	
EL1450	ELS FU Harness Design Mods	2	100	21APR00A	24APR00A	
EL1455	ELS Final Flt. Harness Detail Drawings	5	100	25APR00A	01MAY00A	
EL1460	Develop Flt. Harness MPS	2	100	02MAY00A	03MAY00A	
EL1390	STM Electrical Design	2	100	05MAY00A	07JUL00A	
6.2 .2 IMA Electrical Design						
6.2 .2.1 IMA Anode Design						
EL1510	Prelim IMA Anode PWA Design	20	100	13DEC99A	06JAN00A	
EL1540	Prototype IMA Anode Design Details/Packaging	23	100	11JAN00A	04FEB00A	
EL1535	Prelim IMA Anode/Amp Design Layout	20	100	24JAN00A	18FEB00A	
EL1530	Prelim IMA Anode PWA IPL	9	100	01FEB00A	11FEB00A	
EL1520	Prelim IMA Anode Design Peer Review	2	100	11FEB00A	14FEB00A	
EL1570	Develop IMA Flt. Anode PWA MPS	2	100	21APR00A	24APR00A	
EL1550	IMA Anode Design Mods	10	100	24APR00A	24APR00A	
EL1552	Flt. IMA Anode/Amp Design Layout	5	100	24APR00A	24APR00A	
EL1555	IMA Flt. Anode PWA IPL	10	100	24APR00A	24APR00A	
EL1560	IMA Flt. Anode Design Details/Packaging	10	100	24APR00A	24APR00A	
6.2 .2.2 IMA Interconnects Design						
EL1810	IMA Prelim Harness Design	5	100	12JAN00A	13MAR00A	
EL1815	IMA Proto Harness Routing	5	100	12JAN00A	21FEB00A	
EL1820	IMA Prelim Harness Detail Drawings	5	100	10MAR00A	16MAR00A	
EL1825	IMA FU Harness Design Mods	2	100	20JUN00A	21JUN00A	
EL1830	IMA Final Flt. Harness Detail Drawings	2	100	22JUN00A	23JUN00A	
EL1835	Develop IMA Flt. Harness MPS	2	100	26JUN00A	27JUN00A	
6.3 Electrical Procurement						
EL2135	Prepare PRs for Long Lead EEE Parts	10	100	02DEC99A	07JAN00A	
6.3 .1 ELS Electrical Procurement						
EL2105	Procure ELS Proto HVPS Components	20	100	15NOV99A	24NOV99A	
EL2115	Procure ELS Proto Anode Components	20	100	15NOV99A	28DEC99A	
EL2150	Procure ELS HVPS EEE Components	80	100	15NOV99A	04FEB00A	
EL2140	Procure ELS Anode EEE Components	80	100	06DEC99A	18FEB00A	
EL2225	Procure ELS HVPS Proto PWBs	10	100	13DEC99A	28DEC99A	
EL2320	Procure ELS HVPS FU/FSU PWBs	10	100	13DEC99A	28DEC99A	
EL2210	Procure ELS ANODE Proto PWBs	13	100	15DEC99A	04JAN00A	



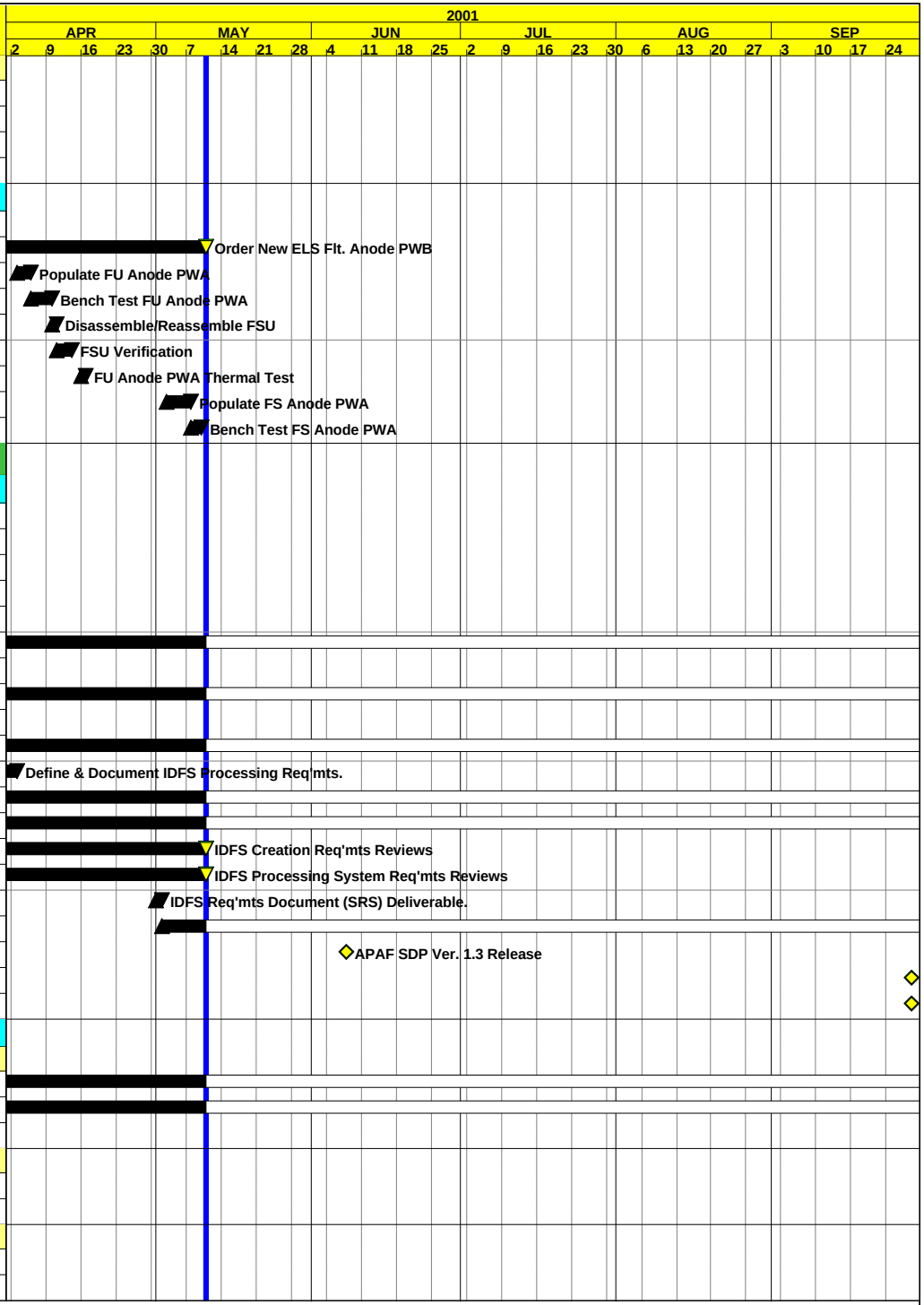
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
6.3 .1 ELS Electrical Procurement						
EL2305	Procure ELS ANODE FU/FSU PWBs	10	100	15DEC99A	04JAN00A	
EL2300	Procure ELS FU/FSU Electrical Components	30	100	09MAR00A	21JUL00A	
EL2130	Procure ELS STM Electrical Components	10	100	05JUN00A	16JUN00A	
6.3 .2 IMA Electrical Procurement						
EL2425	Procure IMA ANODE Proto Components/EEE	40	100	01DEC99A	18FEB00A	
EL2410	Procure IMA Anode EEE Components	80	100	10JAN00A	18FEB00A	
EL2420	Procure IMA ANODE Flt. PWBs	10	100	24FEB00A	14MAR00A	
EL2430	Procure IMA ANODE Proto PWBs	14	100	24FEB00A	14MAR00A	
EL2415	Procure IMA Flt. Electrical Components	40	100	28FEB00A	29MAR00A	
6.3 .3 IRF / ESA Supplied Parts - MOCAD Amplifiers						
EL2705	Receive EM MOCAD Amplifiers from IRF	0	100		30AUG99A	
EL2600	Receive FLT. MOCAD Amplifiers from IRF	50	100	11FEB00A	18FEB00A	
6.4 Electrical Fabrication						
6.4 .1 ELS Electrical Fabrication						
6.4 .1.1 ELS Prototype Fabrication						
6.4 .1.1 .1 ELS Proto Anode/Amp Board						
EL3305	Prototype ELS Anode/Amp Fabrication	15	100	31DEC99A	14JAN00A	
EL3315	Prototype ELS Anode/AmpFEE Bench Test	20	100	13JAN00A	14FEB00A	
6.4 .1.1 .2 Proto HVPS						
EL3505	Prototype ELS HVPS Fabrication	41	100	31DEC99A	25FEB00A	
EL3515	Prototype ELS HVPS Bench Test	31	100	17JAN00A	28FEB00A	
EL3510	Fitcheck Proto ELS HVPS into Housing	1	100	10MAR00A	10MAR00A	
EL3520	ELS Proto FEE/Amp & HVPS Eng. Chk Out	5	100	15MAR00A	20MAR00A	
EL3525	ELS Proto HVPS Paralyene Coating	5	100	14APR00A	21APR00A	
6.4 .1.1 .3 ELS Proto Interconnects						
EL3605	ELS Proto Harness Fabrication	0	100	07MAR00A	20MAR00A	
EL3610	ELS Proto Harness Fit Check in Housing	8	100	09MAR00A	20MAR00A	
EL3620	ELS Proto Harness Testing	1	100	10MAR00A	10MAR00A	
6.4 .1.2 ELS STM Heater / Resistor Elements Fabrication						
EL3670	ELS STM Htr/Resistor Selection	1	100	02JUN00A	02JUN00A	
EL3690	Bag ELS STM Htr/Resistor / to Ctrl Stores	0	100	21AUG00A	21AUG00A	
6.4 .1.3 ELS Flight Electronics Fabrication						
6.4 .1.3 .1 ELS Flight Anode/Amp Board						
6.4 .1.3 .1.1 ELS FU Anode/Amp Board						
EL3770	Assemble ELS FU Anode/Amp PWA	5	100	31JUL00A	04AUG00A	
EL3775	Bench Test ELS FU Anode/Amp PWA	2	100	04AUG00A	23AUG00A	
EL3778	Thermal Test ELS FU Anode/Amp PWA	2	100	01SEP00A	05SEP00A	
