 ESA PROCE	EDURES, SPE	CIFICATION	NS & STA	ANDARDS			
-							
		•				}	
	ALL	NUMBER OCATEI at 4 March)				
				•			
						grad.	

Nos all.		ESA P	SS-01 SERIES 31 March '92
Item no.	Issue no.	Date	Title
0	1	May '81	Basic requirements for product assurance of ESA spacecraft and associated equipment.
001			Glossary of PA and safety terms.
10	1	May '81	Product assurance management and audit systems for ESA spacecraft and associated equipment.
101	1	Feb '83	Software quality assurance plans.
102			Product assurance data package requirements at major reviews.
11	1	Mar '89	Configuration management and control for ESA space systems.
110			Software configuration management for ESA space systems.
111			Software PA standards.
12			ESA contractor product assurance assessment system.
20	2	Feb '91	Quality assurance requirements for ESA space systems.
201	1	Aug '83	Contamination and cleanliness control.
202	1	June '83	Preservation, storage, handling and transportation of ESA spacecraft hardware.
203	1	Aug '83	Quality assurance of test houses for ESA spacecraft and associated equipment.
204	1	Sep '84	Particulate contamination control in clean rooms by particle fallout (PFO) measurements.
21	2	Apr '91	Software product assurance requirements for ESA space systems.
220			Software quality assurance for ESA space systems.
230			Software reliability assurance for ESA space systems.
240			Software safety assurance for ESA space systems.
250			Software maintainability assurance for ESA space systems.

×

Nos. all.		ESA PS	SS-01 SERIES 10 March '95
Item no.	Issue no.	Date	Title
30	2	Mar '92	Reliability assurance requirements for ESA space systems.
301	1 _	Dec '82	Derating requirements and application rules for electronic components.
	2	Apr '92	Derating requirements applicable to electronic, electrical and electro-mechanical components for ESA space systems.
302	in House die	14	Failure rates for ESA space systems.
303			Requirements for failure mode, effects and criticality analysis and associated activities on ESA space systems.
304			Contingency analysis.
306			Nonelectronic reliability.
31			Software reliability.
310			Guide to measure for reliable software.
311			Standard for software quality metrics.
32			Human reliability.
321	-		Human reliability analysis.
40	2	Sep '88	System safety requirements for ESA space systems.
400			Safety review data package requirements for ESA space systems
401	1 2	Mar '89 Nov '94	ESA fracture control requirements.
402			Design safety requirements for ESA space systems.
403			Hazard analysis requirements and methods for ESA space systems
404			Risk assessment requirements and methods for ESA space systems
405			Expert judgement.
406			Payload safety requirements.
407			Safety review requirements for ESA space systems

Nos. all.	······································	ESA PS	S-01 SERIES 4 March '96
Item no.	Issue no.	Date	Title
408			Accident/incident reporting and investigation.
409			Safety certification requirements for ESA space systems
410			Safety risk management.
411	1	Jan '94	Sneak analysis methods and procedures for ESA space programmes.
50	1	Nov '91	Maintainability requirements for ESA space systems.
501			Maintainability analysis.
502			Maintainability demonstration.
60	2	Nov '88	Component selection, procurement and control for ESA space systems.
603	2 3	Jun '85 Sep '95	ESA preferred parts list.
604	1	Sep '88	Generic specification for silicon solar cells.
605	1	May '90	Capability approval programme for hermetic thin-film hybrid microcircuits.
606	1	Jul '86	The capability approval programme for hermetic thick-film hybrid microcircuits.
607	1	Nov '90	Checklist for thick film hybrid microcircuits manufacturer and line survey.
608	2	Apr '87	Generic specification for hybrid microcircuits.
609	1	May '93	Radiation design handbook.
610	1	Nov '91	Design guidelines for capability approval of film hybrid microcircuits and microwave hybrid integrated circuits (MHIC's).
611	1	Nov '90	Checklist for thin film hybrid microciruits manufacturer line survey.
612	1	Nov '90	Capability approval programme for microwave hybrid integrated circuits.
70	3	Oct '87	Materials and process selection and quality control
	4	Jan '94	for ESA space systems and associated equipment. Material, mechanical-part and process selection and quality control for ESA space systems.

