Paper No., Page No.	First Author	Part No.	Type	Manufacture	Data		Total Ionizing Dose				Single Event Effects							Displacement Damage		Facilities	Standard	Environement
					Terrestrial	Flight	Co60	ELDRS	Protons	Electrons	SEU	SET	SEFI	SEL	SEB	SEGR	Dose Rate	Protons	Neutrons			
1, pp. 1-5	S. McClure	LT1006A	Operational Amplifier	Linear Technology				√													√	
		LM136	Shunt Regulator Diode	National Semiconductor				√														
		LM158	Operational Amplifier	National Semiconductor				√														
		LM158	Operational Amplifier	Motorola				√														
		LT1963	Low Dropout Regulator	Linear Technology				√														
		LM3940	Low Dropout Regulator	National Semiconductor				√														
2, pp. 6-10	P. Layton	CS5016B	16 bit ADC	Crystal Semiconductor			√														√	
		ADS7805	16 bit ADC	Burr-Brown			√															
		ADS7809	16 bit ADC	Burr-Brown			√															
3, pp. 11-17	T. Sumita		Various solar cells		√	√			√	√											√	
4, pp. 18-23	L. Scheick	TC589100FT	1G bit, Flash	Toshiba	√		√				√		√	√							√	
		28F256K3	256 Mbit, Flash	Intel	√		√				√		√	√								
5, pp. 24-33	B. Pritchard	IN5665A	Zener Diode	Microsemi	√				√												√	
		2N2222A	NPN Transistor	Semicoa	√		√														√	
		2N2484	NPN Transistor	Motorola	√		√															
		2N2857A	NPN Transistor	Semicoa	√		√															
		2N2907A	PNP Transistor	Semicoa	√		√															
		2N3637	PNP Transistor	Semicoa	√		√															
		2N3700	NPN Transistor	Semicoa	√		√															
		4N49	Optocoupler	Micropac	√				√													
		AD768	16 biit DAC	Analog Devices	√		√															
		AD829	Operational Amplifier	Analog Devices	√		√	√														
		ADC1175	DC-DC Converter	Advanced Analog	√		√															
		AMA2805	DC-DC Converter	Advanced Analog	√		√	√														
		AMF2805D	DC-DC Converter	Advanced Analog	√		√	√														
		ARH2903.3S	DC-DC Converter	Advanced Analog	√		√															
		ARH2805S	DC-DC Converter	Advanced Analog	√		√															
		DG406	16 channel Multiplexer	Maxim	√		√															
		8585-8323	VCSEL	Emcore	√				√													
		HFE4083-322	VCSEL	Honeywell	√				√													
		IRFMG40	N-channel Power MOSFET	International Rectifier	√		√															
		LF2802A	N-channel MOSFET	M/A Com	√		√															
		LM124A	Operational Amplifier	National Semiconductor	√		√	√														
		LT1006A	Operational Amplifier	Linear Technology	√		√	√														
		LTC1157	MOSFET Driver	Linear Technology	√		√															
		LTC1604AIG	16 bit ADC	Linear Technology	√		√															
		MAX306	16 channel Multiplexer	Maxim	√		√															
		MAX539	12 bit DAC	Maxim	√		√															
		OPA687	Operational Amplifier	Burr-Brown	√			√														
		PSS-QP50-6-SM	Quadrant Photodiode	Pacific Silicon Sensor	√				√													
		UC1717	Stepper Motor Driver	Texas Instruments	√			√														
7, pp. 34-37	S. Aghara	MC1408-8	8 bit DAC	Motorola	√		√												√		√	
8, pp. 38-42	J. Bings	AD9225RH	12 bit ADC	Honeywell	√		√															
		AD9225	12 bit ADC	Analog Devices	√		√															
8, pp. 43-56	J. Coss	ADC704	Analog Multiplexer	Analog Devices	√									√								
		MAX4617	Analog Multiplexer	Maxim	√									√								
		MAX313	Analog Switch	Maxim	√									√								
		MAX4503	Analog Switch	Maxim	√									√								
		MAX4528	Analog Switch	Maxim	√									√								
		MAX4583	Analog Switch	Maxim	√									√								
		AD5305BRM	8 bit ADC	Analog Devices	√									√								