EL3780	Document ELS FU Anode/Amp PWA Inspect & Test	1	100	06SEP00A	06SEP00A	
EL3785	Deliver ELS FU Anode/Amp PWAs to Ctrl Stores	0	100	07SEP00A	06SEP00A	
6.4 .1.3 .1.2 ELS FSU Anode/Amp Board						
EL3790	Assemble ELS FSU Anode/Amp PWA	5	100	31JUL00A	04AUG00A	
EL3795	Bench Test ELS FSU Anode/Amp PWA	2	100	04AUG00A	07AUG00A	
EL3798	Thermal Test ELS FSU Anode/Amp PWA	2	100	01SEP00A	05SEP00A	
EL3800	Document ELS FSU Anode/Amp PWA Inspect &	2	100	06SEP00A	07SEP00A	
EL3805	Deliver ELS FSU Anode/Amp PWAs to Ctrl Stores	0	100	07SEP00A	07SEP00A	
6.4 .1.3 .2 ELS Flight HVPS Fab						
6.4 .1.3 .2.1 ELS FU HVPS						
EL3815	Develop Test Software	10	100	07JUL00A	20JUL00A	
EL3820	Assemble ELS FSU HVPS PWA	14*	100	17JUL00A	28JUL00A	



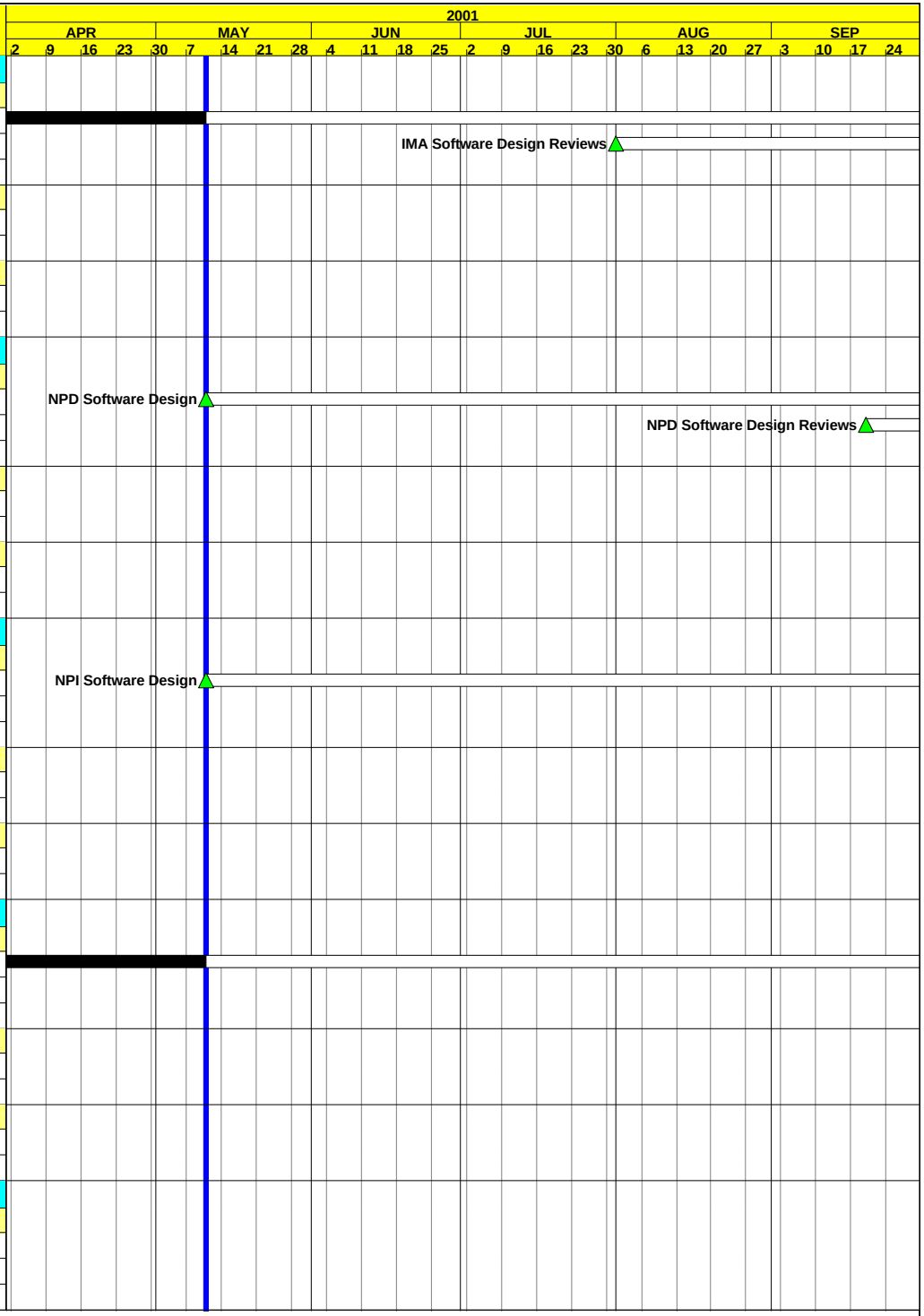
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
6.4 .1.3 .2.1 ELS FU HVPS						
EL3825	Bench Test ELS FSU HVPS	11*	100	02AUG00A	31AUG00A	
EL3854	ELS FSU HVPS Paralyene Coating	5	100	17AUG00A	23AUG00A	
EL3828	Thermal Test ELS FSU HVPS PWA	2	100	30AUG00A	01SEP00A	
EL3830	Document ELS FSU HVPS PWA Inspect & Test	1	100	31AUG00A	01SEP00A	
EL3835	ELS FSU HVPS to Control Stores	0	100		01SEP00A	
6.4 .1.3 .2.2 ELS FSU HVPS						
EL3845	Assemble ELS FU HVPS PWA	45*	100	17JUL00A	22SEP00A	
EL3850	Bench Test ELS FU HVPS	28*	100	21AUG00A	29SEP00A	
EL3856	ELS FU HVPS Paralyene Coating	5	100	11SEP00A	15SEP00A	
EL3840	Document ELS FU HVPS PWA Inspect & Test	38*	100	20SEP00A	21SEP00A	
EL3852	Thermal Test ELS FU HVPS PWA	2	100	21SEP00A	22SEP00A	
EL3855	ELS FU HVPS to Control Stores	0	100		22SEP00A	
6.4 .1.3 .3 ELS Flight Interconnects Fab						
6.4 .1.3 .3.1 ELS FU Interconnects Fab						
EL3870	ELS FU Harness Fabrication	1	100	15AUG00A	15AUG00A	
EL3875	ELS FU Harness Fit Check in Housing	1	100	15AUG00A	15AUG00A	
EL3885	ELS FU Harness Testing	7	100	16AUG00A	16AUG00A	
EL3890	Document ELS FU Harness Inspect & Test	2	100	17AUG00A	17AUG00A	
6.4 .1.3 .3.2 ELS FSU Interconnects Fab						
EL3900	ELS FSU Harness Fabrication	1	100	16AUG00A	16AUG00A	
EL3905	ELS FSU Harness Fit Check in Housing	1	100	17AUG00A	17AUG00A	
EL3915	ELS FSU Harness Testing	1	100	18AUG00A	18AUG00A	
EL3920	Document ELS FSU Harness Inspect & Test	2	100	18AUG00A	18AUG00A	
6.4 .2 IMA Electrical Fabrication						
6.4 .2.1 IMA Prototype Fabrication						
6.4 .2.1 .1 IMA Proto Anode Board Fab						
IMA4105	Prototype IMA Anode/FEE Fabrication	10	100	15MAR00A	28MAR00A	
IMA4115	Prototype IMA FEE Bench Testing	5	100	28MAR00A	03APR00A	
IMA4120	Prototype IMA FEE Thermal Testing	5	100	23MAY00A	26MAY00A	
6.4 .2.1 .2 IMA Proto Interconnects Fab						
IMA4205	IMA Proto Harness Fabrication	10	100	21MAR00A	03APR00A	
IM4215	IMA Proto Harness Potting & Bakeout	5	100	03APR00A	05APR00A	
IMA4220	IMA Proto Harness Testing	1	100	21APR00A	21APR00A	
IMA4225	IMA Proto Harness Install & Stake	1	100	22MAY00A	22MAY00A	
6.4 .2.2 IMA Flight Electronics Fabrication						
6.4 .2.2 .1 IMA Flight Anode Board						
6.4 .2.2 .1.1 IMA Flt. Anode						
IM4510	Assemble IMA Flt/FS Anode PWA	22*	100	28JUN00A	04AUG00A	
IM4515	Bench Test IMA Flt. FEE	3	100	28AUG00A	30AUG00A	
IM4518	Thermal Test IMA Flt. Anode/FEE PWA	2	100	31AUG00A	01SEP00A	
IM4520	Document IMA Flt. FEE Inspect & Test	1	100	31AUG00A	31AUG00A	
IM4525	Deliver IMA Flt. FEE PWAs to Ctrl Stores	12	100	01SEP00A	01SEP00A	
6.4 .2.2 .1.2 IMA Flt. Spare Anode						
IM4570	Assemble IMA Flt./FS Logic PWA	3	100	07AUG00A	23AUG00A	
IM4575	Bench Test IMA Flt. Spare FEE	3	100	28AUG00A	30AUG00A	
IM4578	Thermal Test IMA Flt. Spare Anode/FEE PWA	2	100	05SEP00A	08SEP00A	
IM4580	Document IMA Flt. Spare FEE Inspect & Test	1	100	06SEP00A	11SEP00A	
IM4585	Deliver IMA Flt. Spare FEE PWAs to Ctrl Stores	4	100	11SEP00A	11SEP00A	



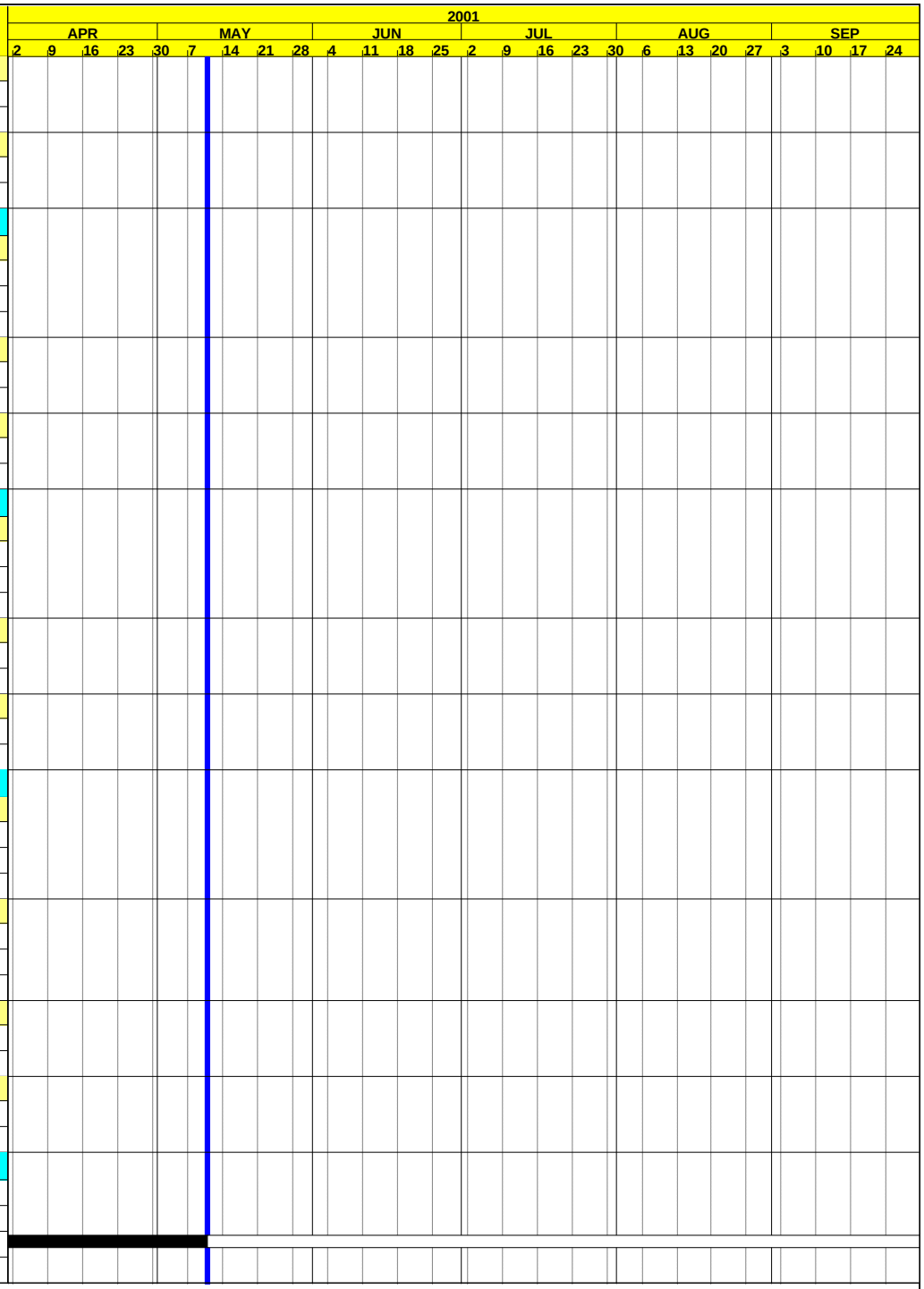
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
6.4 .2.2 .2 IMA Flight Interconnects Fab						
IM4605	IMA Flt. Intrcncts Fabrication (Flt. + Spare)	1	100	14AUG00A	18AUG00A	
IM4615	IMA Flt. Intrcncts Potting & Bakeout	14	100	18AUG00A	25AUG00A	
IM4620	IMA Flt. Intrcncts Testing	1	100	18AUG00A	18AUG00A	
IM4625	Document IMA Flt. Intrcncts Inspect & Test	1	100	18AUG00A	18AUG00A	
6.5 ELS FU/FSU Anode Rebuild						
RE1010	ELS Flt. Anode Bd Layout Mods	1	100	16MAR01A	16MAR01A	
RE1020	Order New ELS Flt. Anode PWB	39*	100	19MAR01A		
RE1030	Populate FU Anode PWA	3	100	03APR01A	05APR01A	
