TABLE 1. Requirements Traceability Table

SW Prelim. Design Section and Page #	SW Requirements Section(s)
DEA Housekeeping Data - Class "DEA Housekeeping Telemetry Packet" 75	3.2.10.3.4
Software Housekeeping 76	3.2.9
Software Housekeeping Processing 76	3.2.9
Software Housekeeping Control - Class "Software Housekeeper" 76	3.2.9.3.2, 3.2.9.3.4, 3.2.9.3.5
Watchdog Maintenance - Class "Watchdog Device" 77	3.2.9.3.4
Software Housekeeping Statistics - Class "SW House Telemetry Packet" 77	3.2.9.3.3
Fatal Error Reporting 78	3.2.9.3.5
Fatal Error Report - Class "Fatal Error" 78	3.2.9.3.5
Front End Processor I/O Library 79	2.6, 3.1.2, 3.2.2, 3.2.3
Front End Processor Science Processing 81	3.2.2, 3.2.3
Processor Hardware Memory Maps 83	2.5, 2.6, 3.1.2, 3.1.3

TABLE 1. Requirements Traceability Table

SW Prelim. Design Section and Page #	SW Requirements Section(s)
Event Representation - Class “Event Data” 67	3.2.2.3.12, 3.2.2.3.14, 3.2.2.3.15, 3.2.2.3.16, 3.2.2.3.17, 3.2.2.3.18, 3.2.2.3.21, 3.2.2.3.22, 3.2.3.3.7, 3.2.3.3.8, 3.2.3.3.10, 3.2.2.3.11, 3.2.3.3.12, 3.2.3.3.13, 3.2.3.3.14, 3.2.3.3.15, 3.2.3.3.18, 3.2.3.3.19
Data Collections - Class “Data Platoon (name is TBR)” 67	3.2.2.3, 3.2.3.3
Data Filtering 68	3.2.2.3, 3.2.3.3
Data Filtering - Class “Data Filter” 68	3.2.2.3.21, 3.2.2.3.22, 3.2.3.3.18, 3.2.3.3.19
Window Filtering - Class “Pixel Window Filter” 69	3.2.2.3.18, 3.2.3.3.15
Amplitude Filtering - Class “Event Amplitude Filter” 69	3.2.2.3.15, 3.2.3.3.12
Event Grade Filtering - Class “Event Grade Filter” 69	3.2.2.3.17, 3.2.3.3.14
Data Processing 70	3.2.1.3.6, 3.2.1.3.7, 3.2.2.3, 3.2.3.3
Science Telemetry - Class “Science Telemetry Packet” 70	3.2.1.3.6, 3.2.2.3.19, 3.2.2.3.20, 3.2.2.3.21, 3.2.2.3.22, 3.2.3.3.16, 3.2.3.3.17, 3.2.3.3.18, 3.2.3.3.19
Science Run Startup Information - Class “Run Header” 70	3.2.1.3.6, 3.2.2.3, 3.2.3.3
Science Data - Class “Exposure Data” 71	3.2.1.3.6, 3.2.2.3.19, 3.2.2.3.20, 3.2.2.3.21, 3.2.2.3.22, 3.2.3.3.16, 3.2.3.3.17, 3.2.3.3.18, 3.2.3.3.19
Exposure Information - Class “Exposure Report” 71	3.2.2, 3.2.3
End of Science Run Information - Class “Run Report” 71	3.2.1.3.7
DEA Housekeeping 73	3.2.10
Housekeeping Configuration 73	3.2.10.3.1
Housekeeping Parameters - Class “DEA Housekeeping Parameter Block” 73	3.2.10.3.1
DEA Parameter Library- Class “DEA Housekeeping Block List” 74	3.2.10.3.1
Setup and Processing Control 74	3.2.10
DEA Housekeeping Control- Class “DEA Housekeeping Run” 74	3.2.10.3.2, 3.2.10.3.3
Data Representation 75	3.2.10.3.4