Nos. all.		ESA P	SS-01 SERIES 7 March '95
Item no.	Issue no.	Date	Title
700	1	Oct '87	The technical reporting and approval procedure for materials and processes.
	2	Aug '93	The technical reporting and approval procedure for materials, mechanical parts and processes.
701	1 (Rev. 1) (Rev. 2) (Rev. 3)	Nov '85 Sep '88 Jun '90 Jan '94	Data for selection of space materials.
702	1	Mar '83	A thermal vacuum test for the screening of space materials.
703	1	Oct '82	The black-anodising of aluminium with inorganic dyes.
704	1	Aug '82	A thermal cycling test for the screening of space materials and processes.
705	1	Oct '82	The detection of organic contamination of surfaces by infrared spectroscopy.
706	1	Mar '83	The particle and ultraviolet (UV) radiation testing of space materials.
707	1	Feb '84	The evaluation and approval of automatic machine wave soldering for ESA spacecraft hardware.
708	1	Mar '85	The manual soldering of high-reliability electrical connections.
709	1	July '84	Measurement of thermo-optical properties of thermal control materials.
710	1	Oct '85	The qualification and procurement of two-sided printed-circuit boards (fused tin-lead or gold-plated finish).
711	1	Oct '82	Product assurance requirements for Micro VCM-apparatus and associated equipment.
712	1	Aug '83	The oil impregnation of phenolic-resin-based materials used in the fabrication of ball-bearing cages.
713	1	Oct '82	Measurement of the peel and pull-off strength of coatings and finishes with pressure-sensitive tapes.
716 Stot to 6 Ety. 110358	5025-070-00 5025-070-00 5025-070-00	Oct '82	The listing and approval procedures for materials and processes.

Nos. all.	***************************************	ESA PS	SS-01 SERIES 26 April '94
Item no.	Issue no.	Date	Title
717			Multilayer board.
718	1	Oct '87	The preparation, assembly and mounting of RF coaxial cables.
719			Preparation and application of electrically conductive and nonconductive aluminium coatings.
720	1	July '85	Determination of the susceptibility of silver-plated copper wire/cable to 'red plague' corrosion.
721	2	Apr '92	Flammability testing for the screening of space materials.
722	2	Dec '90	The control of limited-life materials.
723			The thermal stripping of Teflon and Kapton insulated cables.
725	1	Dec '82	The application of the black paint CHEMGLAZE Z306.
726	2	Dec '90	The crimping of high-reliability electrical connections.
727	1	Oct '82	The cleaning of ECCOSORB AN foam.
728	2	Mar '91	The repair and modification of printed-circuit board assemblies for space use.
729	1	Feb '89	The determination of offgassing products from materials and assembled articles to be used in a manned space vehicle crew compartment.
730	1	Mar '91	The wire wrapping of high-reliability electrical connections.
731			The application of black electrically conductive coating ELECTRODAG 501.
732	1	Dec '82	The cleaning of GUDE-SPACE D96 tape.
733	1	Oct '82	The application of the thermal-control paint PYROLAC PSG 120 FD.

Nos. all.		ESA P	SS-01 SERIES 17 August '94
Item no.	Issue no.	Date	Title
734	1	Feb '83	The application of the black electrically conductive coating CHEMGLAZE H322.
735	1	Dec '82	The application of the black electrically conductive coating CHEMGLAZE L300.
736	1	May '81	Material selection for controlling stress-corrosion cracking.
737	1	Sep '81	Determination of the susceptibility of metals to stress-corrosion cracking.
738	1	Mar '91	High-reliability soldering for surface-mount and mixed-technology printed-circuit boards.
739			The reduction of the thickness of Kapton foil by chemical etching.
740			
741			
742			A standard method for the evaluation of materials to be used in space.
743			The determination of the bulk conductivity of thermal-control materials used on spacecraft.
744			Long-life testing of mechanical properties.
745	1	May '93	Standard fracture-mechanics, fatigue and related test methods for ESA space systems.
746	1	Jun '93	General requirements for threaded fasteners.
747			The technical reporting and approval procedure for mechanical parts.
748	1	Mar '92	Requirements for ESA-approved skills training and certification (electronic assembly techniques).