RE1050	Bench Test FU Anode PWA	2	100	06APR01A	09APR01A	
RE1070	Disassemble/Reassemble FSU	1	100	10APR01A	10APR01A	
RE1090	FSU Verification	3	100	11APR01A	13APR01A	
RE1080	FU Anode PWA Thermal Test	1	100	16APR01A	16APR01A	
RE1040	Populate FS Anode PWA	3	100	03MAY01A	07MAY01A	
RE1060	Bench Test FS Anode PWA	2	100	08MAY01A	09MAY01A	
7 Software						
7.01 Software Requirements						
SW0005	ASPERA-3 Software Develop Plan (SDP)	61	100	01OCT99A	17DEC99A	
SW0110	Revise ITAR Guidelines for Int'l Data Xfer	70	100	01OCT99A	04JAN00A	
SW0115	Devise WWW Security for Data & S/W Xfer	41	100	02NOV99A	04JAN00A	
SW0120	Create Web Based IDFS Tools - Bridge	81	100	02NOV99A	29FEB00A	
SW0122	Program Data Management Plan (PDMP) - Bridge	72	100	15NOV99A	29FEB00A	
SW0175	APAF SDP Updates & Maintenance	1,027*	35	08DEC99A	31DEC03	0
SW0125	Define & Document IDFS Creation Req'mts.	37	100	10JAN00A	29FEB00A	
SW0120C	Create Web Based IDFS Tools	464*	66	01MAR00A	31DEC01	0
SW0122C	Program Data Management Plan (PDMP)	48	100	01MAR00A	05MAY00A	
SW0125C	Define & Document IDFS Creation Req'mts.	464*	66	01MAR00A	31DEC01	0
SW0130	Define & Document IDFS Processing Req'mts.	144	100	30MAY00A	02APR01A	
SW0165	DSID Updates & Maintenance	334*	52	01SEP00A	31DEC01	0
SW0185	PDMP Updates & Maintenance	840*	21	01SEP00A	31DEC03	0
SW0135	IDFS Creation Req'mts Reviews	72*	100	31JAN01A		
SW0140	IDFS Processing System Req'mts Reviews	72*	100	31JAN01A		
SW0145	IDFS Req'mts Document (SRS) Deliverable.	0	100	01MAY01A	01MAY01A	
SW0155	SRS Updates & Maintenance	167*	4	02MAY01A	31DEC01	0
SW0177	APAF SDP Ver. 1.3 Release	0	0		07JUN01*	0
SW0167	DSID Ver. 1.1 Release	0	0		28SEP01*	0
SW0187	PDMP Ver. 1.2 Release	0	0		28SEP01*	0
7.02 ELS IDFS Software Development						
7.02.1 ELS IDFS Software Design						
SW0205	ELS Software Design	259*	53	24OCT00A	31OCT01	322
SW0210	ELS Software Design Reviews	169*	28	06MAR01A	31OCT01	322
SW0215	ELS Software Design Validation	3	0	01NOV01	05NOV01	322
7.02.2 ELS IDFS Software Implementation						
SW0220	ELS Software Coding	58	0	06NOV01	31JAN02	322
SW0225	ELS Code Reviews	32	0	14DEC01	31JAN02	322
7.02.3 ELS IDFS Software Test						
SW0230	ELS IDFS Test Plan Development	54	0	07JAN02*	21MAR02	287
SW0235	ELS IDFS Software Verification Testing	6	0	22MAR02	29MAR02	287



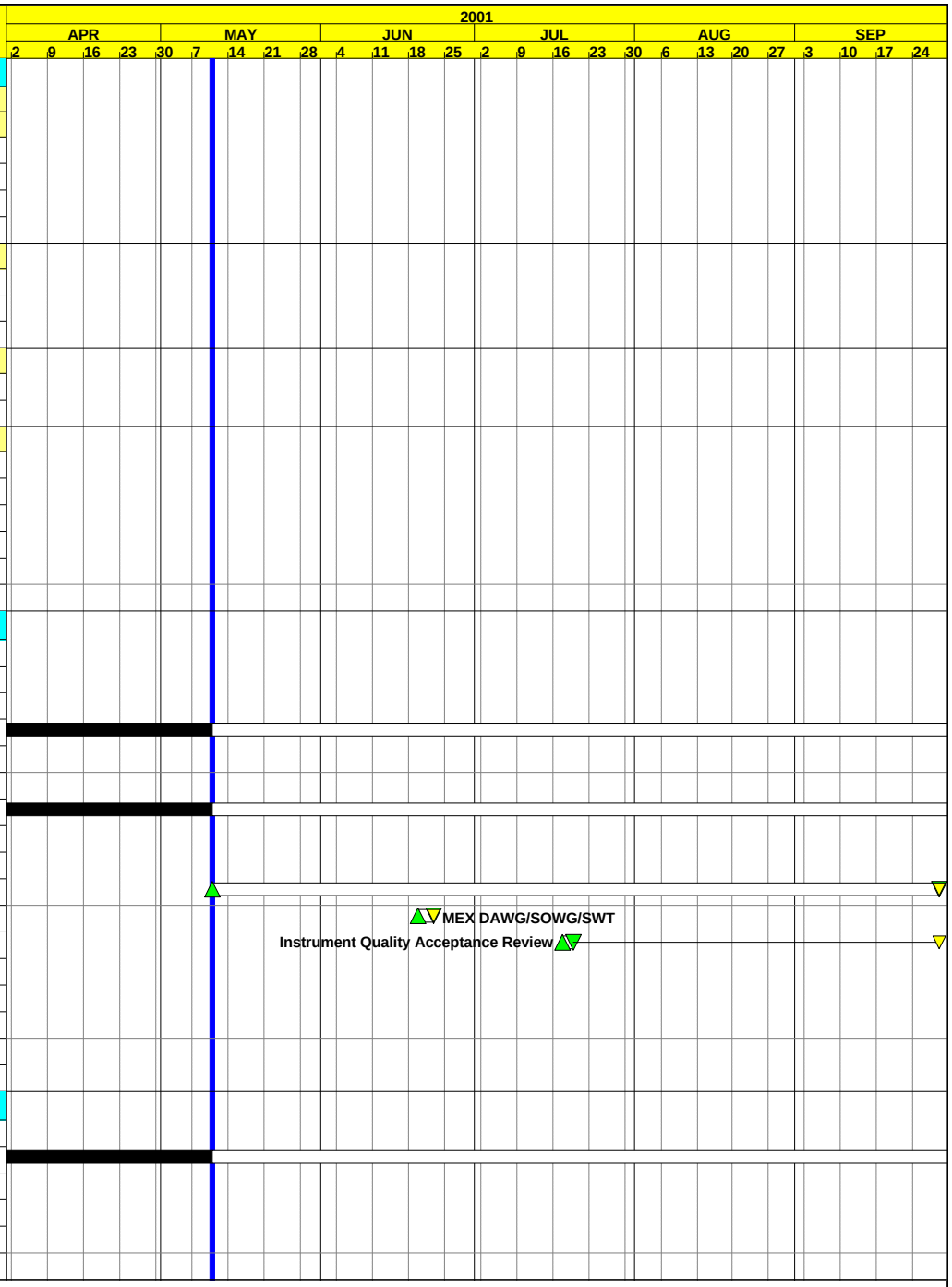
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
7.03 IMA IDFS Software Development						
7.03.1 IMA IDFS Software Design						
SW0305	IMA Software Design	259*	53	24OCT00A	31OCT01	201
SW0310	IMA Software Design Reviews	65	0	01AUG01	31OCT01	201
SW0315	IMA Software Design Validation	3	0	01NOV01	05NOV01	201
7.03.2 IMA IDFS Software Implementation						
SW0320	IMA Software Coding	129	0	06NOV01	10MAY02	235
SW0325	IMA Code Reviews	45	0	11MAR02	10MAY02	235
7.03.3 IMA IDFS Software Test						
SW0330	IMA IDFS Test Plan Development	64	0	01APR02	28JUN02	201
SW0335	IMA IDFS Software Verification Testing	22	0	01JUL02	31JUL02	201
7.04 NPD IDFS Software Development						
7.04.1 NPD IDFS Software Design						
SW0405	NPD Software Design	136	0	11MAY01	21NOV01	151
SW0410	NPD Software Design Reviews	45	0	20SEP01	21NOV01	151
SW0415	NPD Software Design Validation	5	0	26NOV01	30NOV01	151
7.04.2 NPD IDFS Software Implementation						
SW0420	NPD Software Coding	125	0	03DEC01	30MAY02	219
SW0425	NPD Code Reviews	16	0	15MAY02	06JUN02	219
7.04.3 NPD IDFS Software Test						
SW0430	NPD IDFS Test Plan Development	71	0	04JUN02	12SEP02	151
SW0435	NPD IDFS Software Verification Testing	20	0	13SEP02	10OCT02	151
7.05 NPI IDFS Software Development						
7.05.1 NPI IDFS Software Design						
SW0505	NPI Software Design	150	0	11MAY01	13DEC01	241
SW0510	NPI Software Design Reviews	43	0	12OCT01	13DEC01	241
SW0515	NPI Software Design Validation	1	0	13DEC01	13DEC01	241
7.05.2 NPI IDFS Software Implementation						
SW0520	NPI Software Coding	61	0	17JAN02	11APR02	264
SW0525	NPI Code Reviews	6	0	17APR02	24APR02	264
7.05.3 NPI IDFS Software Test						
SW0530	NPI IDFS Test Plan Development	33	0	11APR02	28MAY02	241
SW0535	NPI IDFS Software Verification Testing	5	0	29MAY02	04JUN02	241
7.06 ASPERA DPU (Health &Safety) IDFS S/W Development						
7.06.1 ASPERA DPU IDFS Software Design						
SW0605	ASPERA DPU Software Design	418*	32	30OCT00A	25JUN02	160
SW0610	ASPERA DPU Software Design Reviews	20	0	10MAY02	07JUN02	172