		SPT7760	8 bit ADC	Signal Processing Technology	√						√											
		AD7821	8 bit ADC	Analog Devices	√						√			√								
		ADC1175	8 bit ADC	National Semiconductor	√						√			√								
		AD1674	12 bit ADC	Analog Devices	√						√			√								
		AD6640	12 bit ADC	Analog Devices	√						√			√								
		AD7472BRU	12 bit ADC	Analog Devices	√									√								
		AD7476CEB	12 bit ADC	Analog Devices	√									√								
		AD7854	12 bit ADC	Analog Devices	√									√								
		AD7858	12 bit ADC	Analog Devices	√									√								
		AD7888	12 bit ADC	Analog Devices	√									√								
		AD7892BR	12 bit ADC	Analog Devices	√									√								
		AD9042AST	12 bit ADC	Analog Devices	√									√								
		AD9233	12 bit ADC	Analog Devices	√						√			√								
		LTC1272	12 bit ADC	Linear Technology	√						√			√								
		AD9240AS	14 bit ADC	Analog Devices	√									√								
		AD7661	16 bt ADC	Analog Devices	√									√								
		LTC1604	16 bt ADC	Linear Technology	√									√								
		LTC1603	16 bt ADC	Linear Technology	√									√								
		LTC1608	16 bt ADC	Linear Technology	√									√								
		AD7714	24 bit ADC	Analog Devices	√						√			√								
		TSB12LV26PZT	Link 1394 Fire Wire OHCI Chipset	Texas Instruments	√								√									
		TSB41AB3PFP	Physical 1394 Fire Wire OHCI Chipset	Texas Instruments	√								√									
		CS4210WJG	Link 1394 Fire Wire OHCI Chipset	National Semiconductor	√								√	√								
		CS4103VHG	Physical 1394 Fire Wire OHCI Chipset	National Semiconductor	√								√	√								
		AD8151	Crossbar Switch	Analog Devices	√						√											
		AD7564	12 bit DAC	Analog Devices	√									√								
		AD8420	12 bit DAC	Analog Devices	√						√			√								
		MAX539	12 bit DAC	Maxim	√						√			√								
		AD7535	14 bit DAC	Analog Devices	√									√								
		AD768	16 bit DAC	Analog Devices	√						√											
		ADSP2187L	16 bit DAC	Analog Devices	√						√			√								
		ADSP2189M	16 bit DAC	Analog Devices	√						√			√								
		LTC1657	16 bit DAC	Linear Technology	√						√			√								
		AFL12005SX/CH	DC-DC Converter	Advanced Analog	√						√											
		AFL12012DX/CH	DC-DC Converter	Advanced Analog	√						√											
		AFL12015DX/CH	DC-DC Converter	Advanced Analog	√						√											
		AHF2805S	DC-DC Converter	Analog Devices	√									√								
		AMF2805S	DC-DC Converter	Analog Devices										√								
		DVHF2803R3SF	DC-DC Converter	Virginia Power Technology	√							√		√								
		DVHF28L5S/ES	DC-DC Converter	Virginia Power Technology	√									√								
		DVSA2815S/ES	DC-DC Converter	Virginia Power Technology	√									√								
		DVTR2815S/ES	DC-DC Converter	Virginia Power Technology	√																	
		LCM-120	DC-DC Converter	IPT	√						√											
		MDI13051RED12ZF	DC-DC Converter	Modular Devices Incorporated	√									√								
		MDI3051RED15ZF	DC-DC Converter	Modular Devices Incorporated	√									√								
		MDI3051RED15ZF	DC-DC Converter	Modular Devices Incorporated	√									√								
		MDI3051RES05ZF	DC-DC Converter	Modular Devices Incorporated	√						√											
		MDI13051RES12ZF	DC-DC Converter	Modular Devices Incorporated	√						√											
		MDI13051RES15ZF	DC-DC Converter	Modular Devices Incorporated	√						√											
		ADSP-21020	Digital Signal Processor	Analog Devices	√						√			√								
		RH21020	Digital Signal Processor	BAE	√						√											
		TSC21020F	Digital Signal Processor	Atmel	√						√											
		EP20K400E	FPGA	Alterra	√						√			√								