Nos. all.		ESA 1	PSS-01 SERIES 26 April '94
Item no.	Issue no.	Date	Title
80			AIV guidelines.
801			System test requirements for ESA spacecraft.
802			Environment requirements specification for space equipment: Unit level environmental test specification.
803			Antenna test range validation.
804			Specification for the measurement of the electrical performance of spacecraft solar arrays (flasher test).
			for PSS-01-8== Obrefts ask Michel Vlein
			ask Michel Vlein
		<u>}</u>	
		} }	

Nos. all.		ESA F	PSS-02 SERIES 22 June '93
Item no.	Issue no.	Date	Title
0			
10	1 1	Nov '92 Nov '92	Power standard (Vol 1). Rationale for the power standard (Vol 2).
101		·	Guidelines for the establishment of a power supply subsystem specification.
102			Guidelines for the establishment of an electrical unit specification.
103			Solar cell design requirements.
11			Test methods for the ESA power standard.
12			Power and signal cabling standard.
13			Ni-H ₂ cell, battery standard.
14			Ni-Cd cell, battery standard.
20			ESA standard on EMC requirements for space systems.
201			EMC design guidelines for space systems.
202			EMC test and verification requirements for space systems.
30			Requirements for the procurement of travelling wave tube amplifiers for ESA space systems.
301			Audit requirements for travelling wave tube amplifiers for ESA space systems.
302			Design requirements for travelling wave tube amplifiers for ESA space systems.
303			Requirements for HV transformers and components used in electronic power conditioners.
	·		
			•

Nos. all.		ESA P	SS-03 SERIES 4 March '96
Item no.	Issue no.	Date	Title
0			Mechanical engineering and human factors
10			Thermal control design and verification.
101	·		Space and planetary reference data.
102	·		Space and planetary reference data
103			Space and planetary reference data.
104			Space and planetary reference data.
105	2	Nov '91	ESATAN user manual.
106			ESARAD user manual.
107			ICETAS user manual.
108	1	Nov '89	Spacecraft thermal-control design data handbook.
109			Heat pipe qualification requirements. (Was PSS-49)
20			Structures
202			Fracture-control guidelines.
1101 203	1 1	Dec '86 Feb '94	Composites design handbook. Structural materials handbook.
1201 (204)	1	Dec '86	Structural acoustics design manual.
205			Design load handbook.
1202 (206)	1	Jun '87	Insert design handbook.
207	1	Dec '90	Guidelines for carbon and other advanced fibre prepreg procurement specifications.
208	1	Dec '89	Guidelines for threaded fasteners.
209	2	Jan '95	ESACRACK user's manual (was ESA PSS-03-1204)
210	1	Feb '90	Adhesive bonding handbook for advanced structural
	2	Mar '95	materials.
211			Containment design and analysis guidelines for ESA space systems.

Nos. all.		ESA P	SS-03 SERIES 30 August '95
Item no.	Issue no.	Date	Title
212	1	Mar '95	Aide memoire on structural materials and space engineering
_ 30			Mechanisms
40	1	Dec '92	Environmental control and life support.
401	1	Jun '92	Atmosphere quality standards in manned space vehicles.
402	1	Oct '94	Water quality standards in manned space vehicles.
403			Food and galley management and control standards.
404			Hygiene/solid-waste management and control standards.
405			ECOSIM software user manual.
406	1	Aug '91	Life support and habitability manual.
50			Propulsion
501			Monopropellant hydrazine propellant.
502			Monomethyl hydrazine propellant.
503			Mixed oxides of nitrogen (MON) propellants.
504			Chemical cleaning of propulsion system parts, components and systems for storable propellants.
505			Fusion joining of propulsion systems.
506			Mechanical joining of propulsion systems.
509			European propulsion system components catalogue.
510			In-orbit propellant-transfer requirements.
60			MGSE
70	1	Jul '94	Human factors
80			Pyrotechnics standard

Nos. all.		ESA P	SS-04 SERIES 26 April '94
Item no.	Issue no.	Date	Title
0	1	Mar '91	Space data communications
10			Space link standards and protocols
101			Packet utilisation standard.
103	1	Sep '89	Telemetry channel coding standard.
104	2	Mar '91	Ranging standard Volume 1: Direct ground to spacecraft ranging.
105	1	Dec '89	Radio frequency and modulation standard.
106	1	Jan '88	Packet telemetry standard.
107	2	Apr '92	Packet telecommand standard.
108			Advanced orbiting systems: network and data-link standard.
109			DRS radio frequency and modulation standard.
110			DRS ranging standards.
111			DRS channel coding standards.
151	1	Sep '93	Telecommand decoder specification.
154			AOS LOTOS specification.
20	}		Spacecraft data interfaces and protocols
201			Data system user interface standards.
202			Time code formats and procedures.