SW0615	ASPERA DPU Software Design Validation	1	0	26JUN02	26JUN02	160
7.06.2 ASPERA DPU IDFS Software Implementation						
SW0620	ASPERA DPU Software Coding	30	0	05JUL02	15AUG02	185
SW0625	ASPERA DPU Code Reviews	5	0	02AUG02	08AUG02	190
7.06.3 ASPERA DPU IDFS Software Test						
SW0630	ASPERA DPU IDFS Test Plan Development	20	0	23AUG02	20SEP02	160
SW0635	ASPERA DPU IDFS Software Verification Testing	5	0	23SEP02	27SEP02	160
7.07 Scan Platform IDFS Software Development						
7.07.1 Scan Platform IDFS Software Design						
SW0705	Scan Platform Software Design	55	0	01APR02*	17JUN02	208
SW0710	Scan Platform Software Design Reviews	30	0	01MAY02	12JUN02	211
SW0715	Scan Platform Software Design Validation	1	0	18JUN02	18JUN02	208



Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
7.07.2 Scan Platform IDFS Software Implementation						
SW0720	Scan Platform Software Coding	15	0	19JUN02	10JUL02	208
SW0725	Scan Platform Code Reviews	3	0	11JUL02	15JUL02	208
7.07.3 Scan Platform IDFS Software Test						
SW0730	Scan Platform IDFS Test Plan Development	10	0	19JUN02	02JUL02	216
SW0735	Scan Platform IDFS Software Verification Testing	5	0	16JUL02	22JUL02	208
7.08 Spacecraft O/A IDFS Software Development						
7.08.1 Spacecraft O/A IDFS Software Design						
SW0805	Spacecraft O/A Software Design	32	0	15APR02*	29MAY02	193
SW0810	Spacecraft O/A Software Design Reviews	5	0	06MAY02	10MAY02	210
SW0815	Spacecraft O/A Software Design Validation	1	0	06JUN02	06JUN02	193
7.08.2 Spacecraft O/A IDFS Software Implementation						
SW0820	Spacecraft O/A Software Coding	5	0	05JUL02	11JUL02	213
SW0825	Spacecraft O/A Code Reviews	1	0	12JUL02	12JUL02	213
7.08.3 Spacecraft O/A IDFS Software Test						
SW0830	Spacecraft O/A IDFS Test Plan Development	20	0	15JUL02	09AUG02	193
SW0835	Spacecraft O/ IDFS Software Verification Testing	1	0	12AUG02	12AUG02	193
7.09 ASPERA Processing & Archiving Facility (APAF)						
7.09.1 APAF System Design						
SW0905	APAF Design	50	0	09SEP02*	15NOV02	90
SW0910	APAF Design Review	10	0	18NOV02	03DEC02	90
SW0915	APAF Design Validation	1	0	04DEC02	04DEC02	90
7.09.2 APAF System Implementation						
SW0920	APAF Coding & Configuration	25	0	27DEC02	31JAN03	90
SW0925	APAF Implementation Review	10	0	27JAN03	07FEB03	90
7.09.3 APAF System Integration & Test						
SW0930	APAF System Test Plan Development	20	0	05DEC02	06JAN03	114
SW0935	APAF System Verification Testing	10	0	10FEB03	21FEB03	90
7.10 ASPERA Daily Web-Based Displays						
7.10.1 Daily Web-Based Display System Requirements						
SW1005	Define & Document Display System Requirements	35	0	01JUL02*	19AUG02	159
SW1010	Web-Based Display System Requirements Review	10	0	20AUG02	03SEP02	159
SW1015	Display System Requirements Document Deliverable	5	0	04SEP02	10SEP02	159
7.10.2 Daily Web-Based Display System Design						
SW1020	Daily WB Display System Design	50	0	11SEP02	19NOV02	159
SW1025	Daily WB Display System Design Review	5	0	06NOV02	12NOV02	174
SW1028	Daily WB Display System Design Validation	20	0	06DEC02	07JAN03	159
7.10.3 Daily Web-Based Display System Implementation						
SW1030	Daily WB Display Coding & Configuration	35	0	05FEB03	25MAR03	179
SW1035	Daily WB Display Implementation Review	10	0	26MAR03	08APR03	179
7.10.4 Daily Web-Based Display System Test						
SW1040	Daily WB Display System Test Plan Development	10	0	02APR03	15APR03	159
SW1045	Daily WB Display System Verification Testing	5	0	07MAY03	13MAY03	159
7.11 ELS Characterization Software						
SW1105	ASPERA-3 DPU SIM Code Furnished by IRF	3	100	12JAN00A	14JAN00A	
SW1110	Configure Software for ELS Instrument DPU SIM	95	100	01MAR00A	13JUL00A	
SW1115	Acquire, Translate, & Archive Cal Data Files	419*	66	06APR00A	30NOV01	0
SW1120	Update VIDF Files Based on Calibration Results	10	0	03DEC01	14DEC01	0

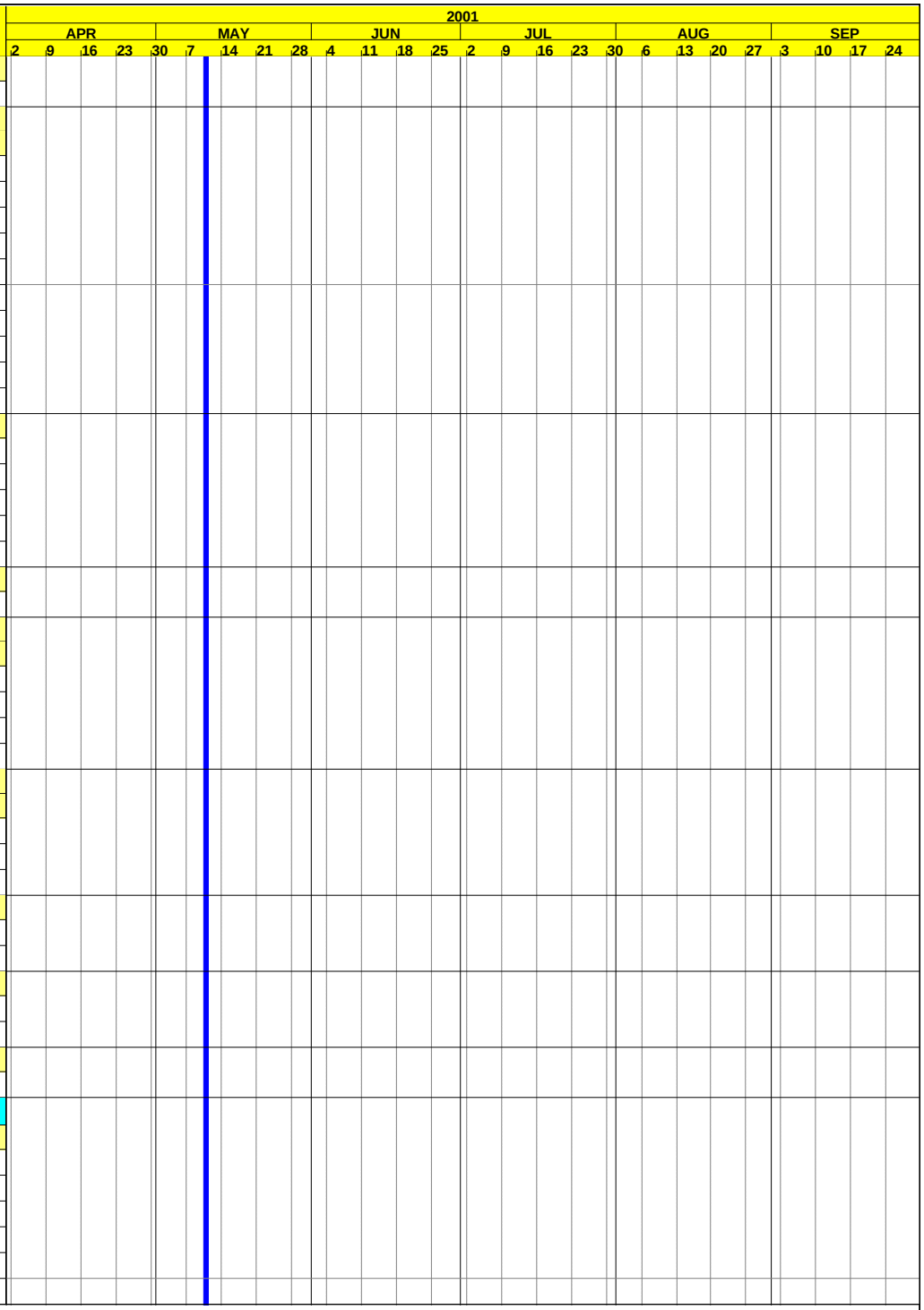


Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
7.12 Post Launch Software Development						
7.12.1 Post Launch - Cruise Phase						
7.12.1.1 IDFS Updates						
SW1213	Update IDFS Creation Software (If Req'd)	140	0	02JUN03*	18DEC03	7
SW1210	Update IDFS Data Access Software	110	0	01JUL03*	05DEC03	16
SW1212	Update IDFS Data Server Software	80	0	04AUG03*	24NOV03	102
SW1216	Update IDFS Processing System (If Req'd)	140	0	01DEC03*	17JUN04	135
7.12.1.2 Document Preparation & Delivery to PDS						