		REP20K400E	FPGA	Alterra	√						√			√								
		AN10E40	Analog FPGA	Anadigm	√						√			√								
		PALCE22V10	PLD	Cypress	√						√			√								
		ATF22V10	EEPLD	Atmel	√						√			√								
		GAL22V10/883	EEPLD	Lattice Semiconductor	√						√			√								
		SCD 4026-1	Highside Driver	Sensitron Semiconductor	√										√							
		SCD-4028-1	Lowside Driver	Sensitron Semiconductor	√										√							
		54ABT16245	Transceiver	National Semiconductor	√							√		√								
		SNJ54ABT16245A	Transceiver	Texas Instruments	√							√		√								
		SN54LVT162245A	Transceiver	Texas Instruments	√									√								
		SN74LVTH162245	Transceiver	Texas Instruments	√									√								
		UT54ACS1612245	Transceiver	UTMC	√									√								
		SN74LVT16245B	Transceiver	Texas Instruments	√									√								
		SN74LVTH16244B	Transceiver	Texas Instruments	√									√								
		54ABT16244	Transceiver	National Semiconductor	√									√								
		SNJ54ABT16244	Transceiver	Texas Instruments	√						√			√								
		SNJ54ABT16244B	Transceiver	Texas Instruments	√						√			√								
		SN74LVT245B	Tri-state Buffer	Texas Instruments	√						√			√								
		SNJ54LVTH16244A	Tri-state Buffer	Texas Instruments	√						√			√								
		SNJ54LVTH244A	Tri-state Buffer	Texas Instruments	√						√			√								
		SN74ALVC16244A	Tri-state Buffer	Texas Instruments	√									√								
		SN74LVC16244A	Tri-state Buffer	Texas Instruments	√									√								
		SN54LVC04AFK	Tri-state Buffer	Texas Instruments	√									√								
		DS10320	128k bit SRAM	Mitsubishi	√						√			√								
		HM62256	32k bit SRAM	Hitachi	√						√											
		HM65756	32k bit SRAM	Matra	√						√											
		0325404CT3A	256M bit SDRAM	IBM	√						√		√	√								
		HM5225405B	256M bit SDRAM	Hitachi	√								√	√								
		HYS7V56420	256M bit SDRAM	Hitachi	√								√	√								
		KM44S32030A	256M bit SDRAM	Samsung	√								√	√								
		KM44S32030B	128M bit SDRAM	Samsung	√								√	√								
		KM44S64230A	128M bit SDRAM	Samsung	√						√		√	√								
		KM44S64230D	256M bit SDRAM	Samsung	√						√			√								
		KM444V16004B	16M x 4 DRAM	Samsung	√						√			√								
		ACT-F2M32A	2M x 32 NVRAM	Aeroflex	√						√			√								
		SDTNF-12	64M x 8 NVRAM	SND	√						√			√								
		TC58512FT	64M x 8 NVRAM	Toshiba	√						√			√								
		Pentium III	Microprocessor	Intel	√						√		√	√								
		PPC750	Microprocessor	IBM	√																	
		XPC750	Microprocessor	Motorola	√																	
		LSP2916	High Voltage Driver	Agere Systems	√						√			√								
		PE9301	Prescaler	Peregrine Semiconductor	√							√										
			Active Pixel Sensor	Photobit	√									√								
		Test Structure	Prescaler 5HP SiGe	IBM	√						√	√										
		AMP01	Instrumentation Amplifier	Analog Devices	√									√								
		INA117	Difference Amplifier	Burr-Brown	√									√								
		LM124A	Operational Amplifier	National Semiconductor	√						√											
		Mii42142	Power Operational Amplifier	Micropac	√						√			√								
		OP16	Operational Amplifier	Analog Devices	√									√								
		OP37	Operational Amplifier	Analog Devices	√									√								
		OP42	Operational Amplifier	Analog Devices	√									√								
		Mii53124	Power MOSFET Optocoupler	Micropac	√									√								
		Mii53253	Power MOSFET Optocoupler	Micropac	√									√								
		IL710	Isolator	Non Volatile Electonics	√						√			√								
		X9C503	Digital Potentiometer	Xilinx	√						√			√								
		MH08AFLMX2350	Frequency Synthesizer	National Semiconductor	√									√								