Nos. all.	· · · · · · · · · · · · · · · · ·	ESA P	SS-05 SERIES 4 March '96
Item no.	Issue no.	Date	Title
0	2	Feb '91	ESA software engineering standards.
01	1	Oct '91	Guide to the software engineering standards.
02	1	Oct '91	Guide to the user requirements definition phase.
03	1	Oct '91	Guide to the software requirements definition phase.
04	1	Jan '92	Guide to the software architectural design phase.
05	1	May '92	Guide to the software detailed design and production phase.
06	1	Oct '94	Guide to the software transfer phase.
07	1	Dec '94	Guide to the software operations and maintenance phase.
08	1	Jun '94	Guide to software project management.
09	1	Nov '92	Guide to software configuration management planning.
10	1	Feb '94	Guide to software verification and validation.
11	1	Jul '93	Guide to software quality assurance.
03-01			Guide to structured analysis.
05-01			Guide to Fortran coding.
05-02			Guide to Ada coding.
05-03			Guide to C coding.
08-01			Guidelines to the selection and use of CASE tools.
		·	
		1	

Nos. all.		ESA PS	SS-06 SERIES 30 September '91
Item no.	Issue no.	Date	Title
10			ESA costing requirements
101	1	Jan '90	ECOS users manual and menu navigator.
20			ESA guidelines for project review.
30			Project management
40			Project control
50			Documentation
		•	
			الجيرين. التي التي التي التي التي التي التي التي

Nos. all.		ESA P	SS-07 SERIES 7 March '95
Item no.	Issue no.	Date	Title
0	1	March '92	Ground segment infrastructure standards
10			Mission data utilisation
100			Mission data utilisation standard
101	1	May '94	Packet utilisation standard
20			Mission data description
201			Packet data description standard
30			Mission data exchange
40			Ground system functions
50			Mission operations requirements
501			Space segment operability requirements
60			Man/computer interaction
70			Ground system test & validation
			فهر.

Nos. all.		ESA F	PSS-08 SERIES	1 Feb '90
Item no.	Issue no.	Date	Title	
0			Natural and induced environments	
10			Natural environment	
20			Induced environment	
				es.

Nos. all.		ESA 1	PSS-09 SERIES	1 Feb '90
Item no.	Issue no.	Date	Title	
0			RVD, robotics and controls	
10			RVD reference specification.	
20			AOCS reference specification.	
30			Robotics reference specification.	
	ļ			
				ş.di

Nos. all.		ESA PS	S-10 SERIES	1 Feb '90	0
Item no.	Issue no.	Date	Title		
0			Information exchange standards		
10		•	Documentation standards.		
20			Project control standards.		
30			Technical speciality standards.		
i					
					, y-22

Nos. all.		ESA I	PSS-11 SERIES 26 April '94
Item no.	Issue no.	Date	Title
0			Basic requirements for a data security programme.
10			Guide to ESA Data Security Programme
101			Administrative aspects of ESA DSP (Personnel)
102	}		Administrative aspects of ESA DSP (Legal Insurance)
20			Guide to physical security of computer facilities
201			Construction of new facilities
30			Guide to access to use of computer facilities
301	,	2	Resource access control facility
302			Access control facility
303			UNIX security
40			Guide for application programmers, operators and technical support
401			Catalogue: security aspects of specific operating instructions
402			Applicable use of ESA PSS-05 documents
50			Guide to microcomputer security
501			Virus control programs

Nos. all.		ESA PS	SS-12 SERIES 26 April '9
Item no.	Issue no.	Date	Title
0			Basic requirements for site safety and security.
10			Risk assessment categorisation.
20			Site safety.
30			Site security.
40			Environment protection.
50			Risk control.
60			Disaster recovery planning.
		:	