SW1220	Define & Describe PDS Data Products	180	0	01JUL03*	17MAR04	130
SW1223	Implement Production & Validation Process	40	0	18MAR04	12MAY04	130
SW1226	PDS Peer Review & Approval Process	30	0	13MAY04	24JUN04	130
7.12.1.3 APAF Operations						
SW1230	Update & Document APAF Operations Procedures	60	0	03MAR03*	23MAY03	269
SW1235	Operate APAF Production to Supp Inst. Check Out	160	0	02JUN03*	20JAN04	265
7.12.2 Post Launch - Orbital Phase						
SW1250	Operate APAF Prod. (IDFS/PDS Data & NRT Disp)	146	0	08MAR04	30SEP04	265
SW1255	Science Software Support	146	0	08MAR04	30SEP04	265
SW1260	Software Maintenance	146	0	08MAR04	30SEP04	265
SW1252	Operate APAF Prod. (IDFS/PDS Data & NRT Disp)	314	0	01OCT04	30DEC05*	505
SW1256	Science Software Support (**)	554	0	01OCT04	11DEC06	265
SW1261	Software Maintenance	554	0	01OCT04	11DEC06	265
7.13 Travel-Labor for Software Development						
SW1452	ASPERA Team Mtg's / TIM's @ Rome	3	100	04OCT99A	06OCT99A	
SW1450	ASPERA Team Mtg's / TIM's @ Kiruna	17	100	07FEB00A	29FEB00A	
SW1415	GSE Meetings (Finland/Italy)	150	100	01MAR00A	29SEP00A	
SW1450C	ASPERA Team Mtg's / TIM's @ Kiruna	1,162*	26	01MAR00A	30SEP04	13
SW1455	ESA Science Working Group Meetings @ Nordvik	4	100	21APR00A	26APR00A	
SW1412	ASPERA Data Archiving Working Group Mtg @	2	100	19JUN00A	20JUN00A	
SW1455C	ESA Science Working Group Meetings @ Nordvik	1,032*	17	01SEP00A	30SEP04	0
SW1410	ASPERA I Critical Design Review	2	100	06SEP00A	07SEP00A	
SW1470	Aspera-3 SWT/TIM Meeting	6	100	02MAR01A	09MAR01A	
SW1460	Calibration @ Kiruna	98*	0	11MAY01*	28SEP01	0
SW1480	MEX DAWG/SOWG/SWT	3	0	20JUN01*	22JUN01	0
SW1420	Instrument Quality Acceptance Review	2	0	18JUL01*	19JUL01	50
SW1430	Flight Acceptance Review	2	0	20NOV02*	21NOV02	4
SW1435	Final Data Archival Review	2	0	28JAN03*	29JAN03	2
SW1451	ASPERA Team Mtg's / TIM's @ Kiruna	595	0	01OCT04	09FEB07	13
SW1456	ESA Science Working Group Meetings @ Nordvik	606	0	01OCT04	26FEB07	2
SW1440	Instrument Check-Out Review	2	0	07DEC04*	08DEC04	10
7.14 Computer & Network Equipment						
SW1510	Development Computer PO Placement	20	100	25JAN00A	11FEB00A	
SW1525	Computer Maintenance	1,919*	16	01MAR00A	28SEP07	62
SW1515	IDFS Production Computer & Archival System	20	0	03JUN02*	28JUN02	22
SW1520	Analysis Computer	22	0	01JUN04*	30JUN04	64
SW1530	Necessary Upgrades	64	0	01MAY06*	31JUL06	43
SW1505	Network Connection - SwRI & GSFC	0	0	31AUG07*	30AUG07	82

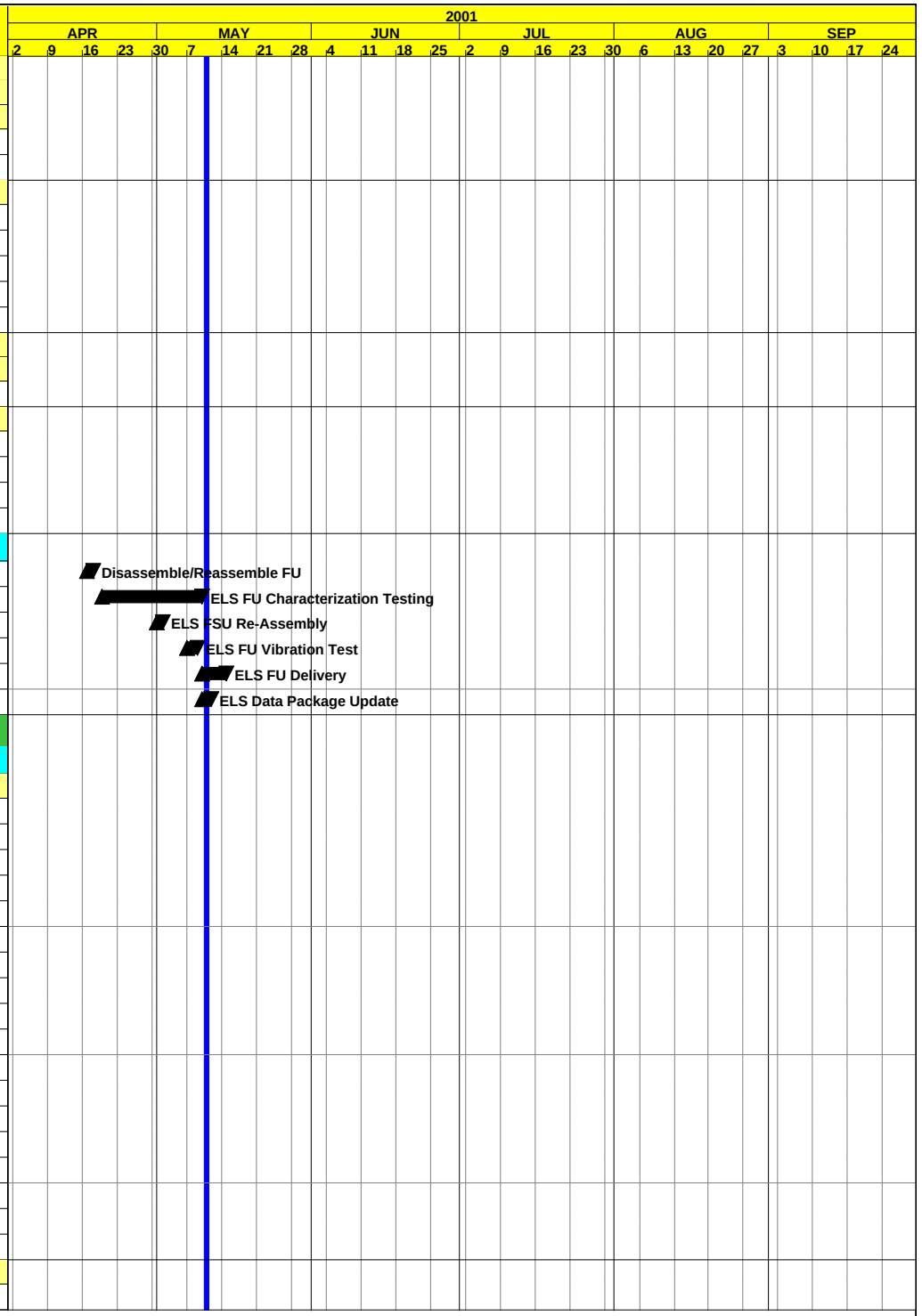


Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
8 Assembly, Integration & Testing						
8.1 ELS Instrument I&T						
8.1 .1 ELS STM						
8.1 .1.1 ELS STM Unit Assembly						
STM0005	Fabricate ELS STM Pieces	15	100	12JUL00A	14JUL00A	
STM0010	Assemble ELS STM	1	100	18AUG00A	23AUG00A	
8.1 .1.2 ELS STM Testing						
STM0045	ELS STM Mass Properties Measuremts	11	100	23AUG00A	24AUG00A	
STM0055	ELS STM Functional / Electrical Load Test	1	100	23AUG00A	23AUG00A	
STM0070	ELS STM Bakeout	0	100	23AUG00A	24AUG00A	
STM0050	ELS STM Metrology Report	1	100	24AUG00A	29AUG00A	
STM0090	ELS STM Final Inspect / Cleaning / Bagging	11	100	24AUG00A	24AUG00A	
8.1 .2 ELS Prototype Assembly & Testing						
ELSP4020	ELS Proto Mechanical UV Coating	54	100	07FEB00A	24APR00A	
ELSP4005	ELS Proto Assembly	55	100	20MAR00A	23JUN00A	
ELSP4010	ELS Proto Bench Itrfc Test	3	100	30MAY00A	05JUN00A	
ELSP4030	ELS Proto FEE Thermal Testing	3	100	19JUN00A	23JUN00A	
ELSP4040	ELS Proto HVPS Thermal Test	3	100	19JUN00A	23JUN00A	
ELSP4015	ELS Proto Characterization in Vacuum	5	100	26JUN00A	28JUL00A	
ELSP4050	ReIntegrate ELS Prototype (w/EM MCP's)	1	100	26JUN00A	26JUN00A	
ELSP4060	ELS Proto Vacuum HV Testing	2	100	03JUL00A	05JUL00A	
ELSP4070	ELS Proto End-2-End XTalk Chk	17	100	06JUL00A	28JUL00A	
ELSP4055	ELS Prototype Vibration Test	2	100	11AUG00A	14AUG00A	
ELSP4072	ELS Proto FEE Thermal Testing	3	100	21AUG00A	23AUG00A	
ELSP4074	ELS Proto HVPS Thermal Test	3	100	21AUG00A	23AUG00A	
ELSP4076	ReIntegrate ELS Prototype (w/EM MCP's)	1	100	24AUG00A	24AUG00A	
ELSP5010	Receive ELS Prototype Unit from MSSL	0	100	11DEC00A		
ELSP5020	ELS Prototype Testing @ SwRI	8	100	11DEC00A	20DEC00A	
ELSP5030	Ship ELS Prototype Back to MSSL	7*	100	21DEC00A	03JAN01A	
ELSP5040	ELS Prototype Verification Testing @ MSSL	9	100	04JAN01A	16JAN01A	
8.1 .3 ELS Flight Unit (FU)						