		RF2670	Automatic Gain Control	RF Micro	√									√								
		UC1842JG	Pulse Width Modulator Controller	Unitrode	√									√								
		LM2651	Switching Regulator	National Semiconductor	√						√											
		LP3470	Voltage Supervisor	National Semiconductor	√							√										
		MSK5042	Switching Regulator	MS Kennedy	√																	
		HS139	Voltage Comparator	Harris Semicondcutor	√									√								
		LM139	Voltage Comparator	National Semiconductor	√									√								
		CNP402	Voltage Comparator	Analog Devices	√									√								
		MAX975EAU	Voltage Comparator	Maxim	√									√								
		LM119	Voltage Comparator	National Semiconductor	√						√											
		MS-SW16-8S	Myrinet Crossbar Switch	Myrinet	√						√		√									
		Lanai9	Myrinet NIC Protocol Processor	Myrinet	√						√		√									
		SerDeser	MYR12 Serializer-Deserializer	Myrinet	√						√											
		PCIDMA	Mrinet PCI to DMA	Myrinet	√						√											
		VCS7146RH	Myrinet Transceiver	Myrinet	√						√											
		K7N80360M	SRAM	Myrinet	√						√											
		MTX8501	Transmitter	Emcore	√						√											
		MTX8501	Receiver	Emcore	√						√											
		HCPL6651	Optocoupler	Agilent	√							√										
		P2824	Optocoupler	Hamamatsu	√							√										
		66099	Optocoupler	Micropac	√							√										
		4N49	Optocoupler	Micropac	√							√										
		4N49S	Optocoupler	Micropac	√							√										
		6N140	Optocoupler	Micropac	√							√										
		Mii53124	Power MOSFET Optocoupler	Micropac	√							√										
		Mii53250	Optocoupler Relay	Micropac	√							√										

		Mii53253	Power MOSFET Optocoupler	Micropac	√							√										
		Mii53258	Optocoupler Relay	Micropac	√							√										
9, pp. 57-64	D. Cochran	SG7805	Voltage Regulator	Linfinity	√		√															
		SG7815	Voltage Regulator	Linfinity	√		√															
		SG7815	Voltage Regulator	Linfinity	√		√															
		LM139	Voltage Comparator	National Semiconductor	√		√															
		LP2951	Voltage Regulator	National Semiconductor	√		√															
		MIC29302	Low Dropout Voltage Regulator	Micrel	√		√															
		LM2651MTC-ADJ	Switching Regulator	National Semiconductor	√		√															
		OP27ARC	Operational Amplifier	Analog Devices	√			√														
		OP97	Operational Amplifier	Analog Devices	√			√														
		OP221	Operational Amplifier	Analog Devices	√			√														
		OP296	Operational Amplifier	Analog Devices	√			√														
		AD743	Operational Amplifier	Analog Devices	√			√														
		AD822	Operational Amplifier	Analog Devices	√			√														
		LM6144	Operational Amplifier	National Semiciondductor	√			√														
		LP2953	Voltage Regulator	National Semiciondductor	√			√														
		LM193	Voltage Comparator	National Semiciondductor	√			√														
		AD625	Instrument Amplifier	Analog Devices	√			√														
		AD625	Analog Switch	Analog Devices	√			√														
		MAT02	NPN Transistor Pair	Analog Devices	√			√														
		MAT03	PNP Transistor Pair	Analog Devices	√			√														
		AD5334	8 bit DAC	Analog Devices	√		√															
		P140	Power Controller	Leach International	√		√															
		TPS9103	Power Supply	Texas Instruments	√		√															
			R-S Encoder	AMI	√		√															
		LTC1657CGN	16 bit DAC	Linear Technology	√		√															
		ADC1175CIJM	8 bit DAC	National Semiconductor	√		√															
		HV583	Serial to Parallel Converter	Supertek	√		√															
		MRX8501	Fiber Optic Receiver	Emcore	√															√		