TABLE 1. Requirements Traceability Table

SW Prelim. Design Section and Page #	SW Requirements Section(s)
Command Processing Management - Class “Command Manager” 49	3.2
Command Execution - Class “Command Handler” 50	3.2
Command Logs - Class “Command Log” 50	3.2.9.3.1, 3.2.14.3.3
Telemetry Management 51	3.2
Discrete Telemetry Status 52	3.1.4.5, 3.2.9.3.2
Telemetry Packets 53	3.1.4.4
Telemetry Packet Definitions - Class “Telemetry Packet Buffer” 53	3.1.4.4
Telemetry Production and Transmission 55	3.1.4.4, 3.2
Telemetry Management - Class “Telemetry Manager” 56	3.1.4.4, 3.2
DEA Management 57	2.3, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8, 3.2.13
DEA SRAM and PRAM Loads 57	3.2.2.3.1, 3.2.2.3.3, 3.2.3.3.1, 3.2.3.3.3, 3.2.8.3.7, 3.2.8.3.8, 3.2.8.3.9, 3.2.8.3.10
DEA Management 57	2.3
DEA Management - Class “DEA Manager” 58	2.3
FEP Management 60	2.6, 3.1.2
FEP Code and Data Loads 60	3.1.2, 3.2.2.3.1, 3.2.3.3.1
FEP Management 60	3.1.2
FEP Management - Class “FEP Manager” 61	3.1.2
Science Processing 63	3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.6
Science Configuration 64	3.2.1
Science Parameters - Class “Parameter Block” 64	3.2.1.3.1, 3.2.1.3.2, 3.2.1.3.3
Parameter Database- Class “Parameter Block List” 64	3.2.1.3.1, 3.2.1.3.2, 3.2.1.3.3
Setup and Processing Control 65	3.2.1.3.4
Science Mode Dispatch - Class “Science Run” 65	3.2.1.3.4, 3.2.2, 3.2.3
Science Run Control- Class “Science Mode” 65	3.2.1.3.4, 3.2.2, 3.2.3
CCD Sequencing - Class “PRAM Synthesizer” 66	3.2.2.3.3, 3.2.3.3.3
Data Representation 66	3.2.1.3.6, 3.2.1.3.7, 3.2.2, 3.2.3
Generic Representation - Class “Pixel Array” 66	3.2.2.3.11, 3.2.2.3.12, 3.2.2.3.18, 3.2.2.3.19, 3.2.2.3.21, 3.2.3.3.7, 3.2.3.3.8, 3.2.3.3.15, 3.2.3.3.16, 3.2.3.3.18

TABLE 1. Requirements Traceability Table

SW Prelim. Design Section and Page #	SW Requirements Section(s)
Hardware Interfaces 23	2.5, 2.6, 3.1.2, 3.1.4
Back End Processor Interfaces 23	2.5, 3.1.2, 3.1.4
Back End Interrupts 24	2.5, 3.1.4
Back End Boot ROM 27	2.5, 3.1.2
Command Interfaces 28	2.5, 3.1.4.1, 3.1.4.2
Telemetry Interface 30	2.5, 3.1.4.4, 3.1.4.5
ACIS Time-stamp Interface 31	3.1.4.6
DEA Interfaces 32	2.3, 2.5, 3.1.2
Back End FEP Interfaces 33	2.5, 2.6, 3.1.2
Software ROM Interface 34	2.5, 3.1.2
Front End Processor Interfaces 35	2.5, 2.6, 3.1.2
Front End Interrupts 36	2.6
Front End Boot ROM 37	2.6, 3.1.2
Front End BEP I/O Interfaces 38	2.5, 2.6, 3.1.2
Spatial Threshold Registers 38	2.6
Threshold Bitmap 38	2.6
Overclock Buffer 39	2.6
Image Buffer 39	2.6
Real-Time Executive Interfaces 40	3.1.3
Executive Memory Map Requirements 40	3.1.3
Task and Interrupt Control 40	3.1.3
Event Management 41	3.1.3
Semaphore Management 42	3.1.3
Queue Management 42	3.1.3
Memory Management 44	3.1.3
System Clock Management 44	3.1.3
Command Management 45	3.2
Discrete Commands 46	3.1.4.2
Reset Command 46	3.1.4.2, 3.2.12
Set Boot Mode Modifier 46	3.1.4.2, 3.2.12
Clear Boot Mode Modifier 46	3.1.4.2, 3.2.12
Set Radiation Monitor Flag 47	3.1.4.2, 3.2.13
Clear Radiation Monitor Flag 47	3.1.4.2, 3.2.13
Command Packets 47	3.1.4.1
Command Packet Definitions - Class “Command Packet Buffer” 47	3.1.4.1
Command Reception and Execution 48	3.2