8.1 .3.1 ELS FU Assembly						
ELSFSU022	Assemble ELS FU HVPS/Amp/MCP	1	100	29SEP00A	29SEP00A	
ELSFU032	Install FU SubAssy in Vacuum Chamber	2	100	30OCT00A	31OCT00A	
ME4135D	ELS FU Assembly (Pre-UV Coat)	2	100	18DEC00A	19DEC00A	
ME4135E	ELS FU Vacuum Testing (Pre-UV Coat)	6	100	19DEC00A	21DEC00A	
ME4135F	Disassemble ELS FU for UV Coating @ MSSL	1	100	26DEC00A	26DEC00A	
ELSFU002	ELS FU SubAssembly Bakeout	2	100	19JAN01A	22JAN01A	
ELSFU215	Conduct ELS FU Anode Character Testing w/Ni63	5	100	23JAN01A	29JAN01A	
ELSFU005	ELS FU Assembly	1	100	30JAN01A	30JAN01A	
8.1 .3.2 ELS FU Testing & Measurements						
8.1 .3.2 .1 ELS FU Vacuum HV Testing						
ELSFU200	ELS FU Vacuum - HV Test Setup	2	100	02OCT00A	03OCT00A	
ELSFU205	Conduct ELS FU Vac - HV Breakdown Testing	2	100	19JAN01A	22JAN01A	
ELSFU220	ELS FU Vac/HV Breakdown Test Report	2	100	16FEB01A	19FEB01A	
8.1 .3.2 .2 ELS FU E2E & Crosstalk Check						
ELSFU210	Conduct ELS FU HV Breakdown Test	3	100	13FEB01A	15FEB01A	
8.1 .3.2 .3 ELS FU Physical/Mass Properties Measurements						
ELSFU250	Conduct ELS FU Weight & CG Measurements	1	100	31JAN01A	31JAN01A	
ELSFU255	Conduct ELS FU Physical Prop Measurements	1	100	31JAN01A	31JAN01A	

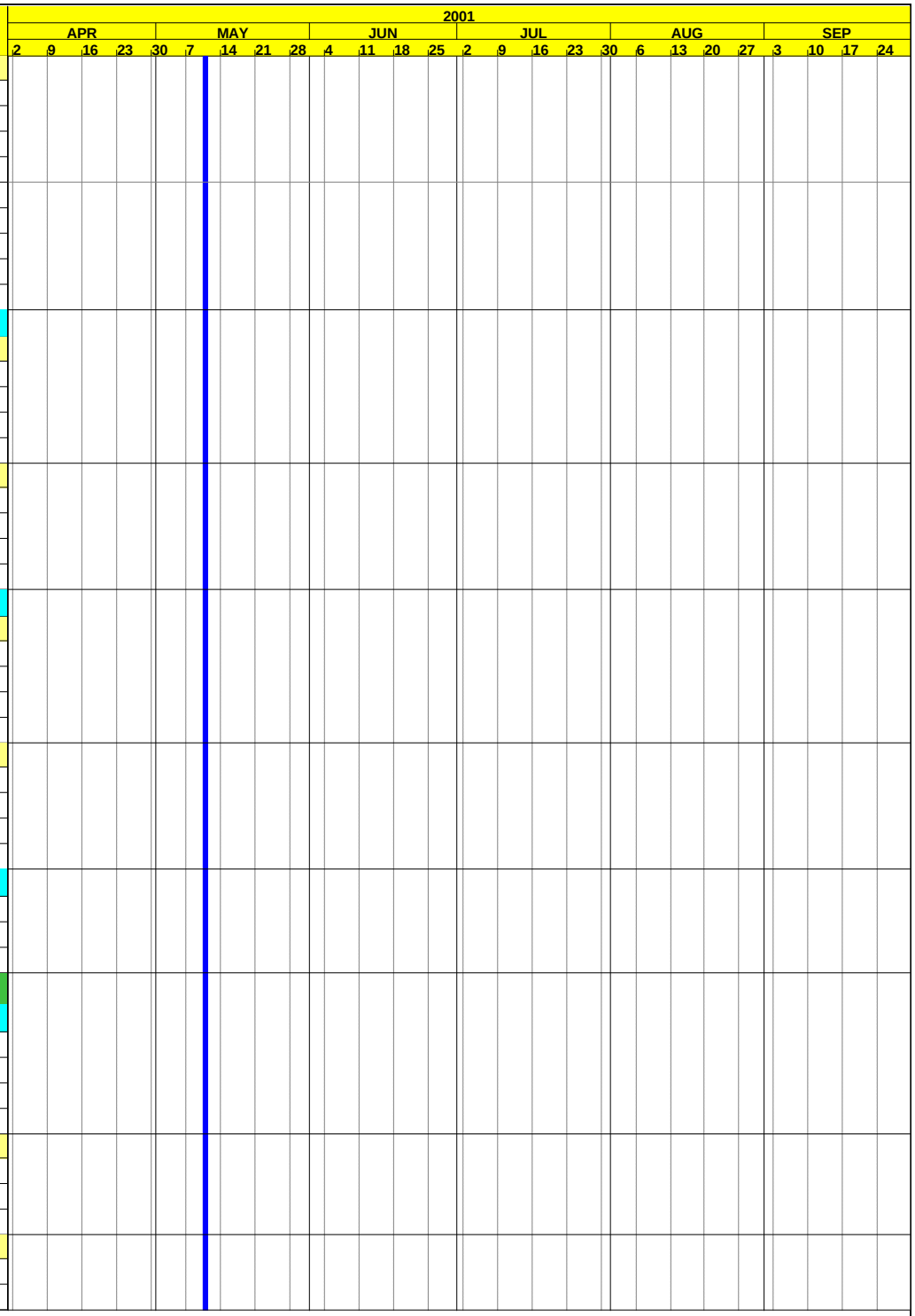
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
8.1 .3.2 .3 ELS FU Physical/Mass Properties Measurements						
ELSFU280	Move ELS FU to Vibe Area	0	100	01FEB01A	31JAN01A	
8.1 .3.3 ELS FU Acceptance Testing						
8.1 .3.3 .1 ELS FU Random 3-axis Vibration Tests						
ELSFU302	IRF Supplied Vibe Levels Req'd	0	100		10AUG00A	
ELSFU310	ELS FU Vibration TRR	1	100	29JAN01A	29JAN01A	
ELSFU305	ELS FU Vibe Setup & Checkout	1	100	31JAN01A	31JAN01A	
ELSFU315	Conduct ELS FU Z-axis Random Vibe Test	1	100	01FEB01A	01FEB01A	
ELSFU325	ReConfigure for X/Y-axis	0	100	02FEB01A	01FEB01A	
ELSFU330	Conduct ELS FU Y-axis Random Vibe Test	0	100	02FEB01A	01FEB01A	
ELSFU340	Conduct ELS FU X-axis Random Vibe Test	0	100	02FEB01A	01FEB01A	
ELSFU346	ELS FU Vibe Test Report	3	100	02FEB01A	06FEB01A	
ELSFU349	Disassemble Test Setup / Move ELS FU to TV Area	1	100	02FEB01A	02FEB01A	
ELSFU352	Move ELS FU to TV Area	1	100	05FEB01A	05FEB01A	
8.1 .3.3 .2 ELS FU Thermal Vacuum Testing						
ELSFU355	ELS FU TV Setup & Checkout	3	100	31JAN01A	02FEB01A	
ELSFU360	ELS FU TV TRR	1	100	02FEB01A	02FEB01A	
ELSFU365	Conduct ELS FU TV Testing (4-Cycles)	7	100	03FEB01A	09FEB01A	
ELSFU370	ELS FU TV Test Report	3	100	12FEB01A	14FEB01A	
ELSFU372	Disassemble Test Setup	1	100	12FEB01A	12FEB01A	
8.1 .3.3 .3 ELS FU Characterization w/Ni-63						
ELSFU230	Conduct ELS FU Aliveness Test w/UV Gun	3	100	14FEB01A	23FEB01A	
8.1 .4 ELS Flight Spare Unit (FSU)						
8.1 .4.1 ELS FSU Assembly						
ELSFSU002	ELS FSU SubAssembly Bakeout	3	100	25SEP00A	30OCT00A	
ELSFSU012	Assemble ELS FSU HVPS/Amp/MCP	1	100	25SEP00A	25SEP00A	
ELSFSU032	Install FSU SubAssy in Vacuum Chamber	2	100	29SEP00A	02OCT00A	
ELSFSU005	ELS FSU Assembly	1	100	19JAN01A	19JAN01A	
8.1 .4.2 ELS FSU Testing & Measurements						
8.1 .4.2 .1 ELS FSU Vacuum HV Testing						
ELSFSU225	ELS FSU Vacuum - HV Test Setup	2	100	26SEP00A	28SEP00A	
ELSFSU230	Conduct Limited ELS FSU Vac - HV Breakdown Test	2	100	04OCT00A	05OCT00A	
ELSFSU240	ELS FSU Vac/HV Breakdown Test Report	1	100	24JAN01A	24JAN01A	
8.1 .4.2 .2 ELS FSU E2E & Crosstalk Check						
ELSFSU238	Conduct ELS FSU Anode Character Testing w/Ni63	10	100	06OCT00A	24OCT00A	
ELSFSU241	Conduct ELS FSU Vac - HV Breakdown Testing	2	100	22JAN01A	23JAN01A	
8.1 .4.2 .3 ELS FSU Physical/Mass Properties Measurements						
ELSFSU250	Conduct ELS FSU Weight & CG Measurements	1	100	26JAN01A	26JAN01A	
ELSFSU255	Conduct ELS FSU Physical Prop Measurements	0	100	29JAN01A	26JAN01A	
8.1 .4.2 .4 ELS FSU Characterization w/Ni-63						
ELSFSU395	Conduct ELS FSU Aliveness Test w/UV Gun	2	100	24JAN01A	25JAN01A	
8.2 IMA Sensor I&T						
8.2 .1 IMA Prototype Imager / Electronics Assy & Test						
IMAP4305	Integrate IMA Prototype Imager (w/EM MCP's)	1	100	23MAY00A	25MAY00A	
IMAP4315	IMA Proto Characterization w/Electron Source	10	100	30MAY00A	22JUN00A	
IMAP4310	IMA Proto Vacuum HV Testing	5	100	15JUN00A	21JUN00A	
IMAP4330	IMA Proto Vibration Test	7	100	04AUG00A	14AUG00A	
IMAP4320	Intfc Tests w/IMA @ IRF	10	100	10NOV00A	19JAN01A	
IMAP4340	Post Delivery In-House Testing	10	100	11DEC00A	12JAN01A	