		MTX8501	Fiber Optic Transmitter	Emcore	√															√		
		MI66099	Optocoupler	Micropac	√															√		
		MI66099	Optocoupler	Micropac	√															√		
		CO-566	Oscillator	Vectron	√				√											√		
		CO-718S	Oscillator	Vectron	√				√													
		AD7664	16 bit ADC	Analog Devices	√				√													
		ColdFire	Microprocessor	Motorolla	√				√													
		SH-4	Microprocessor	Hitachi	√				√													
		GP2021	GPS correlator	Zarlink Semiconductor	√				√													
10, pp. 65-76	M. O'Bryan	AD623	Operational Amplifier	Analog Devices	√							√		√								
		LM124	Operational Amplifier	National Semicinductor	√							√		√								
		LM193	Voltage Comparator	Texas Instruments	√							√		√								
		LMC6484	Operational Amplifier	National Semicinductor	√							√		√								
		LT1128	Operational Amplifier	Linear Technology	√							√		√								
		OP293	Operational Amplifier	Analog Devices	√							√		√								
		OP42	Operational Amplifier	Analog Devices	√							√		√								
		OP727	Operational Amplifier	Analog Devices	√							√		√								
		OPA2347	Operational Amplifier	Texas Instruments	√							√		√								
		HV583	Serial to Parallel Converter	Supertek							√			√								
		LTC1149	Switching Regulator	Linear Technology								√		√								
		MSK5042	Switching Regulator	National Semicinductor								√	√									
		IRF640	N-channel Power MOSFET	International Rectifier											√	√						
		IRLL110	N-channel Power MOSFET	International Rectifier											√	√						
		ATF22V10	EEPLD	Atmel					√				√	√								
		MCF5307	Microprocessor	Motorola							√		√	√								
		SG1525A	Pulse Width Modulator Controller	Linfinity							√		√									
		SH-4	Microprocessor	Hitachi							√		√									
			R-S Encoder	AMI Semiconductor							√			√								
		SPT7760	8 bit ADC	Signal Processing Technology							√											
		Test Structure	Transistor, 5HP SiGE HBT	IBM							√											
		Test Structure	PRN, 7HP SiGE HBT	IBM							√											
		Test Structure	Transistor, 7HP SiGE HBT	IBM							√											
		AD8151	8 bit ADC	Analog Devices								√	√									
		GP2021	GPS correlator	Zarlink Semiconductor							√		√	√								
		TPS9103	Power Supply	Texas Instruments								√		√								
		KM48C8000	64M bit DRAM	Samsung							√		√	√								
		AD5334	8 bit DAC	Analog Devices										√								
		AD7414	Temperature Sensor	Analog Devices										√								
		AD7664	16 bit ADC	Analog Devices										√								
		TMP36	Temperature Sensor	Analog Devices										√								
		Test Structure	Ring Oscillator, 5HP BiCMOS	IBM										√								
		CO566	Oscillator	Vectron										√								
		CO718S	Oscillator	Vectron										√								
11, pp. 77-82	R. Koga	KM44V16004BKμμ	64 Mbit DRAM	Samsung	√						√			√								
		KM44V16004CK	64 Mbit DRAM	Samsung	√						√			√								
		KM44V16004DK	64 Mbit DRAM	Samsung	√						√			√								
		KM44S32030T	128 Mbit SDRAM	Samsung	√						√		√	√								
		KM44S32030AT	128 Mbit SDRAM	Samsung	√						√		√	√								
		KM44S32030BT	128 Mbit SDRAM	Samsung	√						√		√	√								
		28F320C3BA	32 Mbit Flash		√						√		√									
		28F320C3BC	32 Mbit Flash		√						√											
		LM139	Voltage Conparator	National Semiconductor	√							√										
12, pp. 83-88	J. George	μPD4382322-A	256k x 32 SRAM	NEC	√						√			√								
		TC55VD836	256k x 36 SRAM	Toshiba	√						√			√								
		IDT71V67603	256k x 36 SRAM	IDT	√						√			√								
		IDT71V424	512k x 8 SRAM	IDT	√						√			√								