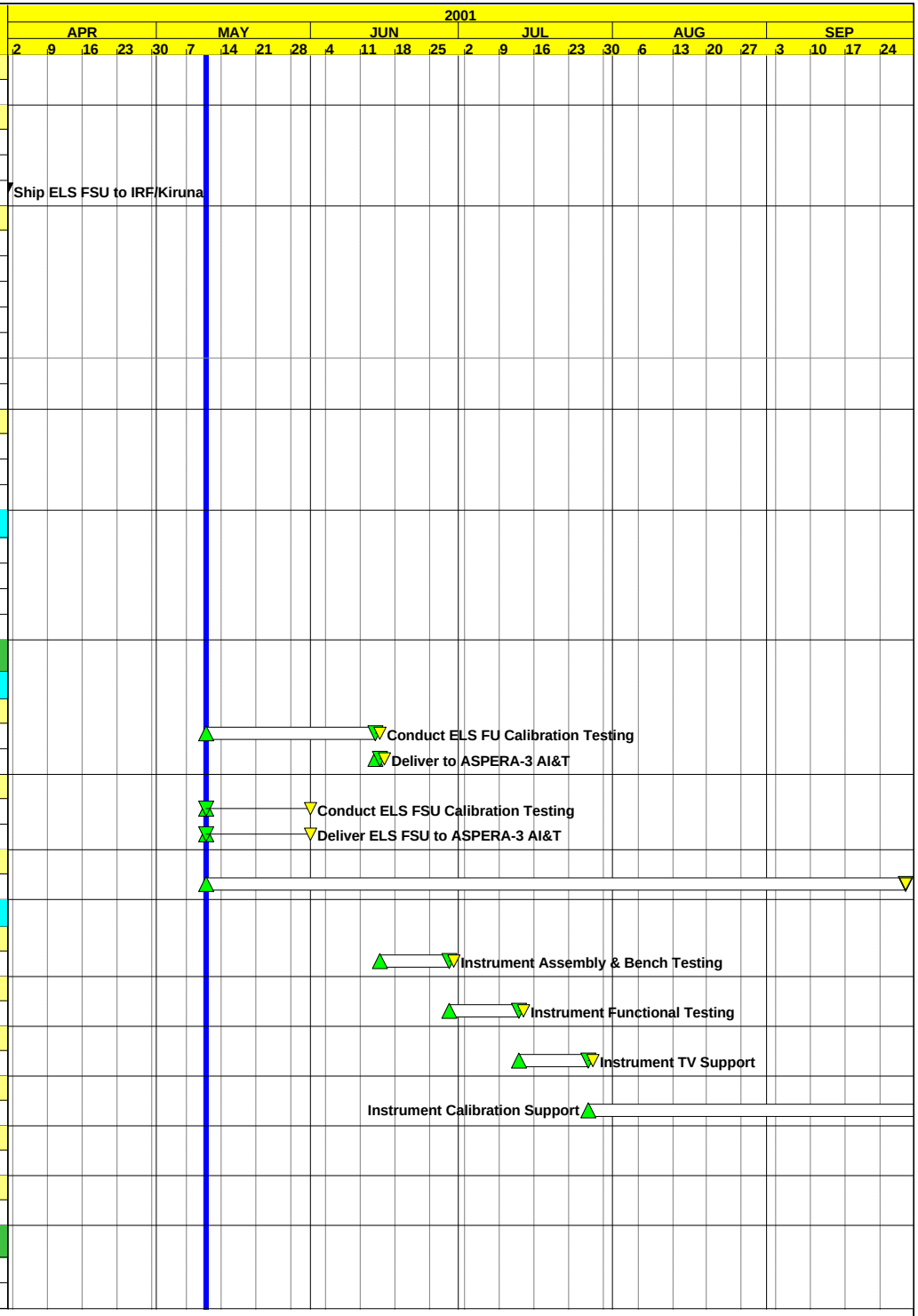
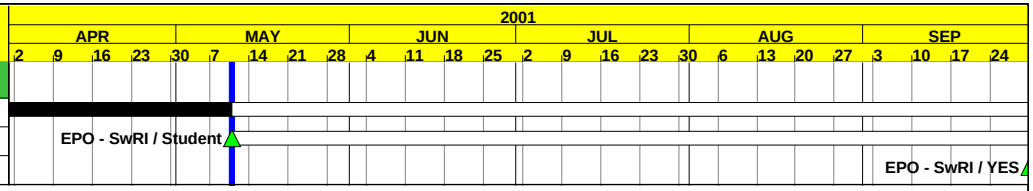
Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
8.2 .2 IMA Flight Imager & Electronics						
8.2 .2.1 IMA Flight Set (FS)						
8.2 .2.1 .1 IMA FS Assembly						
IMAFL1025	Conduct IMA FS/FSS Electronics Thermal Testing	5	100	05SEP00A	12SEP00A	
IMAFL1005	IMA FS Assembly	1	100	25SEP00A	03NOV00A	
8.2 .2.1 .2 IMA FS Testing						
IMAFL1015	Conduct IMA FS Proto Vibration Test	2	100	02OCT00A	03OCT00A	
IMAFL1050	Conduct IMA FS Vacuum HV Testing	2	100	04OCT00A	05OCT00A	
IMAFL1060	IMA FS MS MCP Removal & Prep for Vac Testing	1	100	06OCT00A	06OCT00A	
IMAFL1055	Conduct IMA FS Vac Test w/Channeltron	5	100	10OCT00A	16OCT00A	
IMAFL1058	IMA FS Test Report	1	100	17OCT00A	15DEC00A	
8.2 .2.2 IMA Flight Spare Set (FSS)						
8.2 .2.2 .1 IMA FSS Assembly						
IMAFSS005	IMA FSS Assembly	1	100	25SEP00A	27OCT00A	
8.2 .2.2 .2 IMA FSS Testing						
IMAFSS015	Conduct IMA FSS Proto Vibration Test	2	100	04OCT00A	05OCT00A	
IMAFSS050	Conduct IMA FSS Vacuum/HV Test	2	100	06OCT00A	09OCT00A	
IMAFSS055	Conduct IMA FSS Vac Test w/Channeltron	5	100	17OCT00A	23OCT00A	
IMAFSS058	IMA FSS Test Report	1	100	24OCT00A	15DEC00A	
8.3 ELS FU/FSU Re-Assembly & Retest						
RE1100	Disassemble/Reassemble FU	1	100	17APR01A	17APR01A	
RE1120	ELS FU Characterization Testing	10	100	20APR01A	09MAY01A	
RE1140	ELS FSU Re-Assembly	1	100	01MAY01A	01MAY01A	
RE1110	ELS FU Vibration Test	2	100	07MAY01A	08MAY01A	
RE1130	ELS FU Delivery	5	100	10MAY01A	14MAY01A	
RE1150	ELS Data Package Update	2	100	10MAY01A	11MAY01A	
9 Ground Support Equipment (GSE)						
9.1 Mechanical GSE (MGSE)						
9.1 .1 MGSE Design						
EGSE208	Vac Chamber Flange Procurement	44	100	15MAR00A	12MAY00A	
EGSE207	Potentiometer Procurement	10	100	05APR00A	10APR00A	
MGSE010	Design ELS Vibration Fixture	10	100	07APR00A	19APR00A	
MGSE100	Design IMA Ni-63 Source Holder(s)	5	100	07APR00A	05MAY00A	
MGSE104	Design IMA Vac Chamber Fixturing & Brackets	10	100	07APR00A	25APR00A	
MGSE380	Design ELS Ni-63 Source Holder(s)	5	100	07APR00A	20APR00A	
EGSE211	Ready Cal/Vac Chamber for Testing	15	100	17APR00A	12MAY00A	
MGSE102	Design IMA Source Holder Vac Chamber Bracket(s)	5	100	17APR00A	25APR00A	
EGSE209	IMA Terminal Block Procurement	5	100	18APR00A	21APR00A	
MGSE200	IMA Ni-63 Source Holder Fab Drawings	10	100	21APR00A	09MAY00A	
MGSE202	IMA Source Holder Vac Chamber Bracket Fab Dwg's	10	100	21APR00A	28APR00A	
MGSE204	IMA Vac Chamber Fixture/Bracket Fab Drawings	10	100	21APR00A	28APR00A	
MGSE310	ELS Ni-63 Source Holder Fab Drawings	3	100	21APR00A	09MAY00A	
MGSE020	ELS Vibration Fixture Fab Drawings	6	100	24APR00A	28APR00A	
MGSE740	IMA Pogo Alignment Fixture Design & Fabrication	15	100	10JUL00A	21JUL00A	
MGSE030	Design ELS TV Fixturing	10	100	04AUG00A	19SEP00A	
MGSE040	ELS TV Fixture Fab Drawings	10	100	18AUG00A	25AUG00A	
MGSE530	Design, Fab Characterization Fixture	7	100	20SEP00A	31OCT00A	
9.1 .2 MGSE Fabrication						
EGSE124	ELS Voltage Amplifier Dsgn, Fab & Test	5	100	10APR00A	28APR00A	



Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
9.1 .2 MGSE Fabrication						
EGSE120	IMA Break Out Box (BOB) Fab & Test	5	100	17APR00A	21APR00A	
MGSE302	ELS/IMA Source Holder Vac Chamber Bracket Fab	24	100	28APR00A	17MAY00A	
MGSE304	ELS/IMA Vac Chamber Fixturing & Brackets Fab	24	100	28APR00A	17MAY00A	
MGSE510	ELS Vibration Fixture Fabrication	10	100	08MAY00A	19MAY00A	
MGSE300	IMA Ni-63 Source Holder(s) Fabrication	16	100	10MAY00A	17MAY00A	
MGSE320	ELS Ni-63 Source Holder(s) Fabrication	16	100	10MAY00A	17MAY00A	
MGSE400	IMA MGSE Fit Check w/IMA & Vac Chamber	1	100	02JUN00A	02JUN00A	
MGSE720	IMA Thermal Fixture Fabrication	10	100	04AUG00A	29SEP00A	
MGSE520	ELS TV Fixture Fabrication	10	100	28AUG00A	15SEP00A	
9.2 Electrical GSE (EGSE)						
9.2 .1 EGSE Design						
EGSE205	ELS GSE Cable Fab Drawings	3	100	30MAR00A	18APR00A	
EGSE100	Design IMA GSE Cable(s)	3	100	05APR00A	06APR00A	
EGSE200	Design ELS GSE Cable(s)	3	100	05APR00A	14APR00A	
EGSE105	IMA GSE Cable Fab Drawings	3	100	06APR00A	07APR00A	
9.2 .2 EGSE Fabrication						
EGSE106	IMA GSE Cable Parts/Mat'ls Procurement	5	100	15MAR00A	11APR00A	
EGSE110	IMA GSE Cable(s) Fabrication & Test	5	100	10APR00A	11APR00A	
EGSE206	ELS GSE Cable Parts/Mat'ls Procurement	5	100	10APR00A	20APR00A	
EGSE210	ELS GSE Cable(s) Fabrication & Test	5	100	17APR00A	13OCT00A	