		CY7C1360A	256k x 36 SRAM	Cypress	√						√			√								
		K7M801825B	512k x 9 SRAM	Samsung	√						√			√								
		AS5SS256K36	256k x 36 SRAM	Austin Semiconductor	√						√			√								
13, pp. 89-91	S. Shojab-Ardalan	PC10	Ultracapcitor	Maxwell	√		√		√													
		PC100	Ultracapcitor	Maxwell	√		√		√													
		PC1000	Ultracapcitor	Maxwell	√		√		√													
14, pp. 92-97	C. Yui	X-2V1000	SRAM FPGA	Xilinx	√						√		√	√								
15, pp. 98-101	T. Langley		512MB SDRAM	Samsung	√						√		√	√								
			512MB SDRAM		√						√		√	√								
16, pp. 102-107	C. Poivey	MDM1400G-120	4M x 1 DRAM	Hitachi	√	√					√											
17, pp. 108-112	D. Hiemstra	ZFx86	Microcontroller	ZFMicroSolutions	√				√		√		√	√								
18, pp. 113-120	L. Selva	IRHYG30CMSE	Power MOSFET	International Rectifier	√										√	√						
		IRFMG40	Power MOSFET	International Rectifier	√										√	√						
		IRHY7434	Power MOSFET	International Rectifier	√										√	√						
		RFP4N100	Power MOSFET	Fairchild	√										√	√						
		APT10088HVR	Power MOSFET	Advanced Power Technology	√										√	√						
		APT1004RCN	Power MOSFET	Advanced Power Technology	√										√	√						
19, pp. 121-126	M. Savage	LM124A	Operational Amplifier	National Semiconductor	√							√										
		LM111	Voltage Reference	National Semiconductor	√							√										
		LM6144	Operational Amplifier	National Semiconductor	√							√										
20, pp. 127-132	K. Chiba	μPD434008LE-25	4 Mbit SRAM	Toshiba	√						√			√								
		TC55400FTL-85	4 Mbit SRAM	NEC	√						√			√								
		μPD4265800LE-A60	64 Mbit DRAM	NEC	√						√			√								
		HM5165805ATT-6	64 Mbit DRAM	Hitachi	√						√			√								
		HN58C1001FPI-15	1 Mbit EEPROM	Hitachi	√						√			√								
		TC58F401F-10	4 Mbit Flash	Toshiba	√						√			√								
21, pp. 133-140	J. Howard	SG1525A	PWM Controller	Linifinity	√						√			√								
22	n/a																					
23, pp. 141-144	E. Cascio		NPTC proton beam facilities																	√		
24, pp. 145-148	N. Abrossimov		PNPI proton beam properties																	√		
25, pp. 149-155	E. Blackmore		TRIUMF proton and neutron facilties																	√		
26, pp. 156-164	J. Lintz	RHPPC	Microprocessor	Honeywell	√						√			√								
27, pp. 165-168	J. Seon	68630	Microprocessor	ARMEL	√				√		√											
		Custom	GaAs MMIC	TRW	√				√		√											
28, pp. 169-174	P. Layton	8409RP	8 bit DAC, DAC8408GBC	Maxwell	√						√			√								
		338RP	Analog Multiplexer, MAX338	Maxwell	√		√				√	√		√								
		7B991RP	Clock Buffer	Cypress	√		√				√			√								
		K6R4008C1D	4M bit SRAM	Samsung	√						√			√								
		54BCT245RP	Transceiver	Texas Instruments	√									√								
		PPC750FX	Microprocessor	IBM	√						√			√								
		27C010TRP	1M bit PROM, HC27C1010A	Maxwell, Hitachi	√		√															
		29F0408RP	32M bit Flash, KM29W32000	Maxwell, Samsung	√		√															
		306RP	Analog Multiplexer, MAX306	Maxwell, Maxim	√		√															
		7805ALPRP	16 bit ADC, ADS7805	Maxwell, Burr-Brown	√		√															
		8143RP	12 bit DAC, DAC8143	Maxwell, Analog Devices	√		√															
		9240LPRP	14 bit ADC, AD9240	Maxwell, Analog Devices	√		√															
		54LVTH162244RP	Driver/Buffer, 74LVTH162244	Maxwell, Texsas Instruments	√		√															
		54LVTH16373RP	D-type latch, 74LVTH16373	Maxwell, Texsas Instruments	√		√															

Once the paper(s) with the response data required has been located it is the radiation effects engineer's responsibility to perform a detailed review to establish applicability.