9.3 Calibration GSE						
9.3 .1 CAL GSE Design						
CGSE030	Design ELS Calibration Fixturing/Brackets	10	100	16JAN01A	29JAN01A	
CGSE210	Design IMA Calibration Fixturing & Brackets	10	100	16JAN01A	29JAN01A	
CGSE040	ELS Cal Fixture Fab Drawings	10	100	30JAN01A	12FEB01A	
CGSE240	IMA Cal Fixture Fab Drawings	10	100	30JAN01A	12FEB01A	
9.3 .2 CAL GSE Fabrication						
CGSE600	Ready Calibration Chamber for Testing	38	100	10APR00A	19MAY00A	
MGSE250	Ready Thermal Chamber for Testing	38	100	10APR00A	30MAY00A	
CGSE520	ELS CAL Fixture Fabrication	10	100	13FEB01A	26FEB01A	
CGSE720	IMA CAL Fixture Fabrication	10	100	13FEB01A	26FEB01A	
9.4 Special Tools (ST) / Test Equipment (STE)						
STE100	ELS/IMA Test Set(s) (x2)	20	100	06MAR00A	24MAR00A	
STE200	Ready ELS GSE S/W & Test Set	63	100	06MAR00A	23MAY00A	
STE300	Ready IMA GSE S/W & Test Set	63	100	06MAR00A	22MAY00A	
A Deliverables						
A.1 Hardware Deliverables						
DEL0075FS	IMA FS Hdwr Contingency	13	100	27NOV00A	13DEC00A	
DEL0075FSS	IMA FSS Hdwr Contingency	13	100	27NOV00A	13DEC00A	
DEL0050	ELS FU Contingency	5	100	16FEB01A	22FEB01A	
DEL0055	ELS FSU Contingency	4	100	16FEB01A	21FEB01A	
A.1 .1 ELS Structural Thermal Model (STM)						
DEL0120	Prep ELS STM for Shipment	1	100	21AUG00A	25AUG00A	
DEL0125	Ship ELS STM to IRF/Kiruna	5	100	25AUG00A	28AUG00A	
DEL0130	ELS STM Delivered	0	100		28AUG00A	
A.1 .2 ELS Flight Unit (FU)						
DEL0150	Prep ELS FU for Shipment	3	100	26FEB01A	27FEB01A	
DEL0155	Ship ELS FU to IRF/Kiruna	1	100	02MAR01A	05MAR01A	



Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
A.1 .2 ELS Flight Unit (FU)						
DEL0160	ELS FU Delivered	0	100		05MAR01A	
A.1 .3 ELS Flight Spare Unit (FSU)						
DEL0180	Prep ELS FSU for Shipment	1	100	05MAR01A	05MAR01A	
DEL0190	ELS FSU Delivered In Place	0	100		05MAR01A	
DEL0185	Ship ELS FSU to IRF/Kiruna	2	100	29MAR01A	30MAR01A	
A.1 .4 IMA Flight Set (FS) Hardware						
DEL0105	Prep IMA Proto Hdwr for Shipment	1	100	24AUG00A	24AUG00A	
DEL0115	Ship IMA Proto Hdwr to IRF/Kiruna	1	100	25AUG00A	25AUG00A	
DEL0117	Prep ELS Proto Hdwr for Shipment	1	100	25AUG00A	25AUG00A	
DEL0118	Ship ELS Proto Hdwr to IRF/Kiruna	1	100	28AUG00A	28AUG00A	
DEL0210	Prep IMA FS Hdwr for Shipment	1	100	14DEC00A	14DEC00A	
DEL0215	Ship IMA FS Hdwr to IRF/Kiruna	2	100	09JAN01A	10JAN01A	
DEL0220	IMA FS Hdwr Delivered	0	100		10JAN01A	
A.1 .5 IMA Flight Spare Set (FSS) Hardware						
DEL0250	Prep IMA FSS Hdwr for Shipment	1	100	14DEC00A	14DEC00A	
DEL0255	Ship IMA FSS Hdwr to IRF/Kiruna	2	100	09JAN01A	10JAN01A	
DEL0260	IMA FSS Hdwr Delivered	0	100		10JAN01A	
A.3 Data Deliverables						
DEL3005	ELS STM Data Package	5	100	15AUG00A	30AUG00A	
DEL3015	IMA Flt. Hdwr Data Package	2	100	28NOV00A	15DEC00A	
DEL3010	ELS FSU Data Package	5	100	05FEB01A	23FEB01A	
DEL3020	ELS FU Data Package	1	100	20FEB01A	20FEB01A	
B Post Delivery SwRI Support						
B.1 Instrument Calibration						
B.1 .1 ELS FU Calibration						
ELSFU415	Conduct ELS FU Calibration Testing	23	0	11MAY01	13JUN01	1
ELSFU430	Deliver to ASPERA-3 AI&T	1	0	14JUN01	14JUN01	1
B.1 .2 ELS FSU Calibration						
ELSFSU415	Conduct ELS FSU Calibration Testing	0	0	11MAY01	10MAY01	14
ELSFSU430	Deliver ELS FSU to ASPERA-3 AI&T	0	0	11MAY01	10MAY01	14
B.1 .3 IMA AI&T / Calibration						
IMAFL1205	IMA Calibration Support	98*	0	11MAY01	28SEP01	0
B.2 ASPERA I&T Support						
B.2 .1 Flt. Instrument Assembly						
ASP0100	Instrument Assembly & Bench Testing	10	0	15JUN01	28JUN01	1
B.2 .2 Functional Testing						
ASP0200	Instrument Functional Testing	10	0	29JUN01	12JUL01	1
B.2 .3 TV Testing						
ASP0300	Instrument TV Support	10	0	13JUL01	26JUL01	1
B.2 .4 Calibration						
ASP0400	Instrument Calibration Support	60	0	27JUL01	18OCT01	1
B.2 .5 ASPERA Reserve						
ASP0500	ASPERA-3 Reserve Contingency	20	0	19OCT01	15NOV01	1
B.2 .6 ASPERA-3 Delivery						
ASP0600	ASPERA-3 FM Delivery to ESA	0	0		15NOV01	1
C Education & Public Outreach (EPO)						
EPO0210	EPO - SwRI / Lewis	103*	100	01OCT99A	29FEB00A	
EPO0210C	EPO - SwRI / Lewis	172	100	01MAR00A	31OCT00A	



Activity ID	Activity Description	Dur (D)	%	Start	Finish	TF
C Education & Public Outreach (EPO)						
EPO0220	EPO - SwRI / Mukherjee	1,265*	12	02OCT00A	30SEP05	0
EPO0230	EPO - SwRI / Student	1,363*	0	11MAY01*	29SEP06	0
EPO0240	EPO - SwRI / YES	760	0	01OCT01*	30SEP